CITY OF SEATTLE

ORDINANCE 125169

COUNCIL BILL 118816

AN ORDINANCE relating to arterial and non-arterial speed limits; amending Sections 11.52.060 and 11.52.080 of the Seattle Municipal Code.

WHEREAS, The City of Seattle has an aspirational Vision Zero goal of ending traffic deaths and serious injuries by 2030, and a safe city for all travelers; and

WHEREAS, every year, approximately 10,000 crashes occur on Seattle's streets, resulting in an average of 150 serious injuries and 20 deaths; and

WHEREAS, vehicle speed plays a critical role in the frequency and severity of crashes, and speed contributes to approximately 25 percent of fatalities annually; and

WHEREAS, the Seattle Department of Transportation recommends lowering the default arterial speed limit to 25 miles per hour and the default non-arterial speed limit to 20 miles per hour for the purpose of improving public health and safety; and

WHEREAS, Washington State law (via RCW 46.61.400) designates 25 miles per hour as the standard speed limit for cities; and

WHEREAS, lowering the speed limit on both arterial and non-arterial streets will improve the safety of all travelers, particularly people walking and biking; and

WHEREAS, Seattle is a growing city and residents choose to be located in compact, walkable neighborhoods; and

WHEREAS, Seattle is the only city in King County with a default arterial speed limit higher than 25 miles per hour; NOW, THEREFORE,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:
Section 1. The City Council ("Council") makes the following findings of fact and declarations:

1. The Seattle Department of Transportation ("SDOT") conducted an engineering and traffic investigation that recommended lower default speed limits on arterials and non-arterials.

2. Lowering the default arterial speed limits will primarily affect the Central Business District, South Lake Union, Lower Queen Anne, the International District and portions of Capitol Hill and First Hill west of 23rd Avenue.

3. Lowering the default non-arterial speed limits will primarily affect the City’s residential neighborhoods.

4. Seattle’s transportation infrastructure serves an increasing amount of vulnerable users such as pedestrians and bicyclists.

5. Less than 10 percent of collisions on Seattle streets involve pedestrians, bicyclists or motorcycles, yet these modes make up more than 50 percent of fatalities.

6. The injury rate for pedestrians involved in collisions is approximately 77 percent and the injury rate for bicycles involved in collisions is approximately 83 percent.

7. SDOT has tracked increasing pedestrian and bicycle counts at most locations counted through the National Bicycle and Pedestrian Documentation Project.

8. A vehicle travelling 20 percent faster along an arterial (e.g. from 25 to 30 mph) increases its kinetic energy by 44 percent, and the increased speed more than doubles the risk of injury to vulnerable persons in the roadway.

9. Data indicates that “slow zones” with a 20 mph speed limit on non-arterial residential streets results in significant safety enhancements, including a 46 percent reduction in collisions
in London and a 31 percent reduction in driver or passenger injuries as a result of collisions in
New York City.

Section 2. Section 11.52.060 of the Seattle Municipal Code, enacted by Ordinance
108200, is amended as follows:

11.52.060 Twenty ((five)) m.p.h. speed limits ((c))

Subject to Section 11.52.020, and ((E))except in those instances where a different maximum
lawful speed is provided by this ((subtitle)) Subtitle I or otherwise, no person shall operate any
vehicle at speed in excess of ((twenty-five (25))) twenty (20) miles per hour on any non-
arterial street. (((RCW 46.61.415(3))))

Section 3. Section 11.52.080 of the Seattle Municipal Code, enacted by Ordinance
108200, is amended as follows:

11.52.080 ((Thirty)) Twenty-five m.p.h. speed limits ((c))

Subject to Section 11.52.020, and except in those instances where a different maximum lawful
speed is provided by this ((subtitle)) Subtitle I or otherwise, no person shall operate any
vehicle at a speed in excess of ((thirty (30))) twenty five (25) miles per hour on arterial streets.

Section 4. SDOT will report on the status of implementing this legislation to the
Sustainability and Transportation Committee by March 31, 2017. Council anticipates that the
report will describe how arterial streets outside of the Center City will be evaluated for
implementation of reduced arterial speed limits.
Section 5. This ordinance shall take effect and be in force 30 days after its approval by the Mayor, but if not approved and returned by the Mayor within ten days after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

Passed by the City Council the 26th day of September, 2016, and signed by me in open session in authentication of its passage this 26th day of September, 2016.

[Signature]
President ________ of the City Council

Approved by me this 7th day of October, 2016.

