



# City of Tukwila Transportation and Infrastructure Services Committee

- ❖ Kate Kruller, Chair
- ❖ Mohamed Abdi
- ❖ Tosh Sharp

<b>Distribution:</b> K. Kruller C. Hougardy T. Sharp H. Ponnekanti S. Kim (email) G. Lerner (email)	City Attorney (email) Clerk File Copy  Place pkt pdf on SharePoint Z Trans & Infra Agendas  email cover to: F. Ayala, A. Le, C. O'Flaherty, A. Youn, B. Saxton, S. Norris, L. Humphrey
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## AGENDA

**MONDAY, NOVEMBER 21, 2022 – 5:30 PM**

**HYBRID MEETING – ONSITE AND VIRTUAL**

**DUWAMISH CONFERENCE ROOM, 6300 BUILDING, 2<sup>ND</sup> FLR**

**MS Teams: [Click here to join the meeting](#)**

**Virtual Meeting - Members of the public may listen by dialing 1-253-292-9750 and entering conference ID 96968911# 6300 BUILDING, SUITE 100)**

Item	Recommended Action	Page
<b>1. PRESENTATIONS</b>		
<b>2. BUSINESS AGENDA</b>		
a) Neighborhood Traffic Calming Program Project Update (C. Knighton)	a) Discussion only	Pg. 1
b) Transportation Analysis for Temporary One-Way Operations of the 42nd Ave. S Bridge (H. Ponnekanti)	b) Discussion only	Pg. 17
c) Public Works Campus, Phase 2 (B. Miles)	c) Discussion only	
<b>3. MISCELLANEOUS</b>		

**Next Scheduled Meeting: December 5, 2022**





## INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Services Committee**  
FROM: **Hari Ponnekanti, Public Works Director**  
BY: **Joshua Hartley, Deputy Director of Public Works**  
**Cyndy Knighton, Senior Program Manager**  
CC: **Mayor Ekberg**  
DATE: **November 18, 2022**  
SUBJECT: **Neighborhood Traffic Calming Program**  
**Project No. 80010301**  
**Project Update**

### **ISSUE**

Provide a status update to Council for the Top 10 List in the Neighborhood Traffic Calming Program (NTCP), including the Allentown Neighborhood Transportation Study Update.

### **BACKGROUND**

In 2021, the Council reinstated the full \$400,000 budget for 2022 by using ARPA funding made available to the City from the Federal Government. Public Works presented a Staff Top 10 Recommended NTCP Projects List that would utilize this funding. As of October 2022, Public Works has encumbered roughly \$374,000 on projects identified in the Top 10 List. The remaining balance (\$26,000) will be spent on replenishing normal stock items used in traffic calming such as street signs, luminaires, speed feedback signs, speed cushions for future installation, etc.

### **DISCUSSION**

This year, three NTCP projects have been completed, and three more are well underway. Project A – Allentown Neighborhood Speed and Safety Study, Project E – Tukwila Community Center Pedestrian Crossing Safety Improvements and Project J – S 144th Street/46th Avenue S ADA Ramps have all been completed.

The Allentown Neighborhood Transportation Study was completed in October 2022. At the March 2022 and April 2022 Allentown Community meetings, the draft study was shared with residents and businesses, and feedback was collected to help determine traffic calming recommendations for the neighborhood. There are at least nine recommendations provided in the attached report. The recommendations include speed limit reductions on 115<sup>th</sup>, additional signage and pavement markings, installing rectangular rapid flashing beacons (RRFBs), additional crosswalks, intersection geometry improvements at S. 124<sup>th</sup> Street and 50<sup>th</sup> Place S., speed cushions, and other traffic calming measures. Public Works is reviewing the report now and developing potential scope of work for future projects.

The City is actively searching and applying for grants to fund the recommendations identified in the Allentown Neighborhood Transportation Study. An application was submitted to the Washington State Department of Transportation’s Pedestrian and Bicycle Improvements grant for a raised crosswalk,

curb bulb outs, and an RRFB at the S 119<sup>th</sup> street bridge crossing on 42<sup>nd</sup> Ave S, which was a recommended improvement in the study. The City was recently notified by WSDOT that this project has been identified as a tier one funding priority. The City will be notified in early 2023 if the project is selected for funding.

NTCP projects that are still underway include: Project B – Tukwila Elementary School Safety Improvements, Project C – Impact Charter School Safety Improvements and Project D – Cascade View Elementary School Safety Improvements. Each of these projects have completed preliminary planning studies and are awaiting coordination with the individual schools before moving to final design of the recommended improvements. Each site has specific challenges and operations that need to be discussed to ensure appropriate design elements are considered and that specific needs are met.

