

The Seattle Department of Transportation

# **NE 75TH STREET REDESIGN**

Before and After Study: 15th Ave NE to 35th Ave NE



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### PROJECT OVERVIEW

On April 1, 2013, a community walk was held to memorialize the lives affected by a collision between an intoxicated driver and a family of four. The City announced a commitment to work with the community to review conditions on NE 75th Street.

Between April and May 2013, the Seattle Department of Transportation (SDOT) held three public meetings to review existing conditions and traffic data, discuss an engineering toolbox of potential improvements, and hear concerns and ideas from residents. More than 100 people attended the meetings and SDOT received many letters and emails on the subject. Comments from the meetings were strongly in support of providing more organizational structure to the roadway by redesigning the roadway. SDOT evaluated these comments and developed alternatives based on community input and data.

On July 17, 2013, the City announced four proposals for the NE 75th Street corridor between 15th Avenue NF and 35th Avenue NF. The proposed roadway modifications were intended to reduce speeds and improve safety for students,

neighbors, and all who travel the corridor. In all, more than 180 people attended the five public meetings held for this project and SDOT received more than 300 correspondences.

In August 2013, SDOT redesigned the street, with a goal of improving safety for all travelers.

This report describes the approach to this project, outreach, early improvements made prior to rechannelization, rechannelization improvements, and the before and after results.

#### **Summary of Improvements**

- Roadway redesign:
  - Before one general purpose lane in each direction with peak hour parking restrictions providing one additional travel lane during the morning and evening commutes
  - After 5 foot bike lane, 10.5 foot travel lane. 9 foot center turn lane. 10.5 foot travel lane, 5 foot bike lane
- Eliminated 140 parking spaces on NF 75th Street
- New marked crosswalk at 28th Avenue NE





Before and After Photos (NE 75th Street between Ravenna Avenue NE and 23rd Avenue NE).

### STUDY BACKGROUND

NE 75th Street provides access to Interstate 5 and is used as an east-west route over the interstate. Several transit routes serve the corridor. The existing street design provides one general purpose lane in each direction with parking allowed on both sides of the street. Parking is peak-hour restricted on the north side of the street during the morning peak commute and on the south side during the evening peak hour commute. Adjacent land uses include single family residential with some multifamily housing, commercial uses at 25th Avenue NE and 35th Avenue NE. and a school.

#### **PARKING**

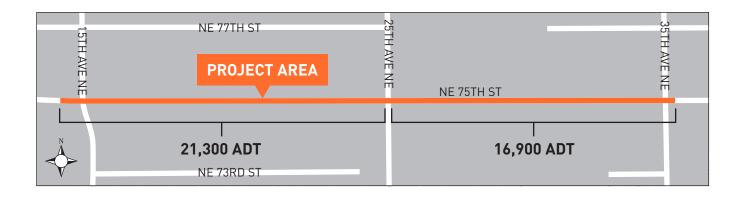
There are 102 parcels along the corridor and approximately 140 parking spaces. SDOT staff conducted three parking studies and found low parking utilization:

Study 1 – weeknight at 9 PM 23 cars parked total – 18 cars parked at 28th Avenue NE for a swim meet at Wedgwood Pool 5 cars parked elsewhere

Study 2 – Saturday at 5 AM 8 parked cars

Study 3 - Weekday at 1 PM 1 parked car

The underutilized parking allowed the road to function as a four lane street, which was a significant factor in developing the proposed redesign. None of the existing on-street parking spaces served people with disabilities. Private driveways and alley access provide parking accommodations for vehicles and on-street parking spaces are still unrestricted on nearby streets. Parking is unrestricted at Dahl Playfield for access to the Wedgwood Pool.



### EARLY IMPROVEMENTS

Prior to redesigning the street, SDOT made several early improvements in safety and speed reduction for the area, including:

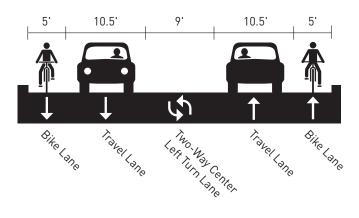
- Repainting the bus load zone for Eckstein Middle School on NE 75th Street
- Installing flashing beacons to enhance the visibility of the school zone speed limit installed during spring 2013
- Remarking the crosswalk at NE 68th Street and 25th Avenue NE with fresh and highly visible paint
- Deploying extra Seattle Police Department enforcement patrols throughout spring 2013