[Signature]
Edward B. Murray, Mayor

Filed by me this 7th day of October, 2016.

[Signature]
Monica Martinez Simmons, City Clerk

(Seal)
What is happening to the speed limit in Seattle?
The City of Seattle is proposing new speed limit measures to enhance street safety – thanks to a new proposal from Mayor Ed Murray and Councilmember Tim Burgess.

Proposed changes include reducing the speed limit on all residential streets from 25 to 20 MPH and on streets in the center city from 30 to 25 MPH.

This is part of Seattle’s Vision Zero plan to end traffic deaths and serious injuries on city streets by 2030.

Why is this necessary?
While Seattle is one of the safest cities in the country, each year about 20 people are killed in traffic collisions and another 150 are seriously injured. Their lives are cut short or changed forever, impacting their families, friends, and broader communities. One life lost or altered is one life too many.

And while safety has generally improved over time, we still see our most vulnerable travelers (those walking and biking) impacted disproportionately.

People who are hit while walking or bicycling make up only 7% of crashes, but 47% of fatalities. And, 9 out of 10 bicycle/pedestrian collisions result in injury. Reducing the speed limit will help save lives and make Seattle streets safer for everyone.

HIT BY A VEHICLE TRAVELING AT:

20 MPH

9 out of 10 pedestrians survive

HIT BY A VEHICLE TRAVELING AT:

30 MPH

5 out of 10 pedestrians survive

HIT BY A VEHICLE TRAVELING AT:

40 MPH

Only 1 out of 10 pedestrians survives
Will reducing the speed by a few miles per hour really make a difference?
Yes. Speed contributes to 25% of traffic fatalities citywide, and 42% of downtown traffic fatalities every year.

Speed is a critical factor in whether you survive a car crash: People who are walking are twice as likely to live after being hit by a car at 25 MPH than at 30 MPH. This small speed limit reduction doubles the odds of survival. That’s why every other city in King County, and major cities like New York, Los Angeles, Washington, DC, Portland, Denver, and Houston have already made this choice and have a speed limit of 25 MPH or lower.

Reducing the speed limit works for several reasons: One, it gives people who drive, walk, and bike more time to see each other and react. Two, reducing the speed limit decreases cars’ stopping distance. (Reducing the speed limit 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 reduced speed will reduce its severity, so people have less serious injuries.

Won’t lowering the speed limit make traffic worse?
Not much: The average car trip in Seattle is 3.5 miles. Reducing that car’s speed from 30 to 25 MPH will add 1 minute and 15 seconds to the trip – just over a minute to save a life.

But, most of the time, drivers in 30 MPH speed zones are already going 25 MPH during peak commute times. That’s because, in the center city, signal timing has already been adjusted to 25 MPH and drivers are moving more efficiently through the city.

What’s more, travel time is primarily determined by factors like traffic signals, congestion (often caused by crashes), and obstacles like double-parked vehicles and turning vehicles. A reduced speed limit will effectively impact drivers who travel at excessive, unsafe speeds and save lives while getting Seattle where it needs to go.

On most neighborhood streets, it’s already difficult to drive faster than 20 MPH due to street widths, traffic circles, and parking. When people do speed, it is especially dangerous for our youngest and oldest residents living and playing in their neighborhoods.

Why is the City targeting drivers?
Vision Zero targets dangerous behaviors and choices – like speeding – not specific people.

Reaching Seattle’s goal of zero traffic fatalities and serious injuries by 2030 requires people who drive, walk, and bike to all be part of the solution. Reducing the speed limit gives everyone more time to see each other and avoid a crash.

Drivers benefit, too, from having better ability to stop in time to avoid a crash. No one should go through life knowing that they caused a traffic-related death or injury.

On neighborhood streets, going from 25 to 20 MPH essentially expands the existing school zone speed limit to cover all 2,400 miles of residential streets, creating safer routes for everyone in neighborhoods across the city.

Sometimes, an accident is just an accident. Why are we focusing on speed?
Most car crashes can be prevented by avoiding dangerous choices like speeding – they are not truly “accidents.” Vision Zero recognizes that humans make mistakes, but they should not be deadly or lead to a life-altering injury.

By reducing the speed limit, we can create a safer place for Seattle residents to live, work, and play at the speed of life.

What is the status of this change? When does it take effect?
Mayor Ed Murray and Councilmember Tim Burgess unveiled their safety proposal on September 6, 2016. The next steps include:
- September 20: Discussion and vote by the Seattle City Council’s Sustainability and Transportation Committee
- September 26: Discussion and vote by the full Seattle City Council
- 10 day period for Mayor Murray to sign legislation into law
- 30 day period for the law to take effect

November is the anticipated rollout timeframe for adding or altering hundreds of new signs, launching a public education campaign, and enforcement.

