



Puget Sound Regional Council

Funding Application

Competition	Regional FTA
Application Type	Main Competition
Status	submitted
Submitted:	April 24th, 2020 4:00 PM
Prepopulated with screening form?	No

Project Information

- Project Title**
Buses for the New SR 522/NE 145th Bus Rapid Transit Service
- Regional Transportation Plan ID**
42
- Sponsoring Agency**
Sound Transit
- Cosponsors**
N/A
- Does the sponsoring agency have "Certification Acceptance" status from WSDOT?**
N/A
- If not, which agency will serve as your CA sponsor?**
N/A
- Is your agency a designated recipient for FTA funds?**
Yes
- Designated recipient concurrence**
Not applicable.

Contact Information

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Project Description

- Project Scope**
Purchase six battery electric high capacity transit buses to support Sound Transit's new bus rapid transit (BRT) service along 8 miles of NE 145 St and SR 522 between Shoreline and Bothell, with service to Woodinville also being evaluated. (Note: these buses are separate from the I-405 BRT FHWA funding request). When service opens in 2024/25, transit riders will be able to reliably connect from eastside communities feeding from I-405 BRT at the I-405/SR 522 Transfer Hub at the I-405/522 interchange westbound through the University of Washington Bothell Campus along the SR 522 corridor on to Link Light Rail at Shoreline South/145th Street Station.

Project Description:

The buses are part of the new BRT "STRIDE" service that will connect the communities of Shoreline, Seattle, Lake Forest Park, Kenmore, Bothell, and Woodinville along NE 145th/522 to the region's light rail system. Ridership in the corridor is forecasted to go from 5,000 to 9,000

daily riders. This new service offers 8 miles of fast, frequent and reliable bus service connecting to Link light rail at Shoreline South/145th and I-405 BRT in Bothell, as well as connections to other transit service provided by Community Transit (CT) and King County Metro (KCM). The BRT project will include up to 14 stations and expanded parking - 900 new parking stalls. Non-motorized improvements include bicycle and pedestrian access and sidewalks, and the project will support city-led efforts related to transit-oriented development near the park-and-rides and BRT stations.

BRT service differs from traditional bus service in that it makes fewer stops and travels longer distances, with faster loading and unloading as boarding is allowed via all three doors. The payment system enables riders to quickly board on all three doors. Enhancements such as raised boarding areas and display screens that show bus arrival times enhance user experience, while features such as transit signal priority and use of dedicated lanes for transit, HOVs, and business access increase both speed and reliability. BRT is tailored to meet the needs of commuters and those who need fast service traveling over long distances.

BRT riders will be able to reliably travel from UW Bothell to Shoreline/145th light rail station in 22 minutes. (For comparison, per Google maps, can take up to 45 minutes to drive the same distance in congested periods.) BRT will provide frequent service, approximately every 10 minutes to/from Bothell and every 20 minutes to/from Woodinville.

This BRT project is estimated to reduce up to 29.7 million vehicle miles traveled (VMT) per year.

2. Project Justification, Need, or Purpose

This project will provide high capacity transit buses needed to deliver new, expanded BRT service in an increasingly congested area constrained by geographical limits and growth in the area. Daily traffic counts on SR 522 have increased by an average of 18% since 2010 (ranging from 10% to 30%, depending on the section of the route). Similarly, buses that currently operate along SR 522 have experienced ridership growth, with average passengers per weekday trip rising over 34% since 2010. King County Metro Route 372 which runs along SR 522 for much of its route, has seen daily ridership grow 60% between 2015 and 2017. ST Express Bus Route 522 carried over 5,200 passengers in this corridor in 2019. These routes also experience crowding, many trips are standing room only. The SR 522 BRT will provide efficient service and better travel times. With SR 522 BRT, ridership is expected to go from 5,000 to 9,000 daily riders.

BRT service with three new park and rides (for a total of 900 new spaces) supports higher transit use by commuters, even in low-density areas which traditionally have lower rates of transit ridership. This is particularly true of residents priced out of homes in closer proximity to the urban core, living in areas where transit is less accessible.