- Installing pedestrian countdown signals which countdown the number of seconds left to cross the street) and new east/west left turn signals in June 2011 at NE 75th Street and 35th Avenue NE
- Installing a new marked crosswalk to cross the south leg of 30th Avenue NE at the intersection of NE 75th Street in May 2012
- The pedestrian signal at the school crosswalk signal at NE 75th Street and 31st Avenue NE in 2013 was adjusted to be more responsive to pedestrians

## RECHANNELIZATION IMPROVEMENTS

The rechannelization narrowed the space for vehicles, installed a center turn lane, and provided two five foot bicycle lanes. Narrowing the space for vehicles has been shown to reduce vehicular speeds, while not decreasing the capacity of the street. The new design accommodates Metro Transit and school bus needs along the corridor.

The lack of parking use allowed the roadway to function as a four lane arterial street most of the day. The previous design, consisting of a single skip dash centerline, fostered the use of multiple travel lanes in each direction at all times of day. Adjacent land uses and vehicle traffic volumes did not support the need for four travel lanes. Four lane arterial streets are also susceptible to multiple threat pedestrian-vehicle collisions.



The following changes were made on NE 75th Street between 15th Avenue NF and 35th Avenue NE to improve safety and provide better transportation options for everyone using the corridor:

- One general purpose travel lane in each direction
- A two-way left turn lane
- A marked crosswalk at 28th Avenue NE
- Bicycle lanes striped in both directions.
- Crossing improvements
  - New crosswalk at 28th Avenue NE
  - Enhancements at existing crosswalk at 9th Avenue NE
- New pedestrian countdown signals installed at 25th Avenue NE

We also improved access and other street features near NE 75th Street:

- Photo enforcement cameras for Eckstein School Zone installed
- Traffic calming on 30th Avenue NE near Eckstein Middle School
- Spot parking restrictions and commercial access improvements
- Encroachment and overgrown vegetation remediation

We also installed "No parking" signs to restrict parking to accommodate the design improvements, but were able to preserve parking at Eckstein Middle School.

### BEFORE AND AFTER RESULTS

#### **SPEED**

The posted speed limit along NE 75th Street is 30 mph.

Prior to the redesign, speed data was recorded between 28th Avenue NE and 30th Avenue NE on May 2013. The speeds exceed the speed limit: 7% higher than posted speed limit eastbound and 11.7% higher than posted speed limit westbound.

Speed data was recorded again at the same location on October 2013 and October 2014, following the redesign. The 85th percentile speed declined eastbound and the westbound 85th percentile speed has remained steady.

After the redesign, the percent of speeders driving over the speed limit and percent driving 10+ mph over the speed limit declined significantly.

Aggressive speeding decreased significantly when the early improvements were made. Aggressive speeding in the westbound direction has been reduced significantly since the redesign but has increased slightly since the redesign.

85TH PERCENTILE SPEED BETWEEN 28TH AVENUE NE AND 30TH AVENUE NE Speed in miles per hour			
	Before Early Improvements March 2012	1-year After Rechannelization October 2014	Percent Change
Eastbound	34.2 mph	31.0 mph	-9% ♣
Westbound	37.2 mph	33.0 mph	-11% ♣

The 85th percentile speed is the speed at which 85 percent of drivers travel at or below on a roadway.

SPEEDERS  Percent driving over the speed limit				
	Before Early Improvements March 2012	1-year After Rechannelization October 2014	Percent Change	
Eastbound	56.9%	20.5%	-64% ♣	
Westbound	80.1%	35.0%	-56% ♣	

TOP END SPEEDERS  Percent 10+ mph over the speed limit				
	Before Early Improvements March 2012	1-year After Rechannelization October 2014	Percent Change	
Eastbound	1.2%	0.3%	-75% ♣	
Westbound	4.2%	0.9%	-79% <b>▼</b>	

#### **COLLISIONS**

SDOT reviewed collision records along NE 75th Street between 15th Avenue NE and 35th Avenue NE between January 1, 2010 and August 31, 2014.

The redesigned street has improved the overall safety of the corridor. Collision statistics show a substantial reduction in collisions and the number of drivers exceeding the speed limit.