How will the law be enforced? What will be done to educate drivers about the lower speed limit?
If the proposal becomes law, the City of Seattle expects to use enforcement to deter violations of the speed limit. In addition, the City plans to undertake a comprehensive public education campaign to reach Seattle residents with information about the speed limit reduction before the new law would take effect.

Learn more about Vision Zero at www.seattle.gov/visionzero.
Engineering and Traffic Investigation Providing Justification for Lowering Default Arterial and Non-Arterial Speed Limits
August 2016

Overview
Seattle is committed to improving public health and safety through Vision Zero, the city’s aspirational initiative to eliminate fatalities and serious injuries on Seattle’s streets by 2030. At the core of this initiative is the belief that death and injury on city streets is preventable and acknowledging the importance of street design in mitigating the frequency and severity of collisions.

The city of Seattle is an increasingly dense urban environment with more than 1,000,000 daily motor vehicle trips, thousands of daily pedestrian and bike trips, and approximately 400,000 daily transit trips. More than 10,000 collisions occur on Seattle streets annually. Less than 10 percent of these crashes involve pedestrians, bicyclists or motorcycles yet these modes make up more than 50 percent of fatalities. Vehicular speed is often the critical factor for survival in collisions. The higher a driver’s speed, the greater risk to vulnerable road users.

While we can engineer for safer streets, Vision Zero acknowledges that human beings are fallible. In just the last three years, collisions attributed to inattention increased 280 percent in Seattle and contributed to more than 3,000 crashes in 2014 alone. With each crash, speed makes the difference between no injury, minor injury, serious injury or death.

In an effort to improve safety for everyone that uses Seattle’s transportation systems, the Seattle Department of Transportation (SDOT) proposes the following changes to the Seattle Municipal Code (SMC) regarding speed limits:

- Non-arterial speed limit reduction from 25 miles per hour (mph) to 20 mph (SMC 11.52.060)
- Default speed limit reduction for unsigned arterial streets from 30 mph to 25 mph (SMC 11.52.080)

These amendments to the SMC will be consistent with Washington State code and Federal Highway Administration (FHWA) recommendations.

Lower speed limits have been shown to be safer for our most vulnerable populations. According to a recent World Health Organization (WHO) report, legislation on road safety is a critical piece in reducing road traffic crashes, injuries and deaths1.

The following report provides the engineering justification for lower non-arterial and default speed limits.

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1 WHO “Global Status Report on Road Safety 2015”
**Background**

The primary purpose of having a speed limit is to enhance road safety for everyone. Setting an appropriate speed limit:

- **Alerts drivers about the environment ahead** – speed limits generally reflect the geometric design of the street and adjacent land uses as well as the amount of on-street parking, driveways, and pedestrian and bicycle activity
- **Enhances safety for everyone** – Setting appropriate speed limits reduces the probability and severity of crashes under favorable roadway and environment conditions
- **Provides regulatory framework** – Speed limits allow law enforcement and the municipal court system the governing context for controlling speeds

As far back as 1927 (as far as is catalogued in the Municipal archives) the city established a maximum speed limit of 25 mph on all city streets.\(^2\) For arterial highways Seattle deferred to the state of Washington, which set all arterial highway speed limits in Seattle. At this time streets and highways were just starting to develop into what we understand today – the first traffic signal in Seattle was installed in 1924 at 4\(^{th}\) Ave S and S Jackson St.

Until 1934 speed limits on arterial highways in Seattle were relegated to the state. Beginning in 1934, the city began including a handful of arterials in the traffic code with 35mph limits\(^3\). These streets included important routes such as Empire Way (now MLK Jr Way), E Marginal Way, and Westlake Ave. Between 1934 and 1948 the traffic code added and removed individual streets to this 35mph list through a series of ordinances.

In 1948 Seattle updated the traffic code to reflect the current default speed limit regulations we know today – 30 mph *default* arterial speed limit and 25 mph on all other streets, unless otherwise marked\(^4\).

