

VISION ZERO

2017 PROGRESS REPORT



City of Seattle



Seattle
Department of
Transportation



V I S I O N
Z E R Ø

SAFER STREETS FOR SEATTLE

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INTRODUCTION

In February 2015, Seattle launched Vision Zero alongside city leaders, safe streets advocates, and friends and family of those who have been impacted by traffic crashes. Vision Zero is our effort to end serious and fatal crashes by 2030. Since then, we've made progress toward our goal of improving safety for everyone who travels on Seattle's streets.

We redesigned a one-mile stretch of Rainier Avenue South, one of the city's most crash-prone corridors. In November 2015, voters approved the [Levy to Move Seattle](#), which directs millions annually toward Vision Zero engineering efforts.

In early 2016, Seattle joined a group of 10 cities to become part of a national [Vision Zero Network](#), providing a great opportunity to collaborate with other cities tackling similar issues.

In late 2016, we lowered the speed limit to 20 MPH on more than 2,400 miles of residential streets and dropped the speed limit to 25 MPH on 80 miles of arterial streets, with more to come. We also opened the Westlake protected bike lane and are closing in on the final segment of the Burke Gilman Trail. We've enhanced pedestrian crossings throughout the city and we released a 5-year action plan for Safe Routes to School. These are a few of many positive strides toward safer streets.

But we've also faced considerable challenges.

We saw a tragic collision on the Aurora Bridge that took the lives of 5 people and injured dozens. We've had pedestrians over age 55 disproportionately impacted by traffic crashes. And we've seen behavioral issues like inattention contribute to more serious collisions.

In the two years since we kicked off Vision Zero, more than 40 people have died and more than 350 people have been seriously injured on Seattle's streets. Behind these statistics are stories, sadness, and memories. These were students and teachers, parents and grandparents, sons and daughters, and our friends and neighbors. And unfortunately, Seattle is not alone.



Mayor Murray launched Vision Zero in February 2015.

TRENDS

Nationally, fatal crashes have been increasing. In 2015, more than 35,000 people were killed in collisions across the country, a 7.2% increase over 2014. Another 2.3 million people were injured.

These national increases are likely due to more people on the road (more vehicle miles traveled). National Highway Traffic Safety Administration officials cite three main causes for the increase: people not wearing seatbelts, drunk driving, and distracted driving.

Washington State had 568 traffic fatalities in 2015, with 22 of these in Seattle. This marks the first time since 2008 that we had more than 500 traffic deaths in a single year in our state.

Seattle has not been immune to national trends. 2015 saw an 8% increase in fatalities on our streets. Preliminary data show that increase remained essentially unchanged in 2016.

While Seattle operates one of the safest urban street networks worldwide, on par with our peers in New York City, even one death or serious injury is one too many. And we have a pretty clear sense of the contributing factors to most crashes.

TABLE 1: TRAFFIC FATALITY RATE PER 100,000 POPULATION (PRELIMINARY DATA INDICATE 22 FATALITIES IN 2016)

	Fatalities per 100,000 population	2015 Fatalities
Sweden	2.30	230
Seattle	3.07	21
New York City	3.18	272
Washington State	7.92	568
United States	10.92	35,092

CONTRIBUTING FACTORS TO CRASHES IN SEATTLE



Distraction

Here at home, we've seen a 300% increase in distracted driving over the past 3 years, contributing to 3,000 crashes annually (30% of total crashes)



Impairment

Impairment contributes to an average of 500 crashes annually, and 20% of fatal crashes each year



Speeding

20% of fatal crashes involve speeding

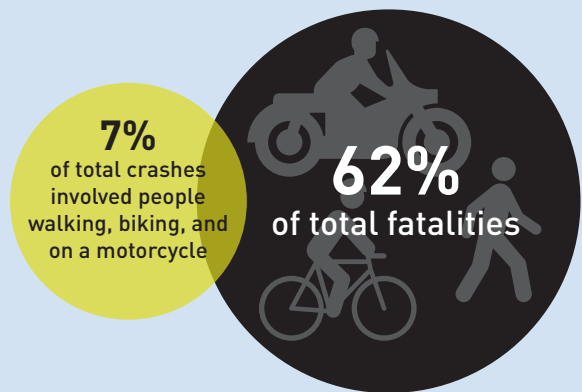
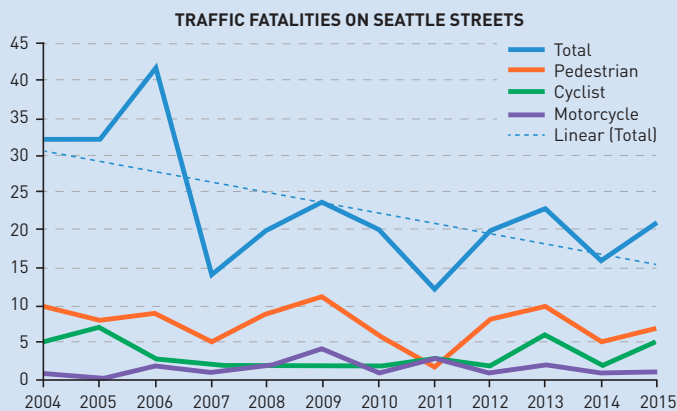


Failure to Yield to Pedestrians

More than 200 injury collisions, and 10% of fatal pedestrian collisions each year

LOOKING OUT FOR THE MOST VULNERABLE

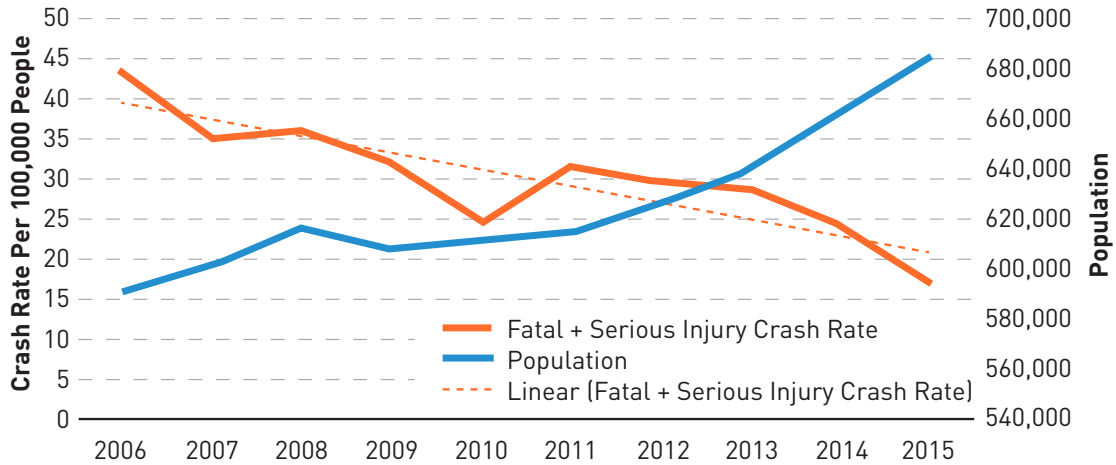
In the last decade, hundreds of people have been involved in serious collisions in Seattle. This includes drivers and passengers, pedestrians, bicyclists, and motorcyclists. Vulnerable users – people walking, biking, and riding motorcycles – continue to make up a disproportionate amount of traffic deaths. Of the 10,930 police-reported collisions that occurred in 2015, less than 1,000 collisions involved people walking, biking, or riding a motorcycle, yet these travelers make up more than 60% of fatalities.