- Decreased vehicle speeds and channelization changes reduced pedestrian exposure to vehicle traffic
- Two-way-left-turn lane has improved sight distance for left-turning vehicles and reduced the number of turn related crashes

NUMBER OF COLLISIONS ON NE 75TH STREET BETWEEN 15TH AVENUE NE AND 35TH AVENUE NE				
Collision Type	Before Early Improvements 1/1/2010 – 12/31/2012 (3 yrs)*	After Rechannelization 9/1/2013 – 8/31/2014	% Change Before and After Rechannelization	
<b>Total Collisions</b>	61	11	-45% ♣	
Right Angle	23	4	-48% ♣	
Rear End	6	1	-50% ♣	
Sideswipe	1	0	-100% <b>▼</b>	
Bicycle	1	0	-100% ♣	
Pedestrians	2	0	-100% <b>▼</b>	
Right Turn	5	0	-100% <b>▼</b>	
Left Turn	23	6	-22% <b>▼</b>	

<sup>\*</sup> Two pedestrian collisions were reported on 1/29/2013 and 3/25/2013 (4 pedestrians were involved).

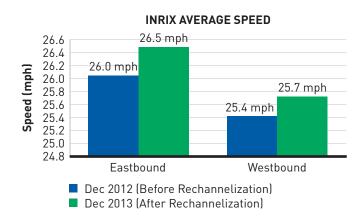
#### **VOLUMES AND AVERAGE SPEED**

In 2012, prior to rechannelization, there were approximately 15,500 vehicles per weekday between 28th Avenue NE and 30th Avenue NE. Traffic volumes decreased to approximately 13,000 vehicles per weekday. Following rechannelization, traffic volumes have been growing steadily over the years along the corridor.

INRIX speed data was recorded along NE 75th Street between 12th Ave NE and 55th Ave NE. Travel time has remained the same along the corridor:

- Eastbound speeds increased by 1.9%
- Westbound speeds increased by 1.2%

NE 75TH STREET TRAFFIC VOLUME			
	Before	After	Percent Change
AM Peak	1,010	1,098	+9% 👚
PM Peak	1,294	1,379	+7% 👚
Aveage Weekday	15,569	15,994	+3% 🛨



### CONCLUSION

The redesign has reduced collisions along NE 75th Street and has improved reliability along the NE 75th Street corridor. Vehicle speeds are now closer to the speed limit: eastbound went from 34.2 mph to 31.0 mph and westbound went from 37.2 mph to 33 mph. Aggressive speeding has decreased significantly when the early improvements were made.

The redesign has also provided additional benefits to the community:

- Rechannelization has allocated space for bicvcle lanes
- Collisions have been reduced by 50% since the redesign
- The pedestrian environment has been improved

- Two-way-left-turn lane has improved sight distance and reduced the number of vehicle turn related collisions
- A new crosswalk was installed across NE 75th St at 28th Ave NF
- SDOT will continue to monitor conditions on NF 75th St

#### **SUMMARY OF RESPONSES TO PUBLIC COMMENTS**

Over the course of public outreach, SDOT has collected valuable input from the community through public meetings, more than 100 emails, letters, and completed comment sheets. There were common themes associated with these comments and these concerns were addressed through the improvements made.

PUBLIC COMMENT	RESULT
Channelization improvements were requested along segments of NE 65th Street, NE 75th Street, 25th Avenue NE, 35th Avenue NE and Banner Way NE and at several signalized intersections.	Channelization improvements have been made to NE 75th Street and at the signalized intersections of 25th Avenue NE and 35th Avenue NE.  Channelization improvements at NE 65th Street and Banner Way NE will be addressed through a multi-year plan.
	SDOT will launch outreach for channelization improvements on Banner Way in late 2015.
Speeding is a problem along the NE 75th Street corridor and along segments of nearby arterial streets.	The percent of speeders have decreased and vehicle speeds are now closer to the speed limit.
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	traffic calming in neighborhoods.
The eight schools in the area increase pedestrian, bicycle, and vehicle volumes twice a day. Speeding on non-arterial streets during drop-off/pick-up hours is a problem near schools. Many students walk and bike to school and student safety is a priority for residents. New construction at Thornton Creek Elementary will likely change traffic patterns.	The percent of speeders have decreased and vehicle speeds are now closer to the speed limit.  Additional improvements have been made to reduce speeds to nearby streets, which include photo enforcement cameras near Eckstein and traffic calming in neighborhoods.
There is a strong desire to improve pedestrian and bicycle safety throughout the area. Suggestions included adding more and improving existing marked crosswalks, constructing sidewalks, adding bicycle facilities to NE 65th Street and NE 75th Street, and improving signal performance for pedestrians and cyclists.	Bike lanes were installed along NE 75th Street between 15th Avenue NE and 35th Avenue NE.  The traffic signals were re-timed several times to improve signal progression.
Improve access to parks throughout the area and reduce speeds on adjacent streets.	Additional improvements have been made to reduce speeds to nearby streets, which include photo enforcement cameras near Eckstein and traffic calming in neighborhoods.
Improve existing traffic signals to reduce turning movement conflicts with pedestrians and bicyclists and improve traffic flow.	The traffic signals were re-timed several times to improve signal progression.