**FINANCIAL IMPACT**

Projects on the Staff Top 10 List, including the recommendations made in the attached study, are now anticipated to cost at least \$1.2 million, potentially higher, based on the recommendations from projects such as Macadam Road and S. Ryan Way. Some of these costs can be borne by the existing \$400,000 annual budget, and Public Works staff are actively applying for grants where possible to provide additional funding for future projects in the Top 10 List.

**RECOMMENDATION**

For Discussion Only.

**ATTACHMENTS:** Top 10 Recommended NTCP Projects List Updated 11-04-22  
Top 10 Recommended NTCP Projects Map  
Final Allentown Transportation Analysis

**Staff Top-10 Recommended NTCP Projects**

*Modified 11/2/2022*

Project		Details	Potential Treatment Options	Status	Complete?	Original Cost Range Estimate	Updated Cost Estimate
A	Allentown Neighborhood Speed and Safety Study	Since 2018, five individual requests for traffic calming have been recorded in the NTCP list of requests; however, traffic complaints have been made to the City over prior years. Addressing traffic safety concerns in Allentown is a top priority for the City.		PW Staff reviewing recommendations and developing scope of work for future projects.	Yes	\$50,000-80,000	\$20k for study \$640k for CN of study recommendations
		Study neighborhood-wide volume, speed, classification and safety issues. Design plan for Level 1 and Level 2 treatments throughout Allentown.	Level 1: Improved signage; radar feedback signs; pavement marking modifications Level 2: Curb extensions				
B	Tukwila Elementary School Safety Improvements	Since 2018, 12 traffic calming requests have been made in the Cascade View neighborhood, with a significant number of them near Tukwila Elementary School. Common complaints have been over speeding and crosswalk or pedestrian safety. Additionally, the Council has asked for proactively addressing or anticipating concerns, specifically around school zones. Some improvements have been made around Tukwila Elementary School already but more improvements are needed.		Have reached out to Tukwila School District/Tukwila Elementary School staff to gain understanding of operations and challenges. Improvements will be made in 2023.	Underway	\$30,000-80,000	TBD
		Address speeding and crosswalk safety concerns.	Level 1: Improved signage; radar feedback signs; pavement marking modifications Level 2: Curb extensions; RRFB installation; ADA ramp upgrades; improved illumination				
C	Impact Charter School Safety Improvements	A request specific to the newly opened Impact Charter School was received in 2019. The request was to provide a signed school zone, which Tukwila has provided along with signs marking school crossings on S 148th Street. ADA-compliant ramps have not been installed at the marked school crossings. The charter school has expanded their site to the north with a need for consideration of a school zone on S 146th Street and other potential improvements for children's safety. Additionally, the Council has asked for proactively addressing or anticipating concerns, specifically around school zones.		Awaiting a proposed private development for possible ADA ramp improvement.	Underway	\$8,000-15,000	TBD
		Provide school crossing improvements, establish school zone on S 146th Street, if needed. Provide school crossing improvements, observe operating speeds, if necessary establish speed zone.	Level 1: Improved signage for school zones on S 148th Street and S 146th Street; crosswalk installation Level 2: ADA ramp improvements; curb extensions				
D	Cascade View Elementary School Safety Improvements	Since 2018, the Tukwila Hill neighborhood has seen 9 requests for traffic calming. Four of the locations are around the speeding, school crossing and pedestrian safety around the Cascade View Elementary School. 85th Percentile speeds of ~30MPH in the 25MPH zones have been recorded, but analysis to separate whether the speeding is even more than the posted school zone has not been done. Additionally, the Council has asked for proactively addressing or anticipating concerns,		Study for improved signage and crosswalk underway Design for ADA improvements later in year with construction likely in 2023	Underway	\$8,000-15,000	TBD
		Upgrade School Zone signing, design and install pedestrian crossing improvements.	Level 1: Improved signage for school zones on S 148th Street and S 146th Street; crosswalk installation Level 2: ADA ramp improvements; curb extensions				
E	Tukwila Community Center Pedestrian Crossing Safety Improvements	The City Council has expressed desire for the NTCP to have a proactive element in addressing traffic calming and safety needs throughout the City. The TCC is a well-utilized facility by the Allentown neighborhood as well as the entire City and surrounding area. Concerns over the pedestrian crossings on S 124th Street have been raised by staff and residents in the past, along with the larger complaints of speeding in Allentown. Increasing pedestrian visibility to improve safety in this high-use area is a recommended top priority for the NTCP.		Complete	Yes	\$80,000-100,000	\$15k PE \$47k RRFB units \$78k RRFB Installation
		Design and install mid-block pedestrian safety improvements on S 124th Street.	Level 1: Improve pedestrian crossing signage Level 2: RRFB installations; upgrade ADA ramps; curb extensions; improved illumination				
F	Macadam Road Speed and Safety Improvements	At least five requests for traffic calming, specific to speeding (and some secondary reasons) have been made since 2018. A radar feedback sign was placed near the 13700 block in 2019 but requests have continued to be made. Additional analysis is warranted to determine what other improvements could be used to address the speeding, especially where Macadam has extremely limited sight distance due to the curvy nature of the roadway.		Individual Project to begin design 1Q 2023.		\$10,000 - 30,000	TBD
		Design and install treatments addressing speeding and curve safety north of S 144th Street.	Level 1: Improved signage; LED chevron signs; channelization modifications Level 2:				