In crashes, there's often a fine line between a serious injury crash and a fatal collision. Serious injury collisions may include severe lacerations, broken bones, head injuries, and other instances where the person is not able to leave the crash scene without assistance. By taking a hard look at serious injury crashes, we gain insights into crash types, incident locations, and contributing factors. Looking ahead, we can use this data to help drive education and outreach efforts, as well as targeted enforcement.

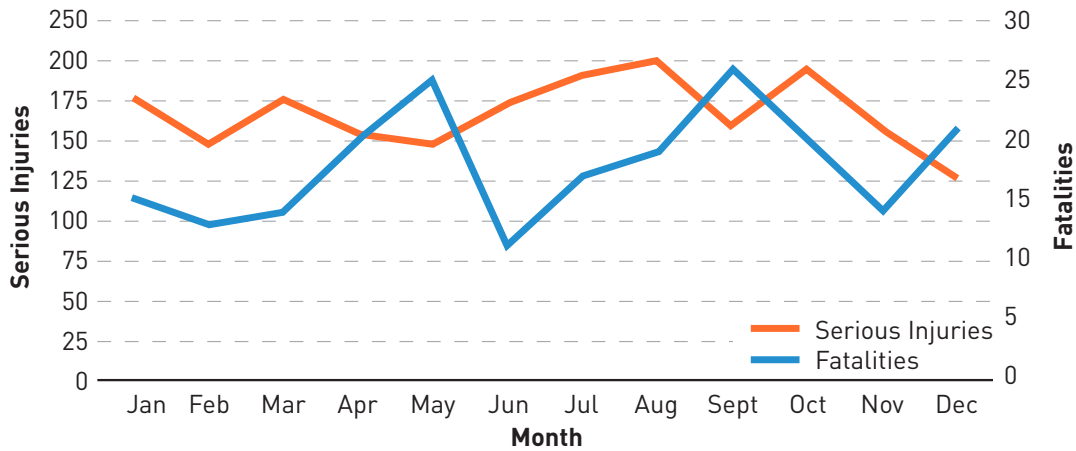
Despite a population increase of nearly 100,000 residents since 2006 and fluctuating traffic volumes, Seattle continues to see declining fatal and serious injury collision rates. While the trend for fatal and serious injury collisions continues to head in the right direction, between 150 and 320 of these most serious collisions have occurred each year for the last decade.

FATAL AND SERIOUS INJURY CRASH RATE TREND, 2006-2015



From 2006 through 2015, more than 200 people were killed on our streets. The frequency of fatalities spikes several times throughout the year, while the frequency of serious injuries peaks in mid- to late-summer. When looking at serious injuries and fatal collisions together, July, August, and October emerge as the months with the highest frequency of serious and fatal collisions.

FATAL AND SERIOUS INJURIES COLLISIONS BY MONTH, 2006-2015



10-YEAR FATAL AND SERIOUS INJURY COLLISIONS BY MONTH, 2006 - 2015

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
Fatal	15	13	14	20	25	11	17	19	26	20	14	21	216
Serious injury	177	147	175	155	147	173	191	200	158	195	158	126	2002
Total	192	160	189	175	172	184	208	219	184	215	172	147	2218

Safety for drivers and passengers has improved significantly over the last decade due to advancements in vehicle safety technology and outstanding emergency response times from the Seattle Police Department and Seattle Fire Department. Still, motorists account for a large portion of serious injuries and fatalities.

Serious crashes with motorcycles continue to be a challenge. In Seattle, nearly 70% of motorcycle fatalities occur in the SODO area on roadways like the Alaskan Way Viaduct, the Spokane Street Viaduct and Airport Way. Most crashes involve high speeds and failure to negotiate a curve. Motorcycle crashes in this area typically occur in the evenings when traffic volumes are low.

Eighty percent of pedestrian collisions occur within or near our city's urban villages. Crashes with pedestrians and bicyclists typically occur during the morning and afternoon commute hours with 56% of fatalities occurring during the evening.

Sixty percent of pedestrians killed in the last three years were age 55 or older. These people are not involved in collisions more often than others but the human body is simply less resilient as we age.



With this information in mind, SDOT embarked on an ambitious effort to dig deeper into our datasets and develop research to guide our work in a systemic and more proactive manner.

ENGINEERING

Our engineering efforts include changes to street design, policy, and city regulations. Behind each of these efforts is data that helps us better understand why certain types of crashes are occurring and how we can address them. This section discusses a number of efforts we're undertaking that will drive how we make changes to our streets:

1. **Bicycle and Pedestrian Safety Analysis** - helping us better understand our data
2. **Vision Zero Corridors** - focusing on high crash streets
3. **Speed Limits** - slowing down to save lives
4. **Focused Investments** - improving safety for people walking, biking, and riding transit

BICYCLE AND PEDESTRIAN SAFETY ANALYSIS

Eliminating fatalities and serious injuries requires a data-driven approach to make sure we're focusing on the locations and issues that need attention. To expand our understanding of the issues that contribute to collisions, SDOT embarked on the Bicycle and Pedestrian Safety Analysis (BPSA).

The BPSA is a retrospective analysis of pedestrian and bicycle collisions occurring between 2007 and 2014. The study began with an exploratory analysis of the characteristics and common patterns of crashes involving people walking or biking. We then conducted a multivariate analysis to understand the significance of the various factors. Finally, we developed a model to help identify locations with high potential for future collisions. The results will help us proactively identify locations and prioritize safety improvements.