PUBLIC COMMENT	RESULT
Congestion is an issue along several corridors during peak hours. This often leads to cut through traffic on non-arterial streets.	Data shows collisions have been reduced significantly along NE 75th Street providing more reliability for the corridor.
	Additional improvements have been made to reduce speeds to nearby streets, which include photo enforcement cameras near Eckstein and traffic calming in neighborhoods.
Existing parking restrictions should be reviewed and existing parking laws should be more strictly enforced. New parking restrictions are needed in a couple of locations.	Parking studies have shown low parking utilization along NE 75th Street. None of the existing on-street parking spaces currently serve disabled people. Alternative on-street parking spaces will still be available on nearby streets for residents and at the Dahl Playfield for access to the Wedgwood Pool.
Increased enforcement efforts are needed areawide to address speeding, distraction driving, impaired driving, and pedestrian and bicycle safety issues.	Photo enforcement cameras were installed to reduce speeding at Eckstein.  The Seattle Police Department conducted extra patrols on NE 75th Street in 2013.
Educational efforts should focus on behavioral issues like impairment, speeding, and distraction with more information about student, pedestrian, and bicycle safety.	SDOT supported a community outreach effort developed by the Wedgwood Community Council - Traffic Safety Awareness Week. Citywide educational outreach efforts focused on impaired driving. These efforts continue in 2015.

### **COMMUNITY FEEDBACK**

Feedback from the community regarding the new improvements and SDOT's public outreach role has been overwhelmingly positive. In a poll conducted by the Ravenna Blog, the majority of votes were in approval of SDOT's implementation and outreach efforts.

COMMUNITY FEEDBACK ON THE RECHANNELIZATION AND SDOT'S PUBLIC OUTREACH				
	Public Response			
	Yes	No	Unsure	
Do you think NE 75th St is safer now AFTER the channelization?	80% (245 votes)	15% (45 votes)	5% (16 votes)	
Are you pleased with the new channelization of NE 75th St?	75% (224 votes)	23% (68 votes)	2% (5 votes)	
Did you approve of SDOT's public outreach and design process?	57% (179 votes)	23% (73 votes)	20% (60 votes)	

Source: Wedgwood Community Council (http://wedgwoodcc.org/share-your-thoughts-on-sdots-channelization-of-ne-75th-st) on 1/27/15.

### **OUTREACH SUMMARY**

The project was initially announced by Mayor McGinn and reported by all local television and print media outlets as well as neighborhood blogs. SDOT worked closely with the Ravenna Bryant Community Association and Wedgwood Community Council to raise awareness of this project and the subsequent public meetings. SDOT set up a project website and listserv to communicate regularly with the public.

In all, SDOT held five public meetings to solicit feedback from the community. The first three meetings took place in April and May. More than 100 people attended the meetings and SDOT received many letters and emails on the subject. Comments from the meetings were strongly in support of improving the channelization along the corridor.

SDOT developed four channelization alternatives based on public comment, site observations,

and traffic data. In July, Mayor McGinn released the four alternatives at a press conference. This event was covered by most major news outlets and local blogs. The Mayor invited the public to comment on the proposals at two additional public meetings that took place in July.

Residents living adjacent to NE 75th Street were sent flyers announcing the second set of public meetings and the meeting announcement was circulated via the project listserv and website, the Ravenna Bryant Community Association and Wedgwood Community Council email lists, and the Ravenna Blog. Eighty-two people attended the second set of public meetings. The Ravenna Blog provided live coverage of the first meeting.

Staff also held one-on-one meetings with residents who live adjacent to NE 75th Street to review the channelization proposals and discuss parking needs.

