

Where is the project located?

The project is located on NE 145th Street between 5th Avenue NE and the on and off-ramps on the west side of I-5.

Why are improvements needed at the interchange?

Today, the 145th Street corridor is significantly congested, particularly during peak hours. The corridor right-of-way is narrow, making it challenging to accommodate the needs of pedestrians, transit users, cyclists, and people with disabilities, as well as the high volume of vehicles that use 145th Street every day. The 145th Street corridor and I-5 interchange needs significant upgrades to improve mobility, safety, and efficiency for all transportation modes and all users. If left unaddressed, current challenges will become even more pronounced with the opening of Sound Transit's Shoreline South/145th Link light rail station in 2024.

What are the benefits of the project?

The 145th Street & I-5 Interchange Project will improve safety and multimodal access along the 145th Street corridor and help connect to the future Sound Transit Shoreline South/145th Link light rail station, planned to open in 2024. The interchange improvements will alleviate traffic congestion and enhance transportation mobility, reliability, and safety for all users, including pedestrians, bicyclists, transit, and freight.

The whole corridor is congested. Are other projects addressing traffic congestion?

In 2016, the City of Shoreline completed the 145th Street Multimodal Corridor Study and developed a preferred design concept for the corridor from 3rd Avenue NW to Bothell Way NE/Lake City Way (SR 522). Through an extensive public process and thorough technical analysis, the City tailored the planned improvements to maximize benefits while minimizing negative community impacts.

As a result of this study, Shoreline has received federal funding to complete design on two sections of the corridor: this interchange project and the portion of the 145th Street corridor from Aurora Ave(SR 99) to I-5. Both projects are now being designed.

Additionally, the City of Shoreline has received federal funding for design of a <u>pedestrian/bicycle bridge</u> across I-5 at 148th Street that will connect directly to the new <u>Shoreline South/145th Station</u>. Sound Transit is also in the process of designing improvements on the 145th corridor from Lake City Way to the I-5 interchange to support bus rapid transit.

Why is this project building roundabouts instead of

In 2018 and 2019, in collaboration with WSDOT, Sound Transit, City of Seattle, and King County Metro, the City of Shoreline evaluated several alternative design concepts. Through this process, the City



intersections with traffic lights?

and our partners worked to identify a design that would increase safety and efficiency for all travel modes, including cars, freight, transit, pedestrians, and bicyclists. Working in collaboration with multiple stakeholders, the City conducted digital modeling of traffic flows and intersection performance, and even tested a full-scale mockup of the roundabout design using Metro buses.

Initially, the City and our partners considered widening the 145th Street bridge to accommodate people walking and biking, constructing a new northbound I-5 button-hook on-ramp, and installing new traffic lights at the intersections at 5th Avenue NE and the I-5 ramps on the west side of the freeway. However, our analysis showed that multi-lane roundabouts would offer a greater improvement in safety and roadway capacity. Compared to signalized intersections, roundabouts will:

- Improve safety for drivers by decreasing speeds and routing traffic in the same direction, reducing the severity of crashes.
- Improve safety for pedestrians and bicyclists by separating them from vehicle traffic at well-marked and lighted crosswalks and reducing crossing distances.
- **Promote continuous traffic flow**, reducing overall travel times and minimizing delays along the 145th Street corridor.
- Eliminate the need for left-turn lanes on the bridge, creating space for a two-way, 10-foot bike lane and a 5-foot sidewalk along the north side of the bridge.
- Eliminate the need to widen the existing bridge, substantially reducing construction costs.
- Reduce lifecycle operating and maintenance costs for the two intersections.

These improvements will address today's and future transportation needs and improve safety and access along the corridor for decades to come.

What are the benefits to roundabouts?

The City of Shoreline's redesign of the 145th Street and I-5 interchange is based on data that shows the benefits of roundabouts for safety, traffic flow, efficiency, and cost. According to wsb.or/ traffic studies, roundabout intersections can provide lasting benefits in many ways, including:

Roundabouts reduce the rate and severity of collisions.
 Roundabouts reduce the likelihood of collisions by 37%,



injury crashes by 75%, fatality collisions by 90%, and pedestrian-car collisions by 40%. Roundabouts also significantly reduce the likelihood of T-bone and head-on collisions.

- Roundabouts calm traffic. Roundabout speeds are usually about 20 mph. Drivers must slow down and yield before entering the roundabout and they are less likely to feel the need to speed up to try to "beat the light."
- Roundabouts are more efficient. Roundabouts improve traffic flow and reduce waiting time. They facilitate a continuous flow of traffic and can accommodate higher traffic volumes with fewer lanes on the approaching streets.
- Roundabouts are cost-effective. Long-term costs for roundabouts are lower because traffic signal maintenance and electrical costs are not needed. Roundabouts are also more effective during power outages. The cost of building a roundabout is comparable to that of a signal-controlled intersection.
- Roundabouts accommodate all sizes of vehicles. Large trucks, buses, and oversize vehicles can straddle both lanes when driving in a roundabout. Most roundabouts have a truck apron, a raised section of pavement near the center of the roundabout that gives large vehicles extra room to navigate the roundabout.
- Roundabouts are safer for pedestrians and bicyclists. Crosswalks are set back from the intersection, allowing drivers more time to react to pedestrians. Roundabout islands also provide refuge for crossing pedestrians and bicyclists.

How do I drive through the new roundabouts?