Some key findings of the BPSA:

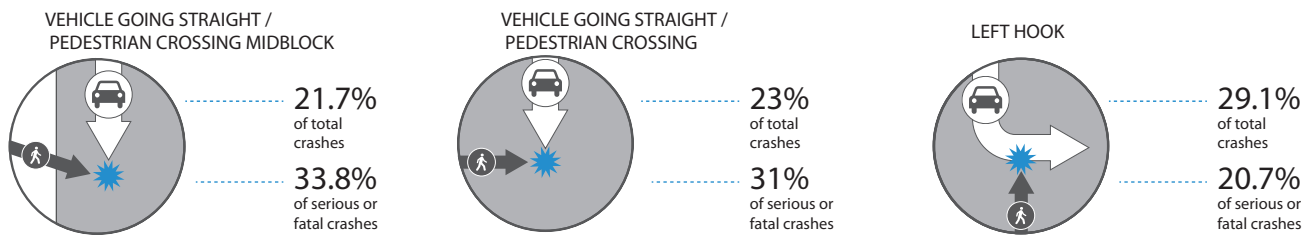
- There is a strong link between the presence of bicyclists and lower injury rates (there is safety in numbers)
- Developing infrastructure for people walking and biking improves safety for everyone, including people driving
- While more pedestrian collisions occur at signalized intersections, pedestrian crashes are more likely to be severe at locations without a traffic signal
- 66% of severe/fatal collisions involved downhill bicycles

We completed this analysis in 2016 and have started implementing recommendations from the BPSA. The BPSA will guide our work on projects big and small moving forward, including One Center City. Our research into these safety issues will continue in 2017 and beyond as we pursue data-driven strategies to reduce collisions.

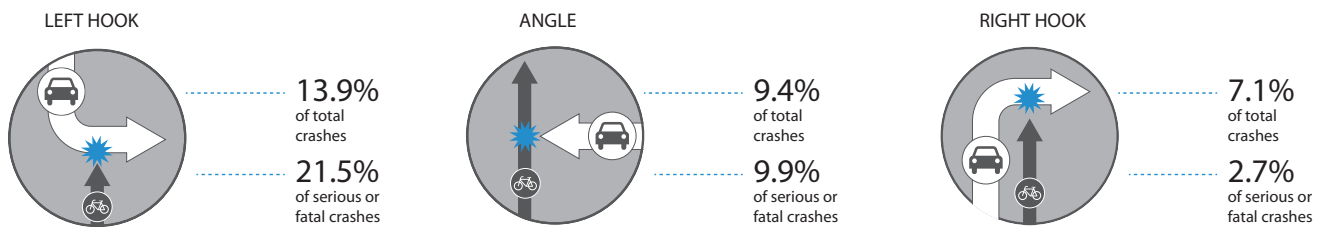
Countermeasures have been developed to address these collision patterns which will include interventions like protected left turn phases, leading pedestrian intervals, rechannelizations, turn restrictions, and changes to the built environment.

You can read the full study at www.seattle.gov/visionzero/safety-data.

BPSA – MOST COMMON PEDESTRIAN CRASH TYPES



BPSA – MOST COMMON BICYCLE CRASH TYPES



SPEED LIMITS

Speeding contributes to 20% of annual fatalities, and we know that a small speed limit reduction doubles the odds of survival for vulnerable travelers. That's why every city in King County, and major cities like New York, Los Angeles, Washington, DC, Portland, Denver, Phoenix, and Houston have made this choice and have a speed limit of 25 MPH or lower.

Reducing the speed limit works for several key reasons:

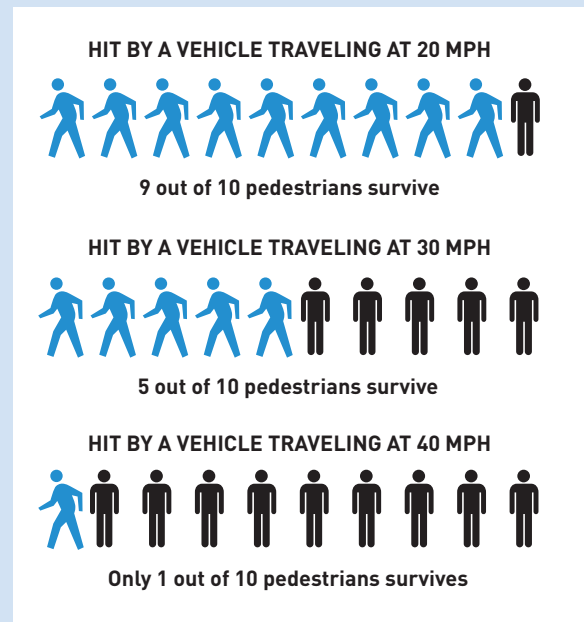
- It gives people who drive, walk, and bike more time to see each other and react
- Reducing the speed limit decreases cars' stopping distance (going from 30 to 25 MPH decreases stopping distance by 45 feet, or 23%)
- In many cases, the change will help people avoid crashes altogether. If a crash does occur, the lower speed will reduce its severity, so people have less serious injuries.

In 2016, Mayor Murray and Councilmember Tim Burgess initiated legislation to adjust speed limits on arterial and non-arterial (residential) streets in Seattle. The legislation, which Mayor Murray signed into law in October 2016, lowered the speed limit from 25 to 20 MPH on 2,400 miles of neighborhood streets. It also lowered the default arterial speed limit from 30 to 25 MPH. The default speed limit is in effect on streets where speed limits are not posted. This change immediately reduced the speed limit in the busiest parts of the city – central Seattle.