Seattle’s Vision Zero Initiative, which launched in 2015, places emphasis on safety for bicyclists and pedestrians. Safety for vehicle drivers and passengers has improved substantially over the last decade but safety for vulnerable users has not experienced the same positive trend. Furthermore, the likelihood of injury is high for pedestrians or bicyclists involved in collisions. The injury rate for pedestrians involved in collisions is 77 percent and 83 percent for bicyclists involved in collisions.\(^5\)

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\(^2\) Ordinance 53233  
\(^3\) Ordinance 64692  
\(^4\) Ordinance 77299  
\(^5\) Seattle Department of Transportation 2015 Traffic Report, [http://www.seattle.gov/transportation/reports.htm](http://www.seattle.gov/transportation/reports.htm)
Seattle’s transportation infrastructure serves an increasing amount of vulnerable users like pedestrians and bicyclists. Non-motorized and trips taken by transit continue to increase and rose 7 percent and 5 percent respectively between 2012 and 2014\textsuperscript{6} in the City Center. SDOT has also tracked increasing pedestrian and bicycle counts at most locations counted through the National Bicycle and Pedestrian Documentation project.\textsuperscript{7}

While increasing non-motorized and transit trips improves the efficiency of our transportation network, studies demonstrate the negative effects of higher driving speeds. For instance, the cognitive abilities of drivers decline at higher speeds. Without factoring in behavioral issues like distracted driving, drivers becomes less aware of surroundings as speed increases and our ability to process information is limited by our field of view. An increase in travel speed increases the stopping distance of a vehicle, decreases the driver’s field of vision and results in less time for the driver to react to a person or hazard in the roadway\textsuperscript{8}.

\textsuperscript{6} “2014 Center City Commuter Mode Split Survey”, Commute Seattle (2016)
\textsuperscript{8} “Street Environment, Driving Speed and Field of Vision” by A. Bartmann, W. Spijker & M. Hess (1991)
Injuries for vulnerable road users increase in severity as vehicle speeds increase. When a person is struck at a high rate of speed, a proportion of the vehicle’s kinetic energy is transferred to the human body. Kinetic energy is determined by the square of the vehicle’s speed\(^9\), rather than by speed alone. If a vehicle were traveling 20 percent faster along an arterial (e.g. from 25 mph to 30 mph), the kinetic energy increases by 44 percent, or more than doubling the risk of injury due to the greater amount of energy the vulnerable person in the roadway has to absorb. For reference, “the human tolerance for a pedestrian struck by a well-designed car will be exceeded if the vehicle is traveling at over approximately 20 mph.\(^{10}\)

\(^9\) \(E_K = \frac{1}{2}mv^2\), where \(E_K\) = Kinetic Energy, \(m\) = mass of object, and \(v\) = speed of object

Furthermore, behavioral issues like inattention increase the likelihood of collisions and data show an alarming trend in the number of collisions attributed to driver distraction. In Seattle, inattention-related collisions increased 280 percent between 2011 and 2014. Lower speed limits will minimize injuries when these mistakes like this occur and will help improve public safety in Seattle.

The benefits of this speed limit reduction proposal are consistent with city and SDOT policies.

- **Reduce collisions that result in injuries, serious injuries and fatalities** – through Vision Zero, the city is committed to a goal of ending all serious injuries and fatalities on city streets by 2030. Speed is a contributing cause of death and serious injury on Seattle streets.
- **Reduce collisions and provide a cost savings to society** – AAA\(^{11}\) estimates that each serious collision costs taxpayers roughly $6 million, based on the FHWA comprehensive costs for serious injuries and fatalities. These costs are based on 11 components which include: property damage; lost earnings; lost household production (non-market activities occurring in the home); medical costs; emergency services; travel delay; vocational rehabilitation; workplace costs; administrative costs; legal costs; and pain and lost quality of life.
- **A safer city encourages a healthier city** – Streets that feel safer may encourage more active forms of transportation, such as walking and biking. Reducing the speed limit for vehicles will make vulnerable users more comfortable with using our transportation infrastructure, and create more opportunities for physical activity. Additionally, lower vehicle speeds mean reduced noise pollution from the road and foster more vibrant communities, such as neighborhoods lined with small businesses.
- **Safer streets encourage more non-motorized travel** – Streets that feel safer may help the city achieve mode share goals and improve the efficiency of the transportation network. Seattle currently administers programs to promote transit use, ridesharing, bicycle trips, and walking and biking to school.