**Staff Top-10 Recommended NTCP Projects**

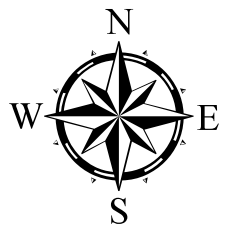
Modified 11/2/2022

Project	Details	Potential Treatment Options	Status	Complete?	Original Cost Range	Updated Cost
G Southcenter Boulevard/65th Avenue S Pedestrian Safety Improvements	Staff identified the need for improvement pedestrian safety at this location several years ago. Southcenter Boulevard is a 5-lane roadway with known speeding issues along with curves that restrict sight distance. A high pedestrian usage at this intersection accessing the King County Metro bus stop that services both the Rapid Ride F-Line and Route 150, both workhorses of the south County transit network, justifies improving pedestrian crossing safety. This intersection is slated for full signalization in the future, but interim pedestrian safety improvements should be considered sooner.		Funding available for design of full signal in 2022 CIP. Design to begin in 2022. Recommended improvements will be incorporated into signal project in the CIP.		\$50,000-\$90,000	TBD
	Design and install pedestrian safety improvements	Level 1: Improved signage for pedestrian crossing Level 2: RRFB installation; ADA ramp upgrades; improved illumination				
H City-wide Residential Speed Limit Review	As part of the City Council's expressed desire to proactively look at traffic calming needs, a full review of the residential street posted speed limits is recommended by staff. State law establishes city speed limits at 25MPH unless an engineering study is completed to justify higher speed limits. Most residential streets are posted at 25MPH today, but there are many that are posted at 30MPH or 35MPH. Likely, those speed limits are legacies of past annexation areas, where a speed study was completed by King County. The general impression Staff has is that most residents and elected officials would be happier with lower speed limits. City of Seattle has also recently lowered all speed limits nearly city-wide to be 25MPH.		Reviews to begin in early 2023.		\$5,000-8,000	TBD
	Identify residential streets with speed limits currently above 25MPH. Conduct volume, speed and safety review. Recommend changes to speed limits, as necessary.	Level 1: Modify speed limit ordinance; as needed; install new signs; as needed. Level 2:				
I S Ryan Way Pedestrian Safety Improvements	Two requests for traffic calming to address speeding and pedestrian crossing safety in the Ryan Hill area have been made in 2021. New developments are coming forward that will increase the residential population of this part of the City with multi-family developments. The speed concerns, especially along S Ryan Way, coupled with the new housing developments increasing the likelihood of increased pedestrian activity, warrants this analysis be recommended as a top priority.		Planning and Design to begin in early 2023. Will be stand alone project based on recommendations provided by the designer.		\$10,000-100,000	TBD
	Safety study on S Ryan Way from MLK Jr. Way to east city limits, focusing on speeding and pedestrian safety. Recommend Level 1 and Level 2 improvements. Design and construct improvements.	Level 1: Improved signage Level 2: Curb extension, improved illumination				
J S 144th Street/46th Avenue S ADA Ramps	The Tukwila School District requested school crossing safety improvements at this intersection in 2017. A new Rectangular Rapid Flashing Beacon was installed in early 2019. At the time the RRFB was installed, the City was also submitting a grant application for the 46th Avenue S Safe Routes to School project, which would improve pedestrian safety between this intersection south to S 150th Street, and would include either a raised pedestrian crosswalk at the RRFB or install ADA-compliant curb ramps. The grant was not awarded. State law requires ADA ramps be brought up to current standards anytime a new signal, including the RRFB, is installed. Since grant monies for the larger improvement are not expected in the short term, staff recommends this as a priority to comply with all state and federal laws regarding Americans with Disabilities Act		Complete	Yes	\$15,000-20,000	\$15k PE \$90k Construction
	Design and install ADA-compliant ramps at the intersection.	Level 1: Level 2: ADA upgrades to ramps at RRFB (not done at time of RRFB installation due to budget constraints)				