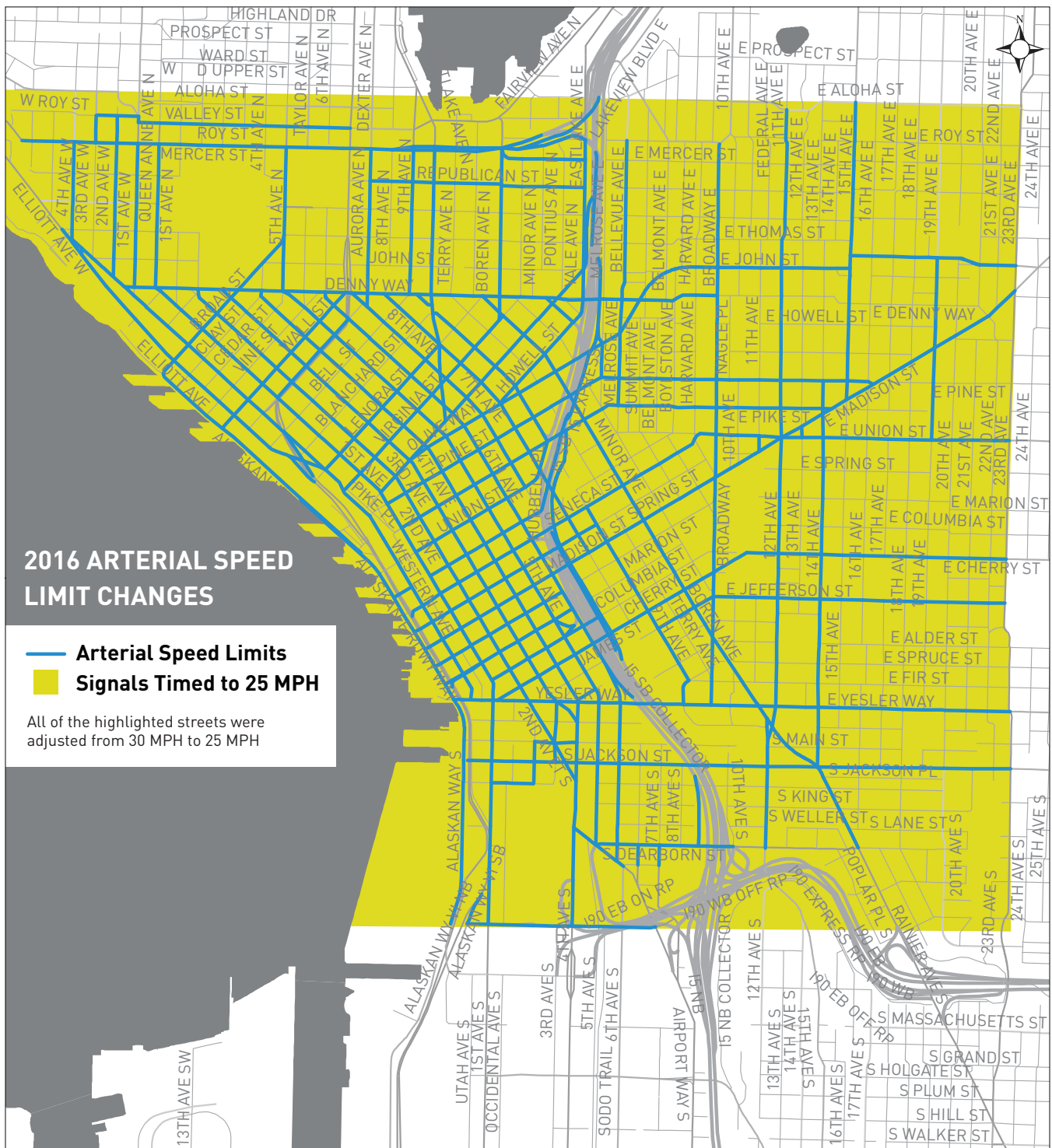


New signs posted at all entry points to the city.

Speed is *the* critical factor in the severity of collisions. People who are walking are **twice as likely to live after being hit by a car at 25 MPH than at 30 MPH.**



A new 25 MPH sign on E Union St in the Central District.



The legislation was a significant step in the right direction for street safety. Focusing on lower speed limits in the center city helps reduce collision severity where high volumes of people walking, driving, and biking lead to more opportunities for conflicts.

Moving forward, SDOT will continue to examine arterial speed limits citywide. We will evaluate 20 major corridors by 2020 and begin a review of speed limits in urban villages where we know pedestrian collisions occur most often.

