

# Glisan Street Lane Reconfiguration | Project Report

BEFORE: Glisan Street @ 78th



AFTER: Glisan Street @ 78th



## Glisan Street Lane Reconfiguration

In August 2013, the Portland Bureau of Transportation (PBOT) reconfigured the lanes on NE Glisan St, 60th to 82nd avenues. PBOT and community leaders worked together to design and implement this significant safety improvement in response to a community member who was struck and killed trying to cross NE Glisan at 78th in January 2013.

The project includes the following improvements:

- Restriping of two travel lanes in each direction to one travel lane in each direction with a center turn lane and full time parking (2013).
- Marked crosswalks with rapid flash beacons, pedestrian islands at 78th (2013) and between 65th and 66th (2014), and signage.

Crashes have decreased by over 10% and speeding has decreased 58%, yet there has been little change in travel time over the 22 blocks.

Goals	Project Outcomes
<b>PEDESTRIANS:</b> Improve pedestrian safety	Add two marked crosswalks w/ rapid flash beacons and pedestrian islands Reduce number of travel lanes pedestrians have to cross
<b>CRASHES:</b> Reduce the number of crashes (all modes)	14% reduction in all crashes in the first year. 17% reduction in fatal and serious injury crashes in the first year. (updated numbers at end)
<b>SPEEDING:</b> Reduce auto speeds (35 MPH posted speed)	58% reduction in speeding
<b>FLOW:</b> Maintain traffic flow	Transit travel time relatively unchanged

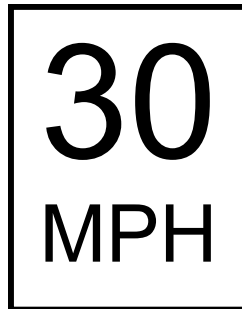
## Speed

The Glisan Street Lane Reconfiguration project has reduced speeding on the project segment of NE Glisan St. As a result, the Portland Bureau of Transportation received approval in October 2014 to reduce the posted speed from 35 MPH to 30 MPH. Speed data was collected before and after project construction at NE 78th Avenue.

Previous  
Posted Speed



Current  
Posted Speed



### 85th Percentile Speed

*85th percentile speed is the speed at which 85% of vehicles are traveling at or below, and it is considered the route's operating speed.*

	Before	After	Change (%)
Westbound	35 MPH	32 MPH	- 8.6
Eastbound	35 MPH	33 MPH	- 5.7

### Speeders

*Percent driving over 35 MPH.*

	Before (%)	After (%)	Change (%)
Westbound	17.4	5	- 71.3
Eastbound	15.6	8.5	- 45.5

### Top End Speeders

*Percent driving 45 MPH or more.*

	Before (%)	After (%)	Change (%)
Westbound	0.4	0	- 100
Eastbound	0.3	0.2	- 33.3

## Crashes

From 2003 to 2012, there were 327 crashes on NE Glisan St between 61st and 81st Avenues. Six of those crashes were either fatal or serious injury crashes.

Nationally, lane reconfigurations achieve about 30% crash reduction. This project has seen about a 14% reduction in crashes. There were 7 pedestrian crashes 2003-2012 and 2 pedestrian crashes in 2014. We will continue to collect after data and monitor pedestrian crashes.

*\*2-Year Post-Project indicates the annual average of crashes that occurred during the two years following project implementation.*

Number of Annual Crashes				
<i>Number of motor vehicle, bicyclist and pedestrian crashes.</i>				
	Annual Average	1-Year Post-Project	2-Year Post-Project*	Percent Change
	<i>1/1/03 - 12/31/12</i>	<i>1/1/14- 12/31/14</i>	<i>1/1/14- 12/31/15</i>	
All modes	32.7	28	N/A	- 14.4%
Fatal & Injury A	0.6	1	.5	- 16.7%

## Glisan Volume and Alternate Routes

One concern voiced by neighbors during this process was that motor vehicle drivers on NE Glisan would seek alternate routes on neighborhood streets to avoid possible congestion. Average weekday volumes have remained constant on NE Glisan.

NE Davis was identified as the likely alternate neighborhood route. Traffic volumes have dropped somewhat on NE Davis, indicating there has not been diversion onto this alternate route, and speeds were relatively unchanged.

Glisan Traffic Volume			
<i>Number of motor vehicles traveling on NE Glisan St</i>			
	Before <i>2/2013</i>	After <i>1/2014</i>	Change (%)
AM Peak	779	762	- 2.2
PM Peak	814	739	- 9.2
Ave Weekday	16,619	16,437	- 1.1

Davis Traffic Volume			
<i>Average of volumes and speeds taken east of 66th.</i>			
	Before	After	Change (%)
Volume	642	595	- 7.3
Speeds	25	25.5	+ 2.0

### Travel Time

Preliminary data shows that the time required to drive between NE 60th and NE 82nd avenues changed little after the lane re-configuration project was constructed. Westbound travel times increased about 5% and eastbound travel times remained about the same most of the day, with a 6% increase in the PM peak. This data is derived from bus travel times collected by TriMet.