\(^{11}\) “Crashes vs. Congestion – What’s the Cost to Society” (AAA, November 2011)
SUMMARY ATT A - SPEED LIMIT ADJUSTMENT JUSTIFICATION

V1

**Speed Limit Proposal**

**Non-arterial Speed Limit Reduction Justification**

Existing non-arterial speed limit: 25 mph  
Proposed non-arterial speed limit: 20 mph

To enhance safety for vulnerable users on non-arterial streets, SDOT proposes to amend SMC 11.52.060 to reduce the speed limit on non-arterial streets from 25 mph to 20 mph. This change would affect all of Seattle’s 2400 miles of non-arterial streets as shown in maps 1 and 2. Reducing the speed limit on non-arterials is consistent with Washington’s Neighborhood Safe Streets Law (2013) which authorizes municipalities to lower limits to 20 mph.

Seattle’s non-arterial streets (commonly referred to as ‘residential’ or ‘local’ streets) are designed for low speeds. The standard residential street in Seattle is 25 feet wide with 7-foot wide parking lanes on both sides of the street. This leaves one 11 foot-wide general purpose travel lane for vehicles. Two vehicles travelling in opposite directions on a standard non-arterial street must take turns navigating the street. The width of our non-arterials maintains low speeds on these roadways.

While the frequency of collisions on non-arterial streets is relatively low, nearly 3600 collisions occur on these roadways each year. Approximately 10 percent of annual serious injury and fatal collisions occur on these streets.

<table>
<thead>
<tr>
<th>Annual Collisions on Non-arterial Streets (3 year average)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Collisions</strong></td>
</tr>
<tr>
<td>3594</td>
</tr>
</tbody>
</table>

Speed limit signs are not posted on non-arterial streets unless the street passes through a special designation area such as a school zone or 20 mph zone. The non-arterial speed limit will be posted on signage at major entrances to the city as described later in this document.

**Case Study – “Slow Zones”**

Countries around Europe have started implementing “Slow Zones” which sets the speed limit at 20 mph to slow traffic down on non-arterial streets in neighborhoods. After implementing “Slow Zones”, the following safety impacts were noticed:

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• **London** – 46% reduction in collisions. Average speeds also reduced by 9 mph. In another study\(^{13}\), there was a 41.9% reduction in fatalities and serious injuries where the reduction was greatest in younger children under 15 years old.

New York City started implementing “Slow Zones” in 2011. Since then, their findings show promising trends\(^{14}\):

- 10-15% reductions in speeds
- 14% overall reduction in crashes with injuries
- 31% reduction in driver or passenger injuries

On September 8, 2015, SDOT formally announced the 20 mph zone program to improve neighborhood safety for all travelers near schools and playgrounds. This pilot program is consistent with our current city laws based on SMC 11.52.100. SDOT reduced non-arterial speed limits to 20 mph at six pilot locations in 2015 based on collision history, number of nearby pedestrian generators, geographical representation, and partnership opportunities. There are two phases to this neighborhood 20 mph zone program:

- **Phase One** – Install 20 MPH signs and 20 MPH markings on the street.
- **Phase Two** – If speeds are not reduced with signs, install other safety improvements such as curb bulbs, speed humps, and other appropriate traffic calming devices.

Speeds were reduced by a maximum of 1.6 mph and collisions dropped in five out of the six 20 MPH zones.

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Map 1 – Existing non-arterial speed limits
Map 2 – Proposed Speed Limits for Non-arterial Streets
**Default Arterial Speed Limit Reduction Justification**

Existing *default* arterial speed limit: 30 mph  
Proposed *default* arterial speed limit: 25 mph

SDOT proposes to amend SMC 11.52.080 to reduce the *default* arterial speed limit from 30 mph to 25 mph. Reducing the default arterial speed limit will make Seattle’s speed limit consistent with the Washington state speed limit of 25 mph for city streets\(^{15}\). Of the 39 cities within King County, Seattle is the only city with a default speed limit higher than 25 mph. Other major cities that have a *default* arterial speed limit of 25 mph or lower include: London, Paris, Tokyo, New York City, Phoenix and Portland, Oregon. The city of Boston reduced their default speed limit to 20 mph.

The default speed limit is in effect on streets where the speed limit is not posted or where signs are missing or illegible. Streets where the *default* arterial speed limit is currently in effect include areas of the Central Business District, South Lake Union, Lower Queen Anne, the International District and portions of Capitol Hill and First Hill west of 23\(^{rd}\) Avenue.

Current operating speeds for vehicular traffic in study area (85\(^{th}\) percentile): 22 to 25 mph

Changing the default arterial speed limit to 25 mph would be complaint with Federal Highway Safety Administration\(^{16}\) guidance for setting speed limits.

