

## Rainier Ave S Vision Zero & Lake Washington Blvd Keep Moving Street Data Analysis

Updated 3/24/2021

This summary shares information on safety measures implemented on Rainier Ave S to reduce fatal and serious injury crashes, as well as operational changes made to Lake Washington Blvd during the COVID-19 emergency response. The Appendices contain data collected to understand related changes to travel patterns.



The City of Seattle has a Vision Zero goal to end traffic-related serious injuries and fatalities by 2030. Rainier Ave S is one of Seattle's top streets for injuries and fatalities so it's a top priority for achieving that goal. To that end, in 2015 and again in 2020, we redesigned sections of Rainier Ave S to reduce the number of travel lanes in each direction from 2 to 1. In 2019 and 2020, we also extended the speed limit reduction on Rainier Ave S to 25 miles per hour.

### WHY REDUCE THE NUMBER OF TRAVEL LANES?

Reducing the number of travel lanes has been proven to reduce speeding – a key factor in the frequency and severity of crashes. The World Health Organization concluded that a 5% reduction in average speed can decrease traffic fatalities by 30%.

### WHY REDUCE THE SPEED LIMIT?

Lowering speed limits has a negligible impact on how long it takes people to reach their destination and can actually reduce traffic congestion. It only takes 20-40 seconds longer to drive a mile at 25 MPH than at the previous speed limit. Meanwhile, about a quarter of the time we spend sitting in traffic is due to crashes which can often be prevented with lower speed limits.

A [recent study](#) we conducted provided evidence that installing speed limit signs prevents crashes and reduces speeds, even without additional enforcement or physical changes to the street. We saw a 22% reduction in crashes and a 54% reduction in the most dangerous speeders. Our local success in lowering speeds helped inform the NACTO (National Association of City Transportation Officials) new 2020 speed limit recommendations for setting speed limits nationwide.

## HOW'D IT TURN OUT?

Collisions, speeds, and traffic volumes are the 3 cardinal pieces of data traffic engineers and planners use to evaluate changes to Seattle streets.

Reported collisions and driver speeds:

**Phase 1 (2015 redesign from Columbia City to Hillman City):** This project successfully reduced driver speeds and improved safety along Rainier Ave S in Columbia City and Hillman City. ([Read the full 2016 evaluation report.](#))

Updated data analysis since the 2016 report shows that **total collisions have decreased by 24%** and injury/fatal collisions decreased by 16%. There's still work to do to reduce serious injuries and fatalities to zero.

**Phase 2 (2019/2020 redesign from Hillman City to Rainier Beach):** After reviewing community feedback, working with our partners at King County Metro, and conducting traffic modeling, we continued the changes south and built improvements at [every major intersection](#) in 2019 and 2020. In September 2020, we reduced the number of general-purpose travel lanes from 2 to 1 in each direction. **After a full year of counts and collision data, we'll compile a 1-year-evaluation of Phase 2.**

Traffic volumes:

We've posted traffic counters along Rainier Ave S as well as on side streets to track traffic volumes and determine if and where people driving are diverting to.

**After 1 year, we found a significant drop in vehicle traffic on Rainier Ave S** after the 2015 lane changes with much of the traffic diverting to MLK Way S – which is built to handle higher vehicle volume. [Read the full 2016 evaluation report.](#)

**Updated data analysis since the 2016 report shows that vehicle volumes on Rainier Ave S have crept back up to similar levels as before the 2015 changes.** This is consistent with higher vehicle volumes we've seen across the city as more people are traveling in and through Seattle to live and work in the city. There's been some increase to vehicle counts on Seward Park Ave S, Lake Washington Blvd, Renton Ave S, and 51st Ave S which are consistent with increases across the city. [View our annual Traffic Reports showing volumes across the city](#) and view the raw numbers for the Rainier Ave S and nearby street counters within **Appendix A.**



In response to the COVID-19 pandemic and restrictions to people biking in Seward Park, after a June pilot, we partnered with Seattle Parks and Recreation to open Lake Washington Blvd to people walking, rolling, and biking at a safe distance from July to October 2020 and periodically ever since during major holidays and Seattle Public School breaks, with the next one planned for April 2021.