VISION ZERO SPEED LIMIT EVALUATIONS

Recent Speed Limit Adjustments

- 2015
- 2016

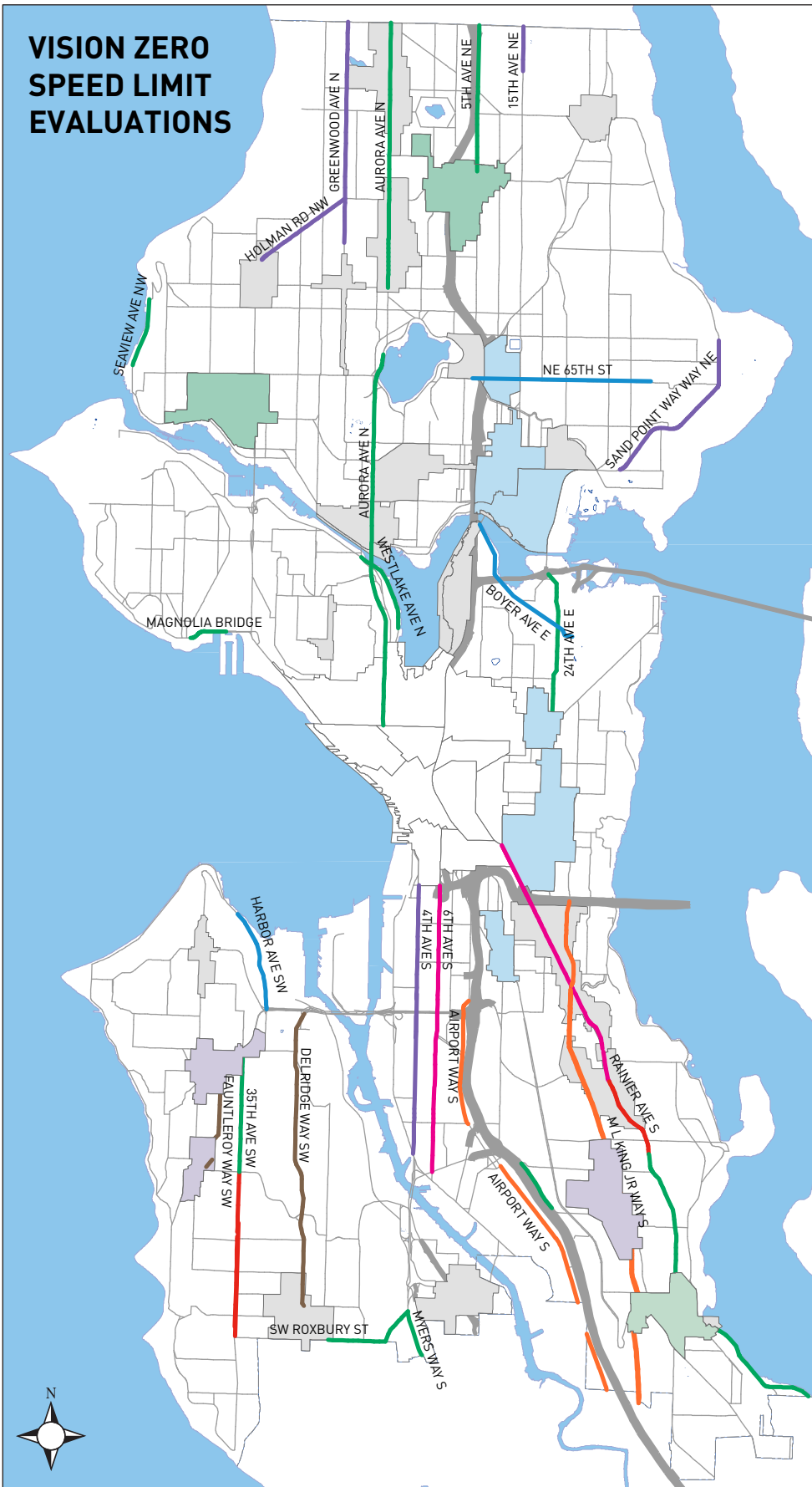
Center City Adjusted in 2016

Arterial Speed Evaluations 2016-2021

- 2017
- 2018
- 2019
- 2020
- 2021
- Future Corridors

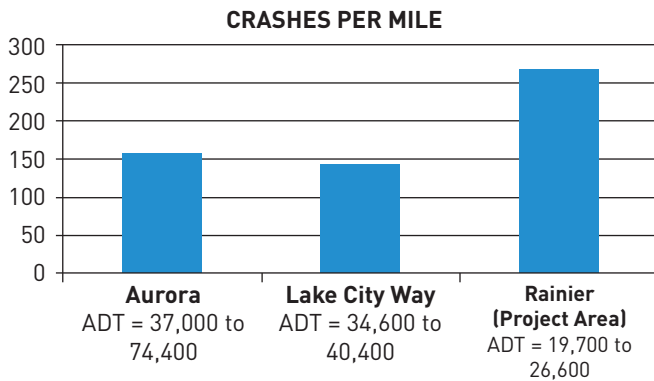
Urban Village Evaluations

- 2017 Urban Village Evals
- 2018 Urban Village Evals
- 2019 Urban Village Evals
- Future Urban Village Evals



VISION ZERO CORRIDOR PROJECTS

Over the last two years, we redesigned nearly 4 miles of principal arterial streets, including segments of Seattle’s most crash-prone roadways: Rainier Ave S, 35th Ave SW, and SW Roxbury St. Preliminary data show that there have been **zero serious collisions** since implementation. These projects have enhanced conditions for people walking, biking, driving, and riding transit.



ADT = Average Daily Traffic

Rainier Ave S

Rainier Ave S is a principal arterial street that runs an 8-mile course between center city neighborhoods and southeast Seattle. Rainier is also a former state route, decommissioned in 1992. While the neighborhoods along Rainier have grown substantially, only small adjustments have been made to the roadway. In the three-year period before we made changes, more than 1,200 total collisions occurred on Rainier, causing more than 600 injuries and two fatalities.

Crashes occurred daily on Rainier and more frequently on Rainier than on similar corridors that carry twice the traffic volume. These collisions changed lives and caused delays that took an average of 47 minutes to clear – adding to congestion.

In August 2015, Seattle moved forward with the Rainier Avenue Pilot Project – a multifaceted plan to reduce collisions on Seattle’s most crash-prone street. Centered around the Columbia City and Hillman City business districts, this context-sensitive street redesign made significant changes to a 1-mile segment of the corridor.

Street design changes included a lane reduction (going from 4 to 3 lanes), transit improvements, signal timing adjustments, a speed limit reduction (30 to 25 MPH), and pedestrian safety elements. SDOT crews and contractors completed the work in less than two weeks, and concentrated enforcement efforts began shortly after road work was complete.



Low-cost design and signal modifications, which were installed in less than two weeks, helped reduce crashes on Rainier Ave S and improve safety for all travelers.

Collisions on Rainier Avenue S between S Alaska St and S Kenny St	
Collision Type	% Change Before and After Redesign
Total Collisions	-15%
Total number of fatal and serious injury collisions	-100%

Data show that the Rainier Avenue Pilot Project improved safety by reducing most collision types, reducing vehicular speeds through neighborhood business districts, providing new pedestrian crossings, and adding transit efficiency elements.

Fewer people are driving 40 miles per hour or faster through the project area. High-end speeding is down 70 to 80% on Rainier.

Speeds at S 42nd Street			
Top End Speeders (Drivers exceeding 40 MPH)			
	Before	After	% Reduction
Northbound	4.1%	0.8%	-80.5%
Southbound	6.2%	1.7%	-72.6%

Transit Travel Times (PM Peak)		
	Prior to Redesign	Post Redesign
Northbound	19:32	16:31 (improvement)
Southbound	15:34	15:36 (no change)

Maintaining efficient transit service was a priority for this project since more than 13,000 people per day ride King County Metro's Route 7 along Rainier. Transit travel times were largely unaffected southbound and improved northbound thanks to efficiency elements like transit lanes and queue jump signals.

Lake City Way

On Lake City Way, SDOT and our partners transformed some of the most challenging environments in the city and provided the infrastructure needed for people to travel along and across the corridor in a safe and predictable manner.

Looking ahead, SDOT is working with the state on additional infrastructure projects to enhance conditions for drivers, bicyclists, and pedestrians on Lake City Way.



A wider sidewalk, median island, and shortened crossing distances improve safety for pedestrians.

35th Ave SW

On 35th Ave SW, a 1.75 mile redesign and speed limit change has reduced collisions and speeds. Left turn collisions have been virtually eliminated. The street redesign has also allowed SDOT to mark new pedestrian crossings.

While we've successfully reduced speeds on this street, it took some tinkering with signal timing and public feedback to get operations dialed in. After initial implementation, we nearly eliminated collision types like sideswipes and left turn crashes.

We did, however, see an increase in rear-end crashes, on Saturdays in particular (which is not uncommon with projects of this nature). We collected additional data and began tweaking signal timing on Saturdays. Since then, we've improved operations on 35th and rear-end crashes on the weekends are down by 72%. To date, there have been zero serious or fatal collisions since redesigning the street.

We'll release a before and after report in summer 2017 and our work on the northern segment of the corridor will begin in earnest shortly thereafter.



New crosswalk at 35th Ave SW and SW Kenyon St.

Additional Corridors

We completed a number of low-cost projects to enhance conditions on other high crash corridors like Beacon Ave S, Delridge Way SW, Fauntleroy Way SW, and Boyer Ave E.



Low cost measures reduce pedestrian crossing distances on Beacon Ave S.

HIGH CRASH CORRIDORS

SDOT recently updated our Vision Zero corridor prioritization using the newest crash data. This prioritization helps ensure we're equitably directing resources to these high crash corridors where investments are needed most. To make objective selections, roadway characteristics and collision concerns are integrated into a two stage ranking process.

The prioritization takes into account roadway characteristics like street width and traffic volumes and the five-year collision history (2012-2016) for every arterial street in Seattle. This method effectively identifies our High Crash Corridors.