# City of Tukwila

## Top 10 Staff Recommended NTCP Projects

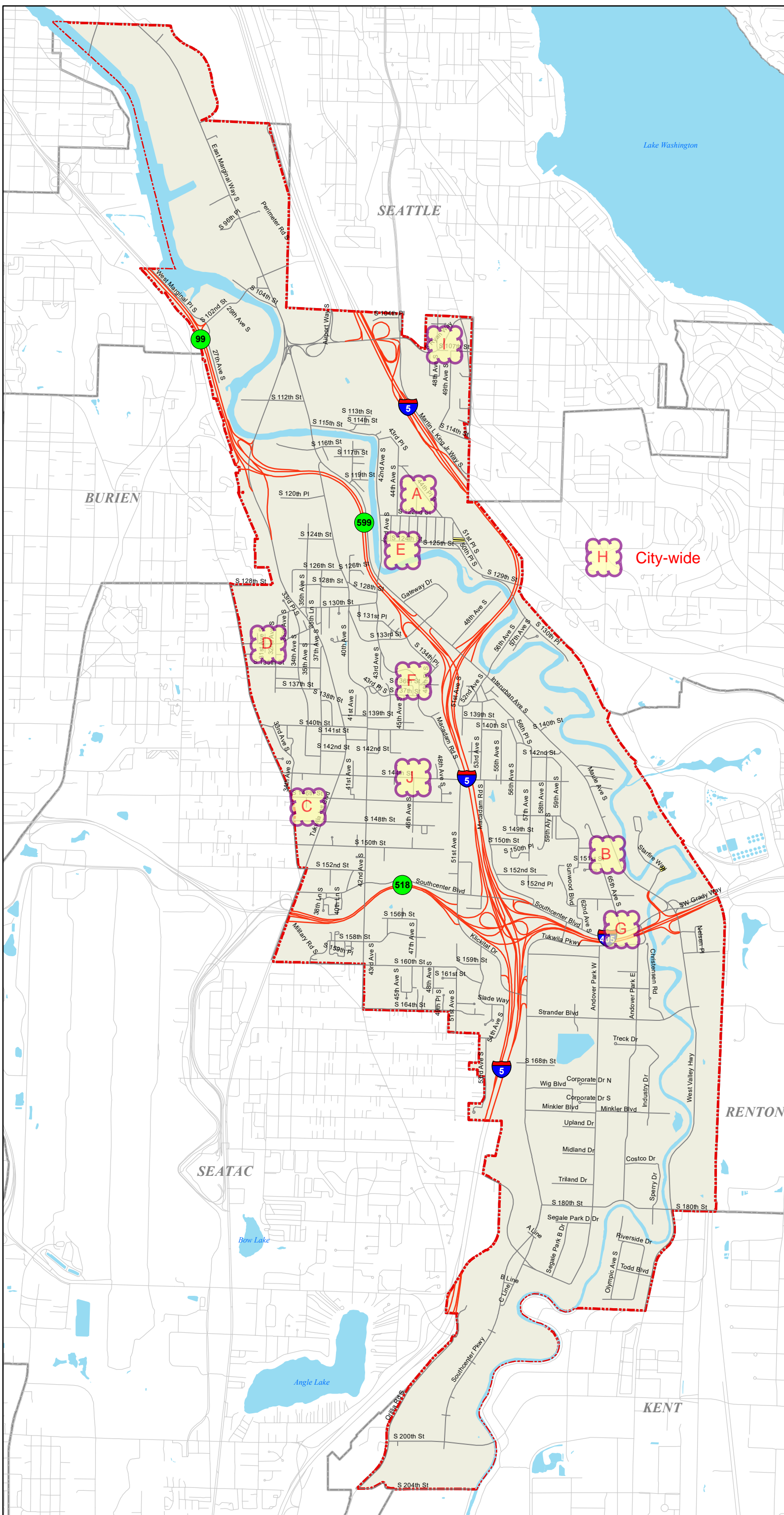


Not to Scale

### Vicinity Map



Disclaimer: The location of features and boundaries are approximate and are intended for reference only. Data is based on best information available.