### HOW'D IT TURN OUT?

We tracked increases in people walking and biking on Lake Washington Blvd, public response, and traffic diversion to determine the success of the project.

Increases in people walking and biking and public response:

SDOT staff visited the Lake Washington Blvd Keep Moving Street during the closure to count people walking/biking/rolling and monitor for impacts. **Of all the streets across Seattle closed to pass through traffic to support social distancing, the Lake Washington Blvd Keep Moving Street was one of the most used with an average of 50 people per mile.**

We asked for feedback on the closure pilot via the StayHealthyStreets@seattle.gov email inbox. The inbox received over 600 responses as of June 9, 2020. **Of these, 421 favored the closure, 177 were opposed, and 46 were neither explicitly in favor nor opposed.** ([View the full summary of the pilot results.](#)) We continue to virtually meet with neighborhood groups and interested community members to discuss possible next steps and necessary outreach.

Traffic diversion:

One of the community's primary concerns with a longer-term closure of Lake Washington Blvd is the effect of displaced vehicle trips onto other streets in the neighborhood. We placed traffic counters at 3 arterial streets that would likely see diverted traffic from drivers who would otherwise use Lake Washington Blvd.

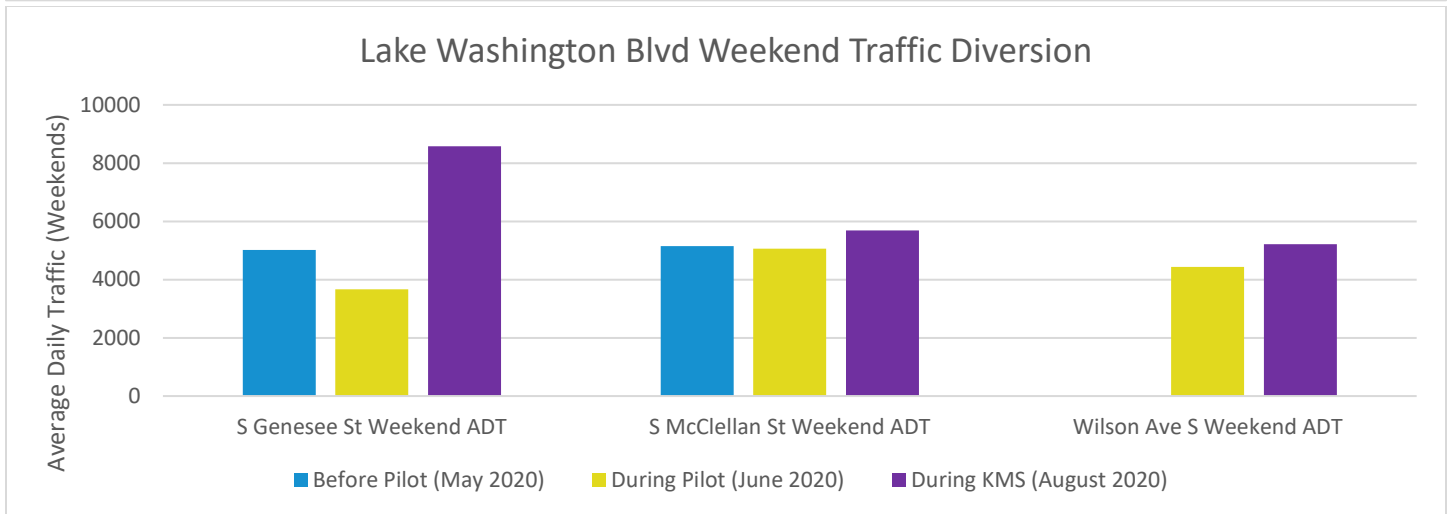
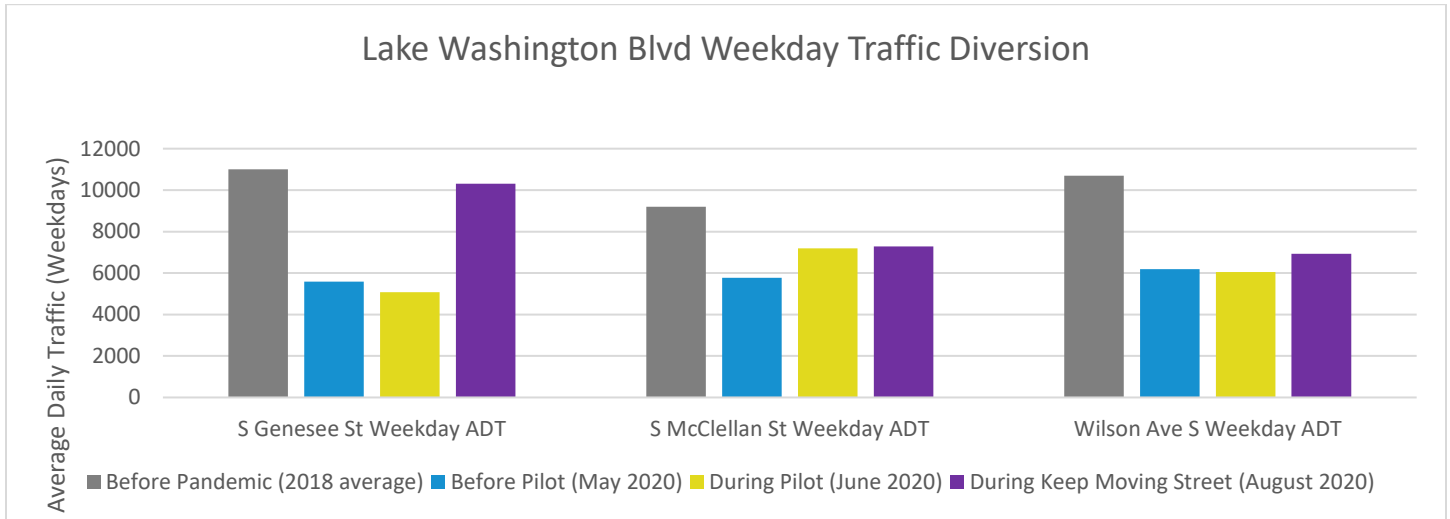
**With the exception of weekend days along Genesee, vehicle volumes on these arterial streets remained about the same or lower than traffic levels pre-pandemic.** [View the full summary of the pilot results](#) and counts within **Appendix B**.