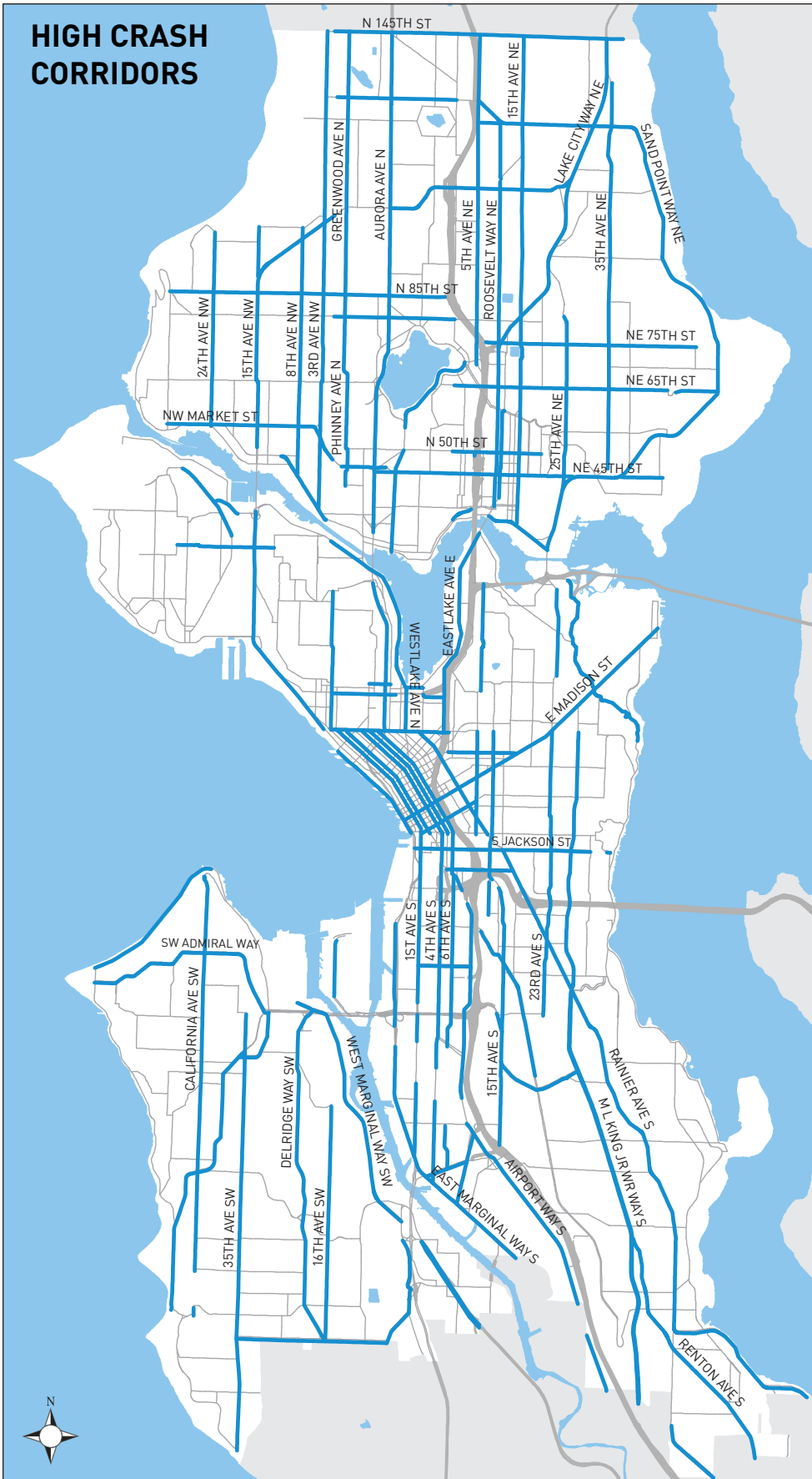
In 2017-2018, we'll be working on:

- NE 65th St
- 5th Ave (Central Business District)
- Rainier Ave S (Phase 2)
- 35th Ave SW (Phase 2)
- Banner Way/NE 75th
- 5th Ave NE
- 23rd/24th Ave E
- Aurora Ave
- SW Roxbury St

Additional corridors over the remainder of the 9-year levy (2019 - 2024) include, but aren't limited to:

- Lake City Way
- Martin Luther King Jr Way S
- 15th Ave NE
- 12th Ave
- Sand Point Way NE
- Greenwood Ave N/Holman Road
- Northgate Way
- Elliott Ave

HIGH CRASH CORRIDORS



The High Crash Corridor represents the top 100 arterial corridor segments where collisions occur too frequently. SDOT will review conditions and deploy countermeasures where feasible on each of these corridors through 2024.

MAKING IT EASIER FOR PEOPLE TO WALK, BIKE, AND RIDE TRANSIT

As we've noted, people walking and biking are the most susceptible to injury and death, making them our most vulnerable travelers. With that in mind, we delivered major safety investments in 2015 and 2016 to enhance safety for people of all ages and abilities, particularly those walking and biking.

In 2015, we improved 35 street crossings, built 11 blocks of sidewalks, and constructed 201 curb ramps. We also delivered more than 10 miles of protected bike lanes and neighborhood greenways, improving safety on busy arterials and calming residential streets.

With levy funding in 2016, we built 400 curb ramps, over 3.5 miles of protected bike lanes, and 15 blocks of new sidewalks. This is a snapshot of safety infrastructure investments we've made in the past two years, targeting safety for people walking and biking – our most vulnerable travelers.

In 2017, we're releasing an update of the Pedestrian Master Plan – our long-term action plan to make Seattle the most walkable and accessible city in the nation. The plan prioritizes where we'll build new sidewalks and walking paths and identifies intersections for potential crossing improvements, with a focus on making connections to schools and transit.



The Westlake Protected Bike Lane opened in 2016.

SDOT will complete a number of projects in 2017, including:

- Installing Leading Pedestrian Intervals at 40 locations (LPIs give pedestrians the 'walk' signal before drivers get the green light, improving visibility)
- Expanding right/left turn on red restrictions in downtown locations where turning movements and pedestrian collisions are common
- Extending the 2nd Ave protected bike lane (from Pike to Denny)
- Completing design on the Burke Gilman Trail Missing Link
- Building 4 miles of protected bike lanes, over 3 miles of trails, and over 9 miles of neighborhood greenways
- 50 blocks of new sidewalks

We're also working to create an environment where people of all ages and abilities feel comfortable riding a bicycle for any trip purpose in Seattle through our long-term Bicycle Master Plan. Working in conjunction with the Seattle Bicycle Advisory Board, Seattle has developed a 5-year bicycle facility implementation plan that will provide a better connected network of high quality infrastructure, with designs guided by the BPSA.

For more information about our Pedestrian and Bicycle master plans, visit:

- www.seattle.gov/transportation/pedMasterPlan.htm
- www.seattle.gov/transportation/bikemaster.htm

EDUCATION AND PUBLIC ENGAGEMENT

We've reached thousands of people through project specific outreach events and targeted education efforts, raising awareness of the top contributing circumstances in crashes.

OLDER ADULTS

Because a majority of pedestrian collisions involve older adults, we're focused on reaching this population. Over the past two years, we built upon previous safety education efforts via a partnership with AARP Seattle and KOMO News.