Engineering improvements have been implemented to support existing vehicle speeds. In 2015 and 2016, SDOT retimed and coordinated more than 300 signals in the areas where the default speed limit is currently in effect. Vehicular traffic speeds were determined for arterial streets. Current operating speeds range from 22 to 25 mph – below the default speed limit of 30 mph. A 25 mph design speed was used for SDOT’s signal timing and coordination project. This signal design has been in operation since January 2016. SDOT is prepared to install or replace nearly 500 signs to highlight the new speed limits upon passage of legislation. More information about signage changes can be found later in this report.

The proposed reduction to the default speed limit would become effective immediately upon acceptance of this proposal in central Seattle. The default speed limit reduction is intended to address an increase in crash severity in this area.

More than 9000 collisions occur on Seattle’s arterial streets annually. These roadways are typically wide (40 feet wide or greater) and designed to accommodate transit, freight and higher traffic volumes. The majority of arterial streets have posted speed limits of 30 mph or higher. Given higher vehicular speeds and traffic volumes for all modes on these roadways, there is greater opportunity for conflicts.

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\(^{15}\) RCW 46.61.400 “Basic rule and maximum limits”  
90 percent of serious injuries and fatal collisions occur on our arterial street network and speed has become an increasingly significant contributing factor in central Seattle. Although a small land area, this area has concentrated a collision frequency 6 times of land area percent. Speed has been involved in a greater proportion of fatal collisions over the last decade. In general, speed contributed to 4 percent of annual collisions in downtown but 42 percent of fatal crashes in downtown Seattle from 2011-2013. Collision data show that the majority of the serious, speed-related collisions occur during the evening after the heavy traffic volumes subside. Lower volumes make attaining higher speeds possible.

Please note that the data below relies on a relatively small sample size due to the fact that few traffic fatalities occur in Seattle. Because of its sample size, this data is only one of the factors supporting the City’s decision.

**Collisions and severity: Central Seattle and citywide**

<table>
<thead>
<tr>
<th>Time</th>
<th>Indicator</th>
<th>Downtown</th>
<th>City</th>
<th>% Downtown/City</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2013</td>
<td>All collisions</td>
<td>21741</td>
<td>140086</td>
<td>15.52%</td>
</tr>
<tr>
<td></td>
<td>Annual Average</td>
<td>2174.10</td>
<td>14008.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Speeding</td>
<td>783</td>
<td>7114</td>
<td>11.01%</td>
</tr>
<tr>
<td></td>
<td>% Speeding</td>
<td>3.60%</td>
<td>5.08%</td>
<td>70.92%</td>
</tr>
<tr>
<td></td>
<td>Serious + Fatal</td>
<td>310</td>
<td>2228</td>
<td>13.91%</td>
</tr>
<tr>
<td></td>
<td>Annual Average</td>
<td>31.00</td>
<td>222.80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of all collisions</td>
<td>1.43%</td>
<td>1.59%</td>
<td>89.65%</td>
</tr>
<tr>
<td></td>
<td>Speeding</td>
<td>29</td>
<td>327</td>
<td>8.87%</td>
</tr>
<tr>
<td></td>
<td>% Speeding</td>
<td>9.35%</td>
<td>14.68%</td>
<td>63.74%</td>
</tr>
<tr>
<td></td>
<td>Serious collisions</td>
<td>283</td>
<td>2009</td>
<td>14.09%</td>
</tr>
<tr>
<td></td>
<td>% of all collisions</td>
<td>1.30%</td>
<td>1.43%</td>
<td>90.77%</td>
</tr>
<tr>
<td></td>
<td>Speeding</td>
<td>23</td>
<td>262</td>
<td>8.78%</td>
</tr>
<tr>
<td></td>
<td>% Speeding</td>
<td>8.13%</td>
<td>13.04%</td>
<td>62.32%</td>
</tr>
<tr>
<td></td>
<td>Fatal collisions</td>
<td>27</td>
<td>219</td>
<td>12.33%</td>
</tr>
<tr>
<td></td>
<td>% of all collisions</td>
<td>0.12%</td>
<td>0.16%</td>
<td>79.44%</td>
</tr>
<tr>
<td></td>
<td>Speeding</td>
<td>6</td>
<td>65</td>
<td>9.23%</td>
</tr>
<tr>
<td></td>
<td>% Speeding</td>
<td>22.22%</td>
<td>29.68%</td>
<td>74.87%</td>
</tr>
<tr>
<td>2011-2013</td>
<td>All collisions</td>
<td>5787</td>
<td>38227</td>
<td>15.14%</td>
</tr>
<tr>
<td>Annual Average</td>
<td>1929.00</td>
<td>12742.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speeding</td>
<td>193</td>
<td>1501</td>
<td></td>
<td>12.86%</td>
</tr>
<tr>
<td>% Speeding</td>
<td>3.34%</td>
<td>3.93%</td>
<td></td>
<td>84.94%</td>
</tr>
<tr>
<td>Serious + Fatal</td>
<td>85</td>
<td>524</td>
<td></td>
<td>16.22%</td>
</tr>
<tr>
<td>Annual Average</td>
<td>28.33</td>
<td>174.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of all collisions</td>
<td>1.47%</td>
<td>1.37%</td>
<td></td>
<td>107.15%</td>
</tr>
<tr>
<td>Speeding</td>
<td>10</td>
<td>63</td>
<td></td>
<td>15.87%</td>
</tr>
<tr>
<td>% Speeding</td>
<td>11.76%</td>
<td>12.02%</td>
<td></td>
<td>97.85%</td>
</tr>
<tr>
<td>Serious collisions</td>
<td>78</td>
<td>472</td>
<td></td>
<td>16.53%</td>
</tr>
<tr>
<td>% of all collisions</td>
<td>1.35%</td>
<td>1.23%</td>
<td></td>
<td>109.16%</td>
</tr>
<tr>
<td>Speeding</td>
<td>7</td>
<td>48</td>
<td></td>
<td>14.58%</td>
</tr>
<tr>
<td>% Speeding</td>
<td>8.97%</td>
<td>10.17%</td>
<td></td>
<td>88.25%</td>
</tr>
<tr>
<td>Fatal collisions</td>
<td>7</td>
<td>52</td>
<td></td>
<td>13.46%</td>
</tr>
<tr>
<td>% of all collisions</td>
<td>0.12%</td>
<td>0.14%</td>
<td></td>
<td>88.92%</td>
</tr>
<tr>
<td>Speeding</td>
<td>3</td>
<td>15</td>
<td></td>
<td>20.00%</td>
</tr>
<tr>
<td>% Speeding</td>
<td>42.86%</td>
<td>28.85%</td>
<td></td>
<td>148.57%</td>
</tr>
</tbody>
</table>
Changing the default arterial speed limit will impact the Central Business District, South Lake Union, Lower Queen Anne, the International District and portions of Capitol Hill and First Hill west of 23rd Avenue. See the maps below to view existing arterial speed limits and the specific areas where the default speed limit will take effect with this proposed change to the Seattle Municipal Code.