## Memorandum

**To:** Public Works Department, City of Tukwila  
**From:** KPG Psomas  
**Date:** October 10, 2022  
**Re:** Allentown Neighborhood Transportation Study

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The City has received several requests for traffic calming from citizens in the Allentown Neighborhood. As part of the Neighborhood Traffic Calming Program, the City hired KPG Psomas to evaluate existing roadway and non-motorized facilities, adjacent land uses, vehicle speeds, vehicle volumes, signage, and five years of historical crash data. KPG Psomas and City staff met with the Neighborhood several times to understand their issues and concerns, hear feedback on potential improvements, and share recommended improvements. Based on this analysis and community input, KPG Psomas and the City developed a set of recommended improvements to calm traffic, improve safety, and enhance pedestrian mobility.

The approximate boundaries of the Allentown Neighborhood are the Duwamish River to the south and west, S 115th Street to the north, and I-5 to the east. The primary land uses in the Neighborhood are residential, Tukwila Community Center, and BNSF Railway Intermodal facility. **Figure 1** shows a map of the Allentown Neighborhood study area.

### **Street Network**

Due to the Duwamish River, BNSF Railroad tracks, and I-5 being located around the perimeter of the Allentown Neighborhood, there are only three vehicle access points to the Neighborhood at S 115th Street, 42nd Avenue S bridge over the Duwamish River, and 50th Place S that connects to S 129th Street. S 129th Street provides one of the few crossings of the BNSF Railroad tracks and I-5 in the area.

There are two street classification types in the Allentown Neighborhood: Collector Arterials and Local Streets. The Collector Arterials are S 115th Street, 42nd Avenue S, S 124th Street, and 50th Place S. The Collector Arterials are intended to carry the majority of the traffic through the Neighborhood. Local Streets are intended to provide circulation and access to adjacent properties. Except for local access, trucks are restricted on S 115th Street and the segment of 42nd Avenue S, north of S 124th Street.

### **Truck Traffic**

The BNSF Railway Intermodal facility is located along the eastern boundary of the Neighborhood with its primary access on S 124th Street at 51st Place S. This facility generates a high volume of truck traffic as containers are transferred between trains and trucks. Baker Commodities, a



rendering plant, also generates truck trips along S 124th Street and 50th Place S as the only access to the plant is from Railroad Avenue S which intersects 50th Place S at the southeast corner of the Neighborhood. There are other manufacturing and industrial businesses in the Neighborhood along 44th Place S and 51st Place S that generate truck traffic and trucks must use Local Streets to access these businesses.

**Figure 1. Allentown Neighborhood Study Area**



## Related Projects in Allentown

### Allentown Truck Reroute Project

This project is evaluating potential alternative routes to access the BNSF Railway Intermodal facility. Alternatives include maintaining the existing access at S 124th Street or relocating the access to the north or south. An Environmental Impact Statement (EIS) is currently being prepared to assess the impacts of each alternative, and recommend a preferred access location.

### Replacement of 42nd Avenue S bridge over Duwamish River

The 42nd Avenue S bridge over the Duwamish River connects the Allentown Neighborhood with Interurban Avenue S. In December 2021, the bridge was damaged by an over-height truck load and was closed to all modes of travel pending repairs. The existing bridge is considered structurally deficient and the bridge is currently only open in the southbound direction. The City is designing a new bridge that will be constructed at the same location.

## Traffic Calming

Traffic calming uses information, educational, and physical improvements and other strategies to slow vehicle speeds and improve safety through neighborhood areas. Traffic calming treatments include signs, striping and pavement markings (paint), on-street parking, narrowing the roadway, raised curb, curb bulbs, chicanes, roundabouts, center medians, speed cushions, raised crosswalks, and other treatments. The decision on whether to install traffic calming should consider the potential for diverting traffic to parallel routes, emergency vehicle response times, type of vehicles using the roadway, travel delay, and neighborhood support.

For collector arterial streets such as S 115th Street, 42nd Avenue S, S 124th Street, and 50th Place S, KPG Psomas does not recommend the installation of speed humps or cushions for the following reasons:

- Inappropriate for collector arterials which are intended to carry the majority of traffic.
- Potential for vehicles to shift from arterials to parallel local streets.
- Negative impacts to emergency vehicle response times (including Tukwila Fire Station 53).
- Noise impacts to homes due to vehicles crossing cushions, braking and accelerating.
- Not compatible with truck operations that access existing businesses in the Neighborhood.