The BRT system will be designed for fast arrivals and departures, with features such as off-board fare payment and multiple-door entry and exit. Transit priority improvements such as new business access and transit lanes, bus queue bypasses and transit signal priority will help riders avoid traffic congestion and enjoy more frequent and reliable service. Buses will be scheduled to arrive every ten minutes in Shoreline, Lake Forest Park, Kenmore and Bothell, and every 20 minutes in Woodinville.

The 522 BRT project is expected to reduce over 29 million VMT per year.

This project is an important investment in transit because it provides "clean" battery electric buses (BEBs) needed to deliver new high capacity transit service. The BEBs are also one of the key approaches for ST to reach its Greenhouse Gas (GHG) and pollution reduction goals. ST has committed to a 10% reduction in GHG emissions by 2024 and zero carbon for facilities and fleet operations by 2050. Furthermore, the BEBs:

- Produce no tailpipe emissions, virtually eliminating GHG and PM2.5 emissions when compared to conventional diesel or diesel hybrid (DH) buses.
- Reduce GHG by nearly 43% and PM2.5 by 44% when compared to DH buses.
- Are quieter and a smoother ride for ST passengers. Noise pollution issues have been of particular concern for stakeholders along the 522 portion of ST's BRT project.
- Greatly benefit the residential and commercial dense 522 corridor from the reduced emissions
- May lower operating costs over time, since maintenance costs may be less costly.
- Are suited for Central Puget Sound, as our region's high percentage of hydro-power and renewable sources means that electricity is nearly zero carbon; BEBs will have little to no point source emissions from charging locations in addition to no tailpipe emissions

The BEBs will reduce diesel fuel consumed by 83,000 gal/per yr and energy consumption (fuel and charging) reduced by 1,701 MMBtu's per yr - a 10.7% decrease. (Source: EPA's Diesel Emissions Quantify tool)

Project Location

1. Project Location

NE 145th/SR 522

2. Please identify the county(ies) in which the project is located. (Select all that

apply.)

King

3. **Crossroad/landmark nearest the beginning of the project**
Shoreline South/NE 145th
4. **Crossroad/landmark nearest the end of the project**
SR 522 @ I-405
5. **Map and project graphics**
!All_Maps_ST_522_BRT_FTA_Comp.pdf

Plan Consistency

1. **Is the project specifically identified in a local comprehensive plan?**

Yes

2. **If yes, please indicate the (1) plan name, (2) relevant section(s), and (3) page number where it can be found.**

Regional Plans:

This project is specifically identified in Puget Sound Regional Council's Regional Transportation Plan Project ID 5359. This project included in the regional TIP, RTA103, that can be easily amended to include funds for this project should they be awarded.

Local Plans:

>>Bothell's 2015 Comprehensive Plan supports the SR 522 BRT program on pTR-6 & TR-25. Also goals TR-A37 (pTR-40) and TR-A45 (pTR-41) cite support for transit, including BRT, as a goal. <http://www.ci.bothell.wa.us/DocumentCenter/View/441/2015-Adopted-Plan-Version-PDF>

>>City of Shoreline's Transportation Plan, the 145th St Station Subarea Plan p3-22, includes the BRT service. P7-5 calls for coordinating transportation improvements with ST. Similarly, p7-12 notes transit signal priority as an important recommendation to implement from the City's recent planning study. P7-13 also calls for improvements such as bus bulbs, queue jumps and other features for thoroughfares connecting to the light rail station.

<http://www.shorelinewa.gov/home/showdocument?id=31241> In Shoreline's Comprehensive Plan's Transportation element Goal T VIII is coordinating development and integration of their transportation system with local and regional partners. Goal T IX supports increased transit coverage and service (p2). Similarly, Policy T36 supports more high-capacity transit in Shoreline while Goal T38 says the city will work with Sound Transit and other transit agencies, "to develop a bus service plan that connects residents to light rail stations, high-capacity transit corridors, and park and ride lots throughout the city" (p6). Policy T50 prioritizes projects providing BRT access (p8). <http://www.shorelinewa.gov/home/showdocument?id=12684>

>>Policies in Kenmore's Comprehensive Plan support ST's BRT plan.

-LU-5.2.7 (p4B-13) supports shelters & benches at transit stops downtown and SR-522

-T-2.2 (p6-32) calls for coordination w/ transit agencies to improve the network

-T-2.2.1.g (6-32) supports transit connections to urban centers

-T-4.1.3 (p6-36) calls for maintaining HOV lanes for transit & business access for long term transit usage and improvements

-T-4.1.4 (6-36) calls for support for high-capacity transit service on SR 522.