Map 3 – Existing Arterial Speed Limits
Map 4 – Proposed Default Arterial Speed Limit Changes
Case Study - New York City

Since 1965, New York City has had a speed limit of 30 mph. On November 7, 2014, New York lowered their default speed limit from 30 mph to 25 mph in an effort to reduce serious injuries and fatalities. The default arterial speed limit is in effect on 90 percent of arterial streets. The remaining 10 percent of arterials continue to have higher posted speed limits while the New York City Department of Transportation (NYCDOT) reviewed select arterials for speed limit reductions. While New York’s speed limit changes have been in place for less than two years, collision data show that this change has contributed to promising safety trends. Most importantly, the total number of pedestrian injury collisions substantially dropped for four of the five boroughs following the speed limit reduction.

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Arterial Speed Limits

This proposal does not suggest altering the process for adjusting speed limits on arterial streets where the speed limit signs are posted. Posted speed limits adjustments typically occur after geometric design changes are implemented and only after engineering studies validate adjustment in accordance with national guidelines for setting speed limits\(^{19}\). Adjustments to the posted speed limit require approval from the City Traffic Engineer.

The Seattle Department of Transportation currently maintains a multi-year program to review posted speed limits on arterial streets. Review of posted speed limit will occur as budget and other demands on the department will allow. Changes to posted speed limits will be recommended if the City’s review, including engineering studies, support such changes.