How to navigate multi-lane roundabouts

- Check the signs to choose the correct lane for your destination
- Yield to traffic already in the roundabout (all lanes)
- Stay in your lane through the roundabout



- Give buses and large vehicles space when approaching and traveling through the roundabout, as they may take more than one lane
- Yield to people in crosswalks, as in any intersection

How will people walking and biking cross the bridge and use the new roundabouts?	The existing bridge over I-5, which will connect the two roundabouts, will have ADA-accessible sidewalks on either side, allowing a seamless crossing for pedestrians. The pedestrian crossings will also include flashing beacons to increase safety. Bicyclists will use crosswalks to navigate the roundabouts and a two-way bike lane, separated from motorized traffic, to safely cross the bridge.
Without signals, how will people walking and biking cross the streets that approach the roundabouts?	Crosswalks will be clearly marked and safely set back from the intersection, making the roundabout easy to navigate for pedestrians and allowing drivers more time to react. Roundabout islands will provide refuge for crossing pedestrians, and crosswalks will also include flashing beacons to increase visibility.
How will drivers entering and exiting using I-5 be prepared to yield to pedestrians and bicyclists?	Pedestrian and bicyclist crossings will be set back from the lanes and clearly marked to notify drivers. The pedestrian crossings will also include flashing beacons to increase visibility.
Will large trucks and buses be able to fit and navigate the roundabout?	Large trucks, buses, and oversize vehicles can straddle both lanes when driving through a roundabout. Some roundabouts have truck aprons, a raised section of pavement that give large vehicles extra room to navigate the roundabout.
	To ensure that buses will be able to safely navigate the roundabouts, the WSDOT Regional Transit Coordination Division assisted King County Metro in organizing a "Roundabout Rodeo" with Seattle Department of Transportation (SDOT) and the City of Shoreline. This exercise is a proven method for testing the functionality of a proposed roundabout design. The design was laid out on the ground using paint and traffic cones. Metro operators were able to successfully drive in, around, and out of the roundabouts.
Will this project change the I-5 northbound on-ramp?	The I-5 northbound on-ramp will remain in its current location on 5th Avenue NE, just north of NE 145th Street. A new signalized three-way intersection will be installed on 5th Avenue NE near the northbound on-ramp. This new intersection will be built as part of Sound Transit's Shoreline South/145th Station.
How does this project connect with other projects?	This project is one of eight different transportation projects linked to the opening of the Shoreline South/145th Station in 2024. The goal

for all these projects is to ensure pedestrians, bicyclists, transit, and



auto traffic can get to and from the station as safely and efficiently as possible.

The projects below, including the 145th Street & I-5 Interchange Project, are linked on the <u>Destination 2024 website</u>, which includes an interactive map illustrating how all the projects fit together.

- 145th Corridor Project (I-5 to Aurora)
- 145th/I-5 Interchange Project
- 148th Street Non-Motorized Bridge
- 1st Avenue NE Sidewalks (145th to 155th Streets)
- 5th Avenue Rechannelization
- Off-Corridor Bike Network
- SR 522/523 BRT Project (Bothell/Lake City Way and 145th Street Bus Rapid Transit)
- Trail Along the Rail

Is the City coordinating the project with regional agencies?

The City of Shoreline is working closely with WSDOT, Sound Transit, SDOT, and King County Metro.

The City will lead the project through completion of 30% design, which is anticipated to be complete in early 2021. The project will then be handed off to WSDOT, who will complete environmental documentation, design, and construction.

How will the City manage environmental impacts and preserve mature trees in the project area? The City is committed to protecting natural areas and mitigating any environmental impacts. The interchange improvements will be balanced with the City's commitment to protect mature trees and environmentally sensitive areas. The improvements also provide the City with an opportunity to improve local water system health by enhancing area stormwater management and flood control.

What type of environmental analysis will the project team be completing?

In order to understand the potential impacts of the project on the surrounding environment, WSDOT will conduct analysis in compliance with local, state, and federal regulations. Permitting will follow the State Environmental Policy Act (SEPA) and National Environmental Policy Act (NEPA) processes.

When is the Sound Transit Shoreline South/145th Link light rail station scheduled to open? It is scheduled to open in 2024.

How have community members been involved with the project thus far? What elements will the public be able to provide input on? The City of Shoreline conducted the 145th Street Multimodal Corridor Study in 2015-2016 to evaluate current conditions for all users, while considering transportation demands from the new Link light rail station. Through an extensive public process, the City tailored the



	planned improvements to maximize benefit while keeping community impacts to a minimum.
What is the project schedule?	The City plans to complete 30% design by early 2021. The project will then be handed off to WSDOT, who will complete environmental documentation, design, and construction. Throughout the remainder of the project, the City will remain directly involved as a major stakeholder.
	End of 2020: City completes 30% design Early 2021: Project handoff to WSDOT 2021 to 2022: Final design and permitting 2022 to 2024: Construction
How will the project be funded?	The project is not fully funded at this time but is anticipated to be funded through design and construction by the end of the year. The design and environmental phase is estimated to cost \$4.5 million, with \$3.89 million in funding coming from a federal grant. Overall costs to complete the project are currently estimated at \$25 million. The City continues to seek grants and work with partners to fully fund the project.
Will the City need to purchase property to build the project?	The City will be acquiring additional property (right-of-way), mainly for the west roundabout. The City will mostly purchase sections of parcels, that are within the mixed-use residential zone directly adjacent to I-5, most of which have already been acquired by private developers. The City will follow the requirements of the federal Uniform Relocation Act (URA) when working with both commercial and private property owners to acquire needed right-of-way.
Who will be responsible for maintaining the roundabouts once they are constructed?	The existing intersections and the bridge over I-5 are currently maintained by WSDOT. The City anticipates that the roundabouts and other facilities within this area will continue to be maintained by WSDOT.