## Analysis Findings and Recommended Improvements

Transportation volume and speed data were collected from 2020 to 2022 during the COVID-19 pandemic when traffic volumes were potentially lower due to more people working from home and fewer people traveling for social and recreational activities. The 42nd Avenue S bridge over the Duwamish River was closed for repairs when the 2022 traffic data was collected on 42nd Avenue S, north of S 124th Street. As part of the analysis, KPG Psomas also evaluated five years of historical crash data. A summary of the crash data is provided in **Appendix A**.

The following sections describe the characteristics of individual streets in the Neighborhood and the recommended improvements to calm traffic, improve safety, and enhance pedestrian mobility. **Figure 2** shows the recommended improvements. The implementation of these improvements will depend on available funding for design and construction. Cost estimates for the recommended improvements are included in **Appendix B**.

**Figure 2. Allentown Neighborhood Recommended Improvements**

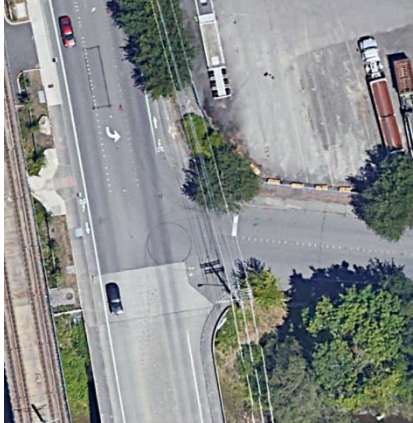


**S 115th Street**

Street Classification	Collector Arterial
Speed Limit	30 mph
Eastbound Average Vehicle Speed	21 mph
Eastbound 85th Percentile Vehicle Speed	36 mph
Westbound Average Vehicle Speed	21 mph
Westbound 85th Percentile Vehicle Speed	36 mph

Note: Data collected July 2020.

S 115th Street runs east-west between East Marginal Way S and 42nd Avenue S. The street provides access to the Duwamish Hill Preserve and the Allentown Neighborhood. There is a sidewalk on the north side of the street.



East Marginal Way and S 115th Street intersection

**Recommended Improvements**

- A. Speed limit reductions – lower the speed limit on S 115th Street from 30 mph to 25 mph to lower speed entering the Allentown Neighborhood and to be consistent with the speed limit on 42nd Avenue S. On East Marginal Way approaching the 115th Street intersection, install 25 mph advisory speed limit signs to warn drivers of turning vehicles.

**42nd Avenue S**

	Segment north of S 124th Street <sup>1</sup>	Segment south of S 124th Street <sup>2</sup>
Street Classification	Collector Arterial	Collector Arterial
Speed Limit	25 mph	25 mph
Northbound Average Vehicle Speed	31 mph	25 mph
Northbound 85th Percentile Vehicle Speed	36 mph	30 mph
Southbound Average Vehicle Speed	31 mph	23 mph
Southbound 85th Percentile Vehicle Speed	36 mph	29 mph
Average Weekday Traffic Volume	3,900	9,300

Notes: <sup>1</sup>Data collected 1/13/2022-1/22/2022 when 42nd Avenue S bridge over Duwamish River was closed.

<sup>2</sup> Data collected August 2021.

42nd Avenue S runs along the Duwamish River with residential homes along the east side of the street. There is a pedestrian bridge crossing of the river at S 119th Street and the Duwamish Park is located at approximately S 117th Street. A continuous sidewalk runs along the east side of the street between S 115th Street and Interurban Avenue S, except for a missing segment at the S 124th Street/42nd Avenue S intersection. The 42nd Avenue S corridor experienced 10 crashes during the five-year study period.



42nd Avenue S at S 119th Street (looking north)

**Recommended Improvements**

- B. 25 mph pavement markings – paint 25 mph markings on southbound 42nd Avenue S, south of S 115th Street and on northbound 42nd Avenue S, north of S 124th Street.
- C. Improved pedestrian crossing and traffic calming – construct a Rectangular Rapid Flashing Beacon (RRFB) system, raised crosswalk, curb bulbs, and ADA sidewalk improvements at the S 119th Street pedestrian bridge crosswalk to shorten the pedestrian crossing distance, narrow travel lanes, and calm traffic.

**S 124th Street**

Street Classification	Collector Arterial
Speed Limit	25 mph
Eastbound Average Vehicle Speed	27 mph
Eastbound 85th Percentile Vehicle Speed	33 mph
Westbound Average Vehicle Speed	27 mph
Westbound 85th Percentile Vehicle Speed	33 mph
Average Weekday Traffic Volume	8,100

Note: Data collected July and August 2021.