Conclusion

The Seattle Department of Transportation and the City Traffic Engineer propose to amend the Seattle Municipal Code to reduce the speed limit on non-arterial streets from 25 mph to 20 mph. SDOT and the City Traffic Engineer also propose to reduce the default arterial speed limit from 30 mph to 25 mph given that:

- Existing vehicular speeds in the areas impacted by this change are within accepted guidance set by the FHWA for setting speed limits
- There has been an increase in speed-related fatal collisions in central Seattle
- Higher vehicular speeds increase collision severity
- Engineering improvements have been made in the areas impacted by this change to support the 25 mph speed limit
- Additional signage improvements will be installed to inform drivers of the speed limits
- Additional arterial speed limit adjustments will be considered through SDOT’s annual programs and adjustments will be made in accordance with national guidelines for setting speed limits

Implementation methodology

Seattle’s speed limits have not substantially changed in decades. SDOT will coordinate a multifaceted approach to help educate residents and visitors about lower the speed limits. Effectively lowering the speed limits will be accomplished through the following:

- **Education** – Installing new signs throughout the city to remind residents and visitors of the new default arterial speed limits
- **Engineering** – Signal adjustments will reinforce the new default arterial speed limits
- **Enforcement** – SDOT and the Seattle Police Department (SPD) coordinate on a monthly basis to deploy SPD to areas where we need to target driver behavior that puts those around them at risk

• **Evaluation** – Seattle evaluates the health of their transportation system on an annual basis through the public facing Annual Traffic Report. We will continue to evaluate the effectiveness of our policies and approaches through this report.

**Engineering**

Seattle’s arterial street network outside of the downtown core is lined with speed limit signs at regular intervals. Seattle currently posts speed limit signage at major and minor arterial entrances to the city. Variability in speed limit sign placement is due to site conditions along each roadway.

In order to educate people about the new speed limits, SDOT will install 75 to 100 new signs. “Gateway signs” will be placed at 40 locations citywide and provide the default arterial speed limit as well as the non-arterial speed limit. These new signs will be posted where people enter Seattle including near the city limits and near highway off-ramps where visitors may be visiting from outside of Seattle:

<table>
<thead>
<tr>
<th>SEATTLE SPEED LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIAL 25</td>
</tr>
<tr>
<td>NON-ARTERIAL 20</td>
</tr>
<tr>
<td>UNLESS OTHERWISE POSTED</td>
</tr>
</tbody>
</table>

Smaller signs with speed limits will be posted on minor arterial entries to Seattle. There are currently 38 existing signs posted citywide that SDOT will remove and replace.
SDOT will continue to ensure that speed limit signs are posted regularly on arterials outside of downtown through annual maintenance programs.

Through the Seattle Department of Transportation’s (SDOT) Neighborhood Traffic Program, more than 400 advisory 20 mph speed limit signs have been installed on non-arterial streets. With the lower non-arterial speed limit, the advisory speed limit signs will be removed to remain in compliance with the Manual on Uniform Traffic Control Devices (MUTCD).

Existing 20 mph advisory speed limit signs will be removed

**Enforcement**

The Seattle Police Department (SPD) is committed to the city’s Vision Zero goal. SDOT and SPD meet regularly to discuss trends and enforcement priorities. Speeding is a top citation issued by SPD annually and Seattle will continue to use enforcement to reinforce the posted speed limit.

Enforcement priorities are determined by speed and collision data. SDOT and SPD work to ensure that enforcements occur throughout the city but target the areas where speeding has contributed to collisions more often. Common locations for speed limit enforcements include arterial corridors, locations identified through SDOT’s High Collision Evaluation Program and school zones. Priority enforcement locations for 2016 are shown in the map below:
**Education**

In addition to the new signage noted above, the city will conduct a comprehensive public outreach campaign to educate drivers about the speed limit changes. Outreach methods will include earned media, newspaper and radio ads, social media messages and online resources.

**Implications**

Lowering speed limits may foster a public perception of decreased mobility for increased safety on our arterial street network. However, the actual impact to vehicular travel times are minimal considering the safety benefits of lower speeds. The average trip by car is 3.5 miles. Reducing the speed limit from 30 mph to 25 mph would add 1.4 minutes to the average trip.

<table>
<thead>
<tr>
<th>Speed (mph)</th>
<th>Time to Travel One Mile (mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>2.4</td>
</tr>
<tr>
<td>30</td>
<td>2.0</td>
</tr>
<tr>
<td>35</td>
<td>1.71</td>
</tr>
<tr>
<td>40</td>
<td>1.5</td>
</tr>
</tbody>
</table>

There will be a transition period as more drivers within Seattle become accustomed to the lower speed limit; however, education campaign and targeted police enforcement to help change the driver behavior and reinforce the speed limits.

Safer neighborhoods results in benefits to the quality of life for everyone. Road safety improves the transportation system, which impacts people's reach for opportunities in jobs, education, and a better life. For businesses and communities, reducing speeds may reduce road noise which can promote public health and growth for economic centers. Seattle has also established the Housing Affordability and Livability Agenda (HALA) initiative to keep Seattle affordable and not displace families.