**APPENDIX AL BEFORE AND AFTER PHASE 1 RAINIER AVE S SAFETY CHANGES**

**AVERAGE NUMBER OF WEEKDAY VEHICLES**

	<b>2014</b>	<b>Oct 2019</b>	<b>% vehicle volume change from 2014 to 2019</b>
	<b>Pre-redesign (Phase 1)</b>	<b>Interim redesign (Phase 2)</b>	
<b>RAINIER AVE S</b>			
<b>Rainier (at Alaska)</b>	21,600	22,435	+4%
<b>Rainier (at Kenny)</b>	21,600	19,310	-11%
<b>Rainier (at Othello)</b>	22,700	20,740	-9%
<b>NEARBY STREETS</b>			
<b>MLK (at Andover)</b>	21,925	19,571	-11%
<b>Lake Wash Blvd (at Horton)</b>	7,929	9,476	+20%
<b>Seward Park Ave S (at Kenyon)</b>	9,486	10,923	+15%
<b>Genesee (at 38th Ave S)</b>	11,597	9,669	-17%
<b>51st Ave S (at Rainier)</b>	9,782	11,494	+18%
<b>Renton Ave S (at Kenyon)</b>	7,612	7,806	+3%
<b>Renton Ave S (at Henderson)</b>	7,248	8,581	+18%

**APPENDIX B: 2020 LAKE WASHINGTON BLVD KEEP MOVING STREET ANALYSIS**



*Note: The traffic counter at Wilson Ave S malfunctioned during pre-pilot weekend data collection.*

These counters were located at:

- [S Genesee St, east of 38<sup>th</sup> Ave S](#)
- [S McClellan St, east of 31<sup>st</sup> Ave S](#)
- [Wilson Ave S, northwest of S Lucille St](#)

We repeated the counts 3 times:

- May 2020 before a Keep Moving Street was installed to understand baseline traffic patterns during the pandemic
- June 2020 during the extended weekend pilot in late June to measure traffic diversion
- August 2020 to see if diversion had increased during the longer-term Keep Moving Street between July and August