<http://www.cityofkenmore.com/sites/default/files/2015%20Comprehensive%20Plan%20For%20Website.pdf>

>>Lake Forest Park's comprehensive plan Policy T-1.4 prioritizes support for BRT (p87), and T-6.2

(p93) calls for coordination with transit agencies

[https://www.cityofflp.com/DocumentCenter/View/2578/LFP_Comprehensive-Plan_2015_Vol1?](https://www.cityofflp.com/DocumentCenter/View/2578/LFP_Comprehensive-Plan_2015_Vol1?bidId=)

3. **If no, please describe how the project is consistent with the applicable local comprehensive plan, including specific local policies and provisions the project supports. In addition, please describe how the project is consistent with a transit agency plan or state plan, if applicable.**

N/A

Federal Functional Classification

1. **Functional class name**

00 Not applicable (transit, enhancements, Etc.)

Support for Centers

1. **Describe the relationship of the project to the center(s) it is intended to support. Identify the designated regional growth or manufacturing/industrial center(s) and whether or not the project is located within the center or along a corridor connecting to the center(s).**

The SR 522/NE 145th Bus Rapid Transit serves the cities on both sides of Lake Washington along the BRT corridor, including Shoreline, Lake Forest Park, Kenmore, Bothell, and Woodinville. Shoreline's designated Town Center is just north of the 145th station. The project also directly serves the UW/Bothell campus. The project will directly connect to ST's I-405 BRT project in Bothell, providing service to Bothell Canyon Park, a designated Regional Growth Center, and offer direct connections to Lynnwood Link light rail at 145th in Shoreline. Lynnwood Link directly serves Lynnwood City Center and Seattle Northgate designated Regional Growth Centers.

Criteria: Benefit to Center

1. Describe how the project will benefit or support the existing and planned housing and employment development of a center or centers. Does it support multiple centers?

Connecting the cities of Seattle, Shoreline, Lake Forest Park, Kenmore, Bothell, and Woodinville with new fast, frequent and reliable high capacity transit service (every 10 minutes between Shoreline and Bothell), the 522/NE 145th BRT project will operate along a segment of the Metropolitan Transportation System having over 465,000 households and 832,000 jobs (PSRC LUV Data, 2040). The project directly benefits local centers and activity areas in these cities, including UW Bothell/Cascadia College (over 7,000 students and over 5,500 jobs), supporting locally and regionally adopted development plans and zoning regulations; improving access to transit for businesses and residences; and minimizing traffic congestion and adverse environmental impacts on neighborhoods.

VISION 2040 calls for Core Cities, including Bothell, to accommodate a significant share of future population growth for the region. By 2040, the 14 Core Cities will accommodate 22 percent of the region's population growth and 29 percent of its employment growth.

VISION 2040 also foresees an expanding role for Large Cities, including Kenmore and Woodinville, to accommodate growth. By 2040, the 18 Large Cities will accommodate 14 percent of the region's population growth and 12 percent of its employment growth. The cities of Woodinville (4.9%) and Bothell (3.3%) were among the region's top ten cities for the highest population growth as a percentage from 2018-2019 (US Census Data).

Additional People and Housing Served by the Project (source: PSRC LUV data, 2015 and 2040 data)

- Woodinville - 3,523 more households and 6,323 more people by 2040
- Bothell - 3,503 more households and 5,193 more people by 2040
- Kenmore-3,921 more households and 7,258 more people by 2040
- Lake Forest Park - 1,072 more households and 1, 473 more people by 2040
- Shoreline - 5,597 more households and 9,077 more people by 2040

Additional Jobs Served by the Project:

- Woodinville - 8,846 more jobs by 2040
- Bothell - 4,553 more jobs by 2040
- Kenmore-5,100 more jobs by 2040
- Lake Forest Park - 262 more jobs by 2040
- Shoreline - 6,462 more people by 2040

To support forecasted growth in people, housing and employment, these cities have established goals of creating communities having a variety of transportation options, providing better local and regional connectivity. Access to frequent, fast and reliable high-capacity transit service is seen as a key attractant for achieving mutual visions for creating vibrant cities where businesses want to locate and people want to live in or visit.