### Transit Travel Time (median)

*Preliminary data TriMet bus travel times, NE 60th to NE 82nd.*

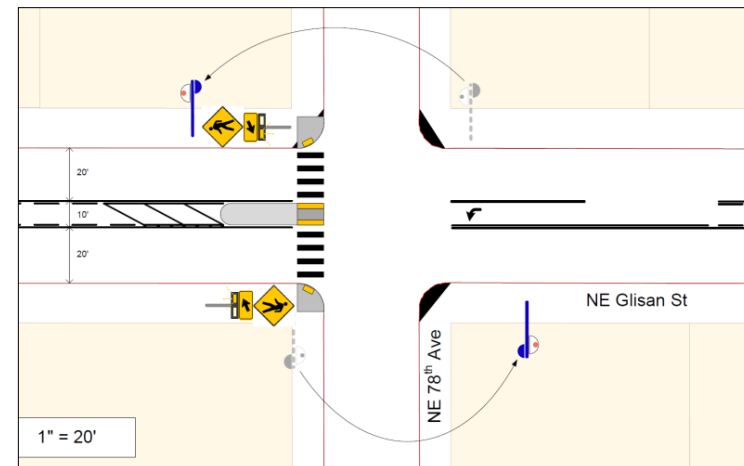
	Before 8/1/12-7/31/13	After 10/1/13-11/15/13	Time Change
<b>Westbound</b>			
AM Peak	4:34	4:47	+ 0:13
Mid Day	4:16	4:31	+ 0:15
PM Peak	4:21	4:25	+ 0:04
<b>Eastbound</b>			
AM Peak	3:40	3:33	- 0:07
Mid Day	4:26	4:27	+ 0:01
PM Peak	6:34	6:50	+ 0:16

### Conclusion

The Glisan Street Lane Reconfiguration reduced the total number of crashes by about 14% percent in the first year, with a similar reduction in fatal and serious injury crashes. The project has achieved about a 58% reduction in speeding and has resulted in reducing the posted speed from 35 MPH to 30 MPH. The amount of traffic measured on NE Glisan has remained about the same, and preliminary data shows that transit travel times have changed very little.

Two enhanced pedestrian crossings, including rapid flash beacons and pedestrian median islands, were installed at 65th and at 78th Avenues. Sidewalks are more comfortable to walk along because they are now buffered by permanent parking (in most places) and traffic speeds are slower. In addition, crossing NE Glisan as a pedestrian is easier as there is only one travel lane in each direction to cross and the double threat is eliminated. Drivers no longer have to “punch and pray” turning left onto Glisan from side streets and have a designated space to wait for a gap when turning left off of Glisan.

The City will continue to monitor this project and update this report as additional data is available.



## Updated Crash Analysis

PBOT crews constructed the Glisan Street Lane Reconfiguration project in 2013. This updated crash analysis (2023) includes pre-project data from 7/1/08-6/30/13 and post-project data from 2014-2018. PBOT staff included the first half of 2013 in pre-project data because the project was built partially in response to a fatal pedestrian crash that happened in January 2013.

The data shows a decrease in crashes of all severities, but an increase in pedestrian crashes and in fatal and serious injury crashes. To better evaluate the effects of this project on crashes, staff compared the percentage change of different crash types with the change citywide and in a 1-mile radius around the project area (a square that included Cesar E Chavez Boulevard, 102nd Avenue, NE Knott Street, and SE Hawthorne Boulevard). Fatal and serious injury crashes on Glisan increased less than in the comparison areas, but pedestrian crashes still increased significantly more.

The pedestrian crashes reveal the limitation of the project and work that remains. Three of the crashes happened when drivers turning onto Glisan hit pedestrians moving along Glisan, a crash type this project did not address. Three of the crashes happened when pedestrians were crossing Glisan at unmarked crossings. While this type of reconfiguration typically makes these crossings safer, the crashes highlight the need to close crossing gaps. Two of the crashes happened when a driver turned left onto Glisan at the signal at NE 67th Avenue. In 2019 PBOT installed [left turn calming](#) at this intersection to address these crashes.

For better statistical accuracy, PBOT strives to do crash analysis that includes five years of post-project data, which is only available about seven years after the project is complete. To address this delay, PBOT engineers released the initial project report shortly after construction and updated with two years of crash data. For consistency, staff did not change the preliminary crash data in this report and added this updated crash analysis.

*Updated Crash Analysis 2023*

Crashes on NE Glisan St					
<i>Number of crashes on NE Glisan Street between 61st and 81st Avenues</i>					
	Before 7/1/08-6/30/13	After 2014-2018	Change	Citywide and 1-mile average change	Relative change
Fatal and Serious Injury Crashes	3	4	33%	44%	-7%
Pedestrian Crashes	5	8	60%	23%	30%
Bicycle Crashes	2	2	0%	-13%	15%
Vision Zero Focus Crashes*	9	12	33%	12%	19%
All Crashes	172	151	-12%	13%	-22%

*\*Vision Zero focus crashes are all crashes that involved a person dying, a person suffering a serious injury, a person biking, and/or a pedestrian.*