S 124th Street provides access to single family homes, Tukwila Community Center, and BNSF’s Intermodal facility at the east end of the street. There is curb and sidewalk along the frontage of the Community Center and the north side of the street has a pedestrian walkway with segments of extruded curb that provide a buffer from the roadway between 42nd Avenue S and 49th Avenue S. An eastbound vehicle speed radar feedback sign is located at 45th Avenue S. S 124th Street experienced 8 crashes during the five-year study period. In 2019, there was a fatal vehicle-pedestrian crash at the S 124th Street/46th Avenue S intersection.



S 124th Street at 46th Avenue S (looking west)

**Recommended Improvements:**

- D. Improved pedestrian crossings – install Rectangular Rapid Flashing Beacon (RRFB) systems at 44th Avenue S (Community Center driveway) and 46th Avenue S. Construct raised curbs and sidewalks to separate pedestrians and vehicles, narrow the pedestrian crossing distance, and provide traffic calming.
- E. North side pedestrian walkway between 49th Avenue S and 51st Place S – construct a continuous pedestrian walkway along north side of S 124th Street.
- F. Reconfigure S 124th Street/50th Place S intersection - remove eastbound right turn slip lane to calm traffic and improve safety. Currently eastbound right turning vehicles are not required to stop. Reconfigure the intersection with single-lane approaches and require all vehicles to stop.



S 124th Street/50th Place S intersection

### S 125th Street

S 125th Street is a local street along the Duwamish River that connects between 46th Avenue S and 50th Place S. Residents along the street have expressed concerns regarding speeding and cut-through traffic. There have been 3 crashes at the S 125th Street/50th Place S intersection over the last 5 years. This intersection is just south of the S 124th Street/50th Place S intersection, which has an eastbound right turn slip lane that does not require vehicles to stop.

#### Recommended Improvements

- G. Speed cushions – continue to monitor vehicle speeds and volumes in order to evaluate potentially installing speed cushions. Coordinate with residents along S 125th Street to determine if they support speed cushions. Speed cushions could be an appropriate treatment along this street because there is not a parallel local street that could be impacted by diverting traffic.

### 50th Place S

Street Classification	Collector Arterial
Speed Limit	25 mph
Northbound Average Vehicle Speed	32 mph
Northbound 85th Percentile Vehicle Speed	36 mph
Southbound Average Vehicle Speed	33 mph
Southbound 85th Percentile Vehicle Speed	39 mph
Average Weekday Traffic Volume	7,300

Note: Data collected July and August 2021.

50th Place S connects between S 124th Street and S 129th Street. S 129th Street crosses the BNSF tracks and I-5, and is the southeast entrance to the Allentown Neighborhood. 50th Place S serves residential properties and Codiga Park along the Duwamish River. There is a segment of sidewalk on the west side of the street along the Park’s frontage. The eastside of the street has a striped paved shoulder that has a few segments of extruded curb that provide separation from vehicles.



50th Place S, looking south

#### Recommended Improvements

- H. Pedestrian walkway – construct a continuous pedestrian facility on either the west or east side of the street.
- I. Northbound vehicle radar feedback sign – add a feedback sign at Railroad Avenue, where 50th Place S enters the Allentown Neighborhood.

## **Local Streets**

Within the Allentown Neighborhood, the local streets are low-volume streets that provide access to homes and businesses. These local streets typically do not include formal pedestrian facilities and on-street parking is typically allowed.

### Recommended Improvements

- J. Reduce default speed limit from 25 mph to 20 mph for local streets – this could be part of a citywide speed limit reduction effort.

## Appendix A.

### Allentown Neighborhood Crash Data by Corridor – 5 Year Period

Corridors	Rear end	Sideswipe	Head On	Left Turn	Angle	Fixed Object	Exits Roadway	Pedestrian	Pedal-cyclist	Other	Total
42nd Ave S				3	1	4 (1)	1 (1)			1	10 (2)
S 124th St <sup>1</sup>	1		1	2	2			1 (1)		1	8 (1)
50th Pl S <sup>2</sup>	1				1	2					4
46th Ave S		1				2					3
S 122nd St				1	1						2
S 125th St						1				1	2
S 115th St						1					1
S 116th St										1	1
45th Ave S						1					1
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>11 (1)</b>	<b>1 (1)</b>	<b>1 (1)</b>	<b>0</b>	<b>4</b>	<b>32 (3)</b>

Source: WSDOT crash data from (9/10/2016 - 9/9/2021).