Public service announcements played on the radio, online, and television (over 230 English and 120 Spanish video spots ran on television) in the fall months, when we often see crashes increase with the darker days and wetter weather.

We also placed print and online ads in 9 ethnic media sources ranging from African American to Somali and Vietnamese. In total, the campaign yielded **over 18 million impressions in the past two years**. In 2017, we will continue this media effort and add more in-person outreach at senior centers, community centers, and senior housing complexes, to reach people where they are.

REINFORCING GOOD BEHAVIOR

To build on and acknowledge Seattle's safety record, we've also tested out a series of reinforcement patrols. This involved rewarding people for safe travel behavior, and talking to people walking, biking, and driving about Vision Zero and how we all play a role every day in achieving this shared goal. SDOT and Seattle Police Department (SPD) staff, as well as volunteers from local safe streets advocacy groups, handed out Vision Zero educational materials and small token gift cards. Looking ahead, our goal is to coordinate quarterly reinforcement patrols to continue to build awareness.

CURBING IMPAIRED DRIVING

In time for New Year's Eve in December 2015, Seattle launched an innovative partnership with Lyft and Mothers Against Drunk Driving (MADD) to deter impairment-related collisions. In early 2016, we kicked off a similar partnership with Uber, and in 2017, we'll look to expand the program with taxi companies.

Unfortunately, impaired driving remains a top cause of transportation deaths nationally and on average, around 20% of fatal crashes in Seattle involve impairment. Through these partnerships, we're able to provide additional options to people who might otherwise get behind the wheel after a night of drinking.

TIPS
TO HELP YOU GET AROUND SAFELY

- FOCUS ON THE ROAD**
Put your phone away when driving or walking.
- WATCH FOR PEDESTRIANS**
Drivers are required to stop even when there's not a marked crosswalk.
- IF YOU'VE HAD TOO MUCH TO DRINK**
Park it, cab it, take rideshare or transit.

FOR MORE TIPS
seattle.gov/visionzero

AARP Real Progress in Seattle
VISION ZERO
Seattle Department of Transportation

NHỮNG LỜI KHUYÊN ĐỂ GIÚP BẠN CÓ ĐƯỢC KHOẢNG CÁCH AN TOÀN

- NÊN TẬP TRUNG KHI TRÊN ĐƯỜNG**
Đặt điện thoại của bạn chỗ khác trong khi lái xe hoặc đi bộ.
- CẦN THẬN XEM NGƯỜI ĐI BỘ**
Những người lái xe yếu cầu phải ngừng lại mặc dù không có những vạch trắng băng qua đường.
- NẾU BẠN UỐNG RƯỢU QUÁ NHIỀU**
Đậu xe lại, gọi xe taxi, có giang xe hoặc đi xe transit.

FOR MORE TIPS
seattle.gov/visionzero

AARP Real Progress in Seattle
VISION ZERO
Seattle Department of Transportation

Our partnership with AARP enabled us to put out ads in a variety of languages (Vietnamese shown here).

CAN'T REACH IT. CAN'T USE IT.

In addition to impairment, inattentive driving continues to be a top contributing factor to crashes in Seattle. Since 2011, **collisions involving inattention have increased by nearly 300 percent**. This alarming trend is likely due to two factors: more people using their cell phone or texting while driving, and greater emphasis on this issue from law enforcement officials when investigating collisions.

In 2016, we launched a creative campaign to draw attention to this growing epidemic. With the help of a snake, baby alligator, a jar of bees, and a tarantula, we embarked on a social media and print ad campaign encouraging people to do whatever it takes to not use their phone while driving. Turns out, animals grab people's attention. Through Facebook, Twitter, Instagram, and YouTube, the campaign garnered over 1 million impressions and over 260,000 video views. We'll push this campaign out again in 2017.



One of several images used as part of our 2016 distraction campaign.

REACHING UNDERSERVED COMMUNITIES

Social media is a key outreach tool, but we also spent a fair amount of time reaching out to people in person. We recognize it takes multiple methods to reach people, and we're committed to reaching out to all of Seattle.

Throughout 2016, we were able to connect with underrepresented communities, particularly in southeast Seattle, through a grant from the [Washington Traffic Safety Commission](#). From a room full of 100 Filipino seniors, to a lunchtime presentation at the Ethiopian Community of Seattle, to an outdoor activity with kids at an affordable housing development, and through many more summer events and cultural festivals, we've been able to engage with communities who don't often interact with city government staff.

We shared safe travel tips and walked people through an interactive traffic safety course, handing out Vision Zero swag bags with safety reflectors, keychain lights, bike lights, and safe travel tips postcards that we translated into 8 languages.

This has been an effective and engaging way for us to build Vision Zero awareness, share information about newer infrastructure types (like bike boxes and green lanes), and refresh people on basic rules of the road. In 2017, we'll look to build out this program, partnering with the [Department of Neighborhoods' Community Liaisons](#).



Outreach at the Mt. Baker Village Apartments with a group of Cambodian residents.



Mayor Ed Murray with SDOT summer youth intern Ablaam Ibrahim at Dragonfest.



Talking with kids and adults about safe streets at Rainier Summer Parkways.

SAFE ROUTES TO SCHOOL

The last two years were very productive for our [Safe Routes](#) program. We completed our [5-year Action Plan](#) to guide our work, improved dozens of school walking routes for our students, and added School Zone Safety Cameras in 6 school zones.

Our Action Plan, developed with Seattle Public Schools and community partners, provides a new suite of tools to enhance the walking and biking experience including:

- Pace Car Program
- Where do I Begin? Guide
- How to Improve Arrival/Dismissal Guide
- Yard Signs
- Enhanced incentives program

Our comprehensive Safe Routes to School program continues to grow and bring new infrastructure and innovative programs to our school communities. Since 2007, we've improved infrastructure at more than three dozen schools. This program has transformed our streets and improved safety for students and residents alike.

Starting this past fall (the 2016/2017 school year), SDOT, Cascade Bicycle Club, and Seattle Public Schools are bringing **walking and biking education to every 3rd, 4th, and 5th grade class in Seattle**. In addition, we'll construct 12 engineering projects to provide the space students need to safely travel to and from school. Using a combination of strategies, we'll work to improve our infrastructure and get more kids walking and biking to school.

Through the Levy to Move Seattle, we'll be able to continue to bolster this investment, reaching 100% of Seattle Public Schools over the course of the 9-year levy. With a focus on equity, we'll complete projects within the first 3 years in walk zones at 12 elementary schools with high levels of poverty. In 2016, we completed projects near Bailey Gatzert, Northgate, and Wing Luke elementary schools.



Read the Safe Routes to School 5-year Action Plan at www.seattle.gov/transportation/saferoutes_actionplan.htm.