Notes: (#) indicates severe (fatality or serious injury) crashes.

<sup>1</sup> Crashes at the 42nd Avenue S/S 124th Street intersection are included with the 42nd Avenue S corridor.

<sup>2</sup> Crashes at the S 124th Street/50th Place S intersection are included with S 124th Street corridor.



## Appendix B.

### Cost Estimates Summary

ID	Project	Cost Estimate
A	S 115th Street - Speed limit reduction from 30 mph to 25 mph	\$2,000
B	42nd Avenue S – Two 25 mph pavement markings	\$5,500
C	42nd Avenue S – RRFB system with raised crosswalk and curb bulbs at S 119th Street	\$245,000
D	S 124th Street – Improved crosswalks with RRFBs and curb bulbs at 44th Avenue S and 46th Avenue S [COMPLETE 2022]	\$70,000
E	S 124th Street – North side pedestrian walkway between 49th Avenue S and 51st Place S	\$624,000
F	S 124th Street – Reconfigure S 124th Street/50th Place S intersection to single-lane approaches and all-way stop control	\$750,000
G	S 125th Street – Speed cushions (\$5,000 each)	\$10,000
H	50th Place S – Continuous pedestrian facility	\$185,000
I	50th Place S – Northbound vehicle radar feedback sign	\$10,000



# Memorandum

**To:** Public Works Department, City of Tukwila  
**From:** KPG Psomas  
**Date:** November 11, 2022  
**Re:** Transportation Analysis for Temporary One-Way Operations of the 42nd Ave. S Bridge

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## Introduction

The 42nd Ave. S bridge over the Duwamish River connects the Allentown Neighborhood with Interurban Ave. S. In December 2021 the bridge was damaged by an over-height truck load and was closed to all modes of travel. The City is designing a replacement bridge that will be constructed in the same location.

Repairs to the bridge allowed it to open with load restrictions that would accommodate only one-way travel, and on April 4th, 2022, the bridge was reopened in the southbound direction only. The bridge is expected to continue to be open to one-way travel for the next 20 months, when completion of a temporary bridge will allow travel in both directions. A new permanent bridge is scheduled to open in late 2024 or in 2025.

Six months have passed since the repaired 42nd Ave. S bridge was reopened, and the City has requested a reevaluation of the decision to operate the bridge with southbound-only traffic.

## Traffic Volumes

Traffic counts of the bridge that were conducted from October 19th-25th, 2022 showed that approximately 3,200 vehicles per weekday use the bridge in the southbound direction. The counts also showed that 28 vehicles per weekday are illegally driving northbound across the bridge, mostly at off peak times (7:00 pm to 4:00 am) when southbound traffic on the bridge is lower. If bridge traffic direction was switched to the northbound direction, we expect that a similar number of vehicles would illegally cross the bridge in the southbound direction.

## Traffic Analysis

Currently, southbound traffic on the bridge can use the traffic signal at the 42nd Ave. S/Interurban Ave. S intersection to exit the neighborhood, providing a protected signal phase that allows southbound vehicles to efficiently and safely access Interurban Ave. S, or travel south on Macadam Road S.

We analyzed traffic conditions for northbound-only traffic on the bridge. This would require the 3,200 vehicles per weekday currently traveling southbound on the bridge to drive north and exit the Allentown neighborhood at the S 115th Street/East Marginal Way S intersection. This intersection is unsignalized, north-south traffic on East Marginal Way S having the right of way. Westbound vehicles on S 115th Street have a stop sign and are required to find gaps in both

directions of traffic before turning left and traveling southbound on East Marginal Way S. Currently, the westbound intersection approach operates at level of service (LOS) B during both the AM and PM peak hours. Changing the bridge to northbound-only travel would significantly increase the number of westbound left-turning vehicles at the S 115th Street/East Marginal Way S intersection. This would result in increased delays and queuing, and the intersection worsening to LOS F during both the AM and PM peak hours. In addition, westbound drivers at the S 115th Street/East Marginal Way S intersection have limited sight distance to the south, making it more difficult to turn left onto southbound East Marginal Way S.

**Recommendation**

We continue to recommend that the 42nd Ave. S bridge operate in the southbound-only direction for the next 20 months until a temporary bridge is built. In comparison to exiting the neighborhood at the unsignalized S 115th Street/East Marginal Way S intersection, using the traffic signal at the 42nd Ave. S/Interurban Ave. S intersection is safer and more efficient.