MORE TO COME IN 2017

The examples cited above represent a slice of our education and public engagement activities.

In 2017, we'll also be working on:

- Revamping pedestrian safety education and outreach for older adults
- Rolling out a consistent drum beat of social media posts to build broader awareness around street safety
- Reworking bicycle education
- Expanding use of our network of dynamic message signs
- Strengthening and expanding partnerships with other agencies and community based organizations



Vision Zero super heroes learning the rules of the road at a Take Your Kids to Work Day event.

ENFORCEMENT

Collaboration between SDOT and SPD has reached new levels since we launched Vision Zero in 2015. Using the City's Racial Equity Toolkit (a key component of [Seattle's Race and Social Justice Initiative](#)), we reviewed our enforcement efforts with an equity lens. Using this toolkit, in conjunction with digging into our datasets, we've gained insights into many of our safety issues and have adjusted enforcement accordingly. We've initiated daily patrols in the center city and developed citywide enforcement priorities based on SDOT's High Collision Evaluation program.

Seattle and our partners will be participating in statewide emphasis patrols coordinated by the State of Washington starting in March 2017. SPD's Traffic Section will carry these initiatives forward throughout 2017 and beyond. These high visibility enforcement efforts take place citywide and are coordinated with public service announcements in advance of the patrols. Enforcements are data-driven and focus on the top contributing circumstances in collisions including:

- Impairment
- Speeding
- Inattention
- Failure to Yield Right of Way



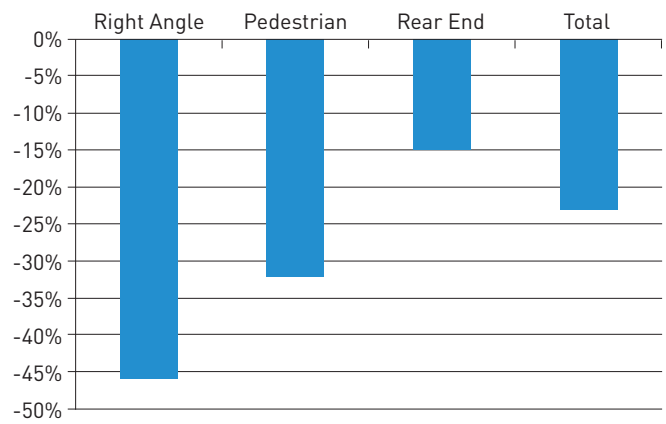
We use a combination of strategies to improve safety. SPD distributes educational pieces to all contacts during targeted enforcements.

Enforcement is a critical component of Vision Zero. People who are impaired, speeding, or inattentive on our streets are a serious threat to public health. SPD has issued more than 100,000 citations since our commitment to Vision Zero.

Seattle continues to deploy automated enforcement technology to improve compliance with traffic signals and the school zone speed limit. Locations are selected through a comprehensive data review that considers existing vehicular speeds, collisions and crash types, and the existing conditions at candidate locations. Our approach has led to crash and speed reductions where these systems have been installed.

RED LIGHT CAMERAS

Red light camera technology has been particularly effective at reducing right angle and pedestrian collisions. Collisions have been substantially reduced at the locations where we have put automated enforcement to use. Seattle currently operates red light cameras at 31 intersections and additional red light camera installations are currently under consideration at **more than 30 locations citywide.**



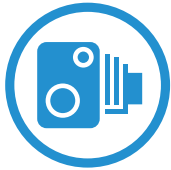
Seattle's data-driven Red Light Camera Program has successfully reduced collisions at intersections. SDOT and SPD are currently monitoring several intersection for new cameras.

SPEED ZONE SAFETY CAMERAS

SPD and SDOT continue to work together to install School Zone Safety Cameras in school zones where speeding is an issue. We now have safety cameras in 14 school zones, and data show this countermeasure successfully reduces speeds.

Compliance with the school zone speed limit has improved using this technology. Speeds have been reduced and there has been a downward trend in the number of citations issued by each camera. Twelve school zones are under consideration for new camera installations in 2018.

SINCE START OF SCHOOL SPEED ZONE SAFETY CAMERA PROGRAM



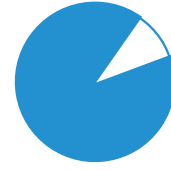
↓ 64%

The average number of traffic violations per camera *per day* has decreased by 64%



↓ 4%

Average speeds have decreased by 4%



90%

90% of people who receive a speeding citation and pay it, do not pay for another citation

COLLISIONS ARE DOWN

↓ 50%

50% drop in total collisions, pedestrian, and bicycle collisions, all times of the day

↓ 71%

71% drop in total collisions during the camera activation hours

Ø

No pedestrian/bicycle collisions in the after period during camera activation times

School Zone Cameras effectively reduce speeding and enhance safety for Seattle students.

EVALUATION

Seattle collects an immense amount of data to monitor conditions and to evaluate projects. We'll track progress toward our Vision Zero goal on our performance dashboard, Annual Traffic Report, and through individual projects.

Demonstrating the effectiveness of our work is a key piece of Vision Zero. Evaluation helps build public trust, refine our countermeasures, and guide future investments. By including public feedback, we incorporate real-world experiences and observations into our assessments and make adjustments accordingly.

We continually strive to improve our interventions and seek resources to support research. We regularly compare notes with peer cities through the national Vision Zero Network and we are currently working with researchers locally and nationally to gain additional insights into road safety.

Seattle Department of Transportation

RAINIER AVENUE SOUTH SAFETY CORRIDOR

Rainier Pilot Project Evaluation



S Alaska Street to S Kenny Street



CONCLUSION

Seattle is dedicated to ending preventable injuries and deaths on our streets. With rising national trends, and somewhat stagnant statistics here at home, we'll need to use data even more to direct resources in the most impactful and equitable way.

Through a mix of short and long-term engineering efforts, data-driven enforcement and thoughtful public outreach, we can reach our goal. As a City, we'll lead on designing safer streets, enforcing the rules of the road, and educating communities.

We need your continued partnership, as people who travel city streets every day. In our daily travels, we each make choices that could impact a life forever. Let's remember that behind each of these data points is a person.

And let's be honest, we've all likely jaywalked, rolled through a stop sign, or not stopped for someone crossing the street. Many of us have probably been in near-miss situations, or know someone who's been in a crash.

Just because these things happen every day, doesn't mean they're acceptable. We can change. Take a moment to stop for that person waiting to cross the street. Put down your phone, whether you're driving or walking. Slow down. Remember, we're all trying to get somewhere, safely.

Vision Zero is a goal we've set forth as a city because we believe it is worth achieving. We need your help to get there.



City of Seattle
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www.seattle.gov/visionzero
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Seattle
Department of
Transportation

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