The project supports development/redevelopment plans and activities of the cities and locally designated centers along the corridor.

>>Bothell BRT Stations: There will be up to five BRT stations in Bothell. Locations were selected based on TOD proximity; connections to CT and KCM service; connections to downtown Bothell and neighborhoods, and the UW Bothell Campus Transit Center. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience. From the Transit Hub at the I-405/SR 522 interchange, riders will be able to make connections to I-405 BRT.

>>Bothell Comprehensive Plan <https://bit.ly/2Wyr9Pw>

Bothell's comprehensive plan includes goals, policies and actions emphasizing the city's role in enabling and supporting high quality transit services to meet the needs of future growth, along with policies to support TOD.

The city updated its housing strategy in 2017 to address a growing need for a wide range of housing types and the challenges of dynamic increases in populations and costs for current and future residents and employees. The city considers it timely to advance housing needs in tandem with regional transit investments. This includes leveraging transit investments to maximize the potential for co-locating housing and transit facilities, which in turn promotes the sustainability envisioned in the comprehensive plan.

>>Kenmore BRT Stations: There will be up to four BRT stations in Kenmore. Locations were selected based on connections to KCM service and Kenmore's town center and neighborhoods. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience.

>>Kenmore's Comprehensive Plan <https://bit.ly/3cmiAfw>

Kenmore's comprehensive plan land use element includes a vision to convert the Urban Corridor District located along SR 522 from a commercial strip corridor to an area of primarily office and multifamily development, taking advantage of lake views and proximity to transit. The 522/145th BRT project will support Kenmore's effort to establish their downtown as a transit hub allowing for intra-community and regional transportation connections.

In order to meet adopted transportation goals, the plan supports expansion of local and regional transit service that provides linkages to regional destinations, especially routes to surrounding communities and employment centers. The SR 522/NE 145th BRT project will provide fast, frequent and reliable bus-based transit service from communities like Kenmore to the new Shoreline South/145th light rail station. Riders will also be able to connect to and transfer between the SR 522/NE 145th BRT, I-405 BRT, Link light rail and other transit service provided by Sound Transit, Community Transit and King County Metro.

>>Lake Forest Park BRT Stations: There will be up to three BRT stations in Lake Forest Park. Locations were selected based on connections to neighborhoods and KCM services. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience.

>>Lake Forest Park Comprehensive Plan <https://bit.ly/2XziCw7>

Ensuring Lake Forest Park has a sufficient quantity and variety of housing types to meet projected growth and needs of the community is a goal of the plan's Housing Element. Through Housing Policy H-1.6 the city encourages opportunities for mixed use development in areas where a mix of commercial and residential uses would promote desired character and economic vitality, including transit-oriented development along transit corridors. This project has the potential to spur mixed use development along the 522 corridor and support the city's efforts to expand and diversify housing types.

Working with transit agencies to provide transit service that meets the community's needs is a goal of the plan. The project is consistent with Transportation Policy T-6.4 which supports Sound Transit's Long Range Plan for high capacity transit through Lake Forest Park from Bothell to Northgate via SR 522 and to downtown Seattle.

>>Shoreline BRT Stations: There will be three BRT stations in Shoreline (two of those straddle the Shoreline/Seattle city boundary). Locations were selected based on regional and neighborhood connections; connections to Link light rail and KCM service, and up-zone proximity. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience. From the Shoreline South/145th Station riders will be able to make connections to Link light rail.

>>Shoreline Comprehensive Plan <https://bit.ly/2V6q54i>

The City's policy basis for planning vibrant, equitable communities around high-capacity transit in Shoreline began with the Council adopting framework goals for the process, which were later incorporated into the major update of the Comprehensive Plan in 2012. The City adopted specific land use policies (LU23 through LU46) for the light rail station area that call for the City's involvement in design of the station and extensive community engagement in planning of the station subarea.

The policies also call for allowing and encouraging uses in station subareas that will foster the creation of communities that are socially, environmentally, and economically sustainable. The policies encourage development of station areas as inclusive neighborhoods in Shoreline with connections to other transit systems, commercial nodes, and neighborhoods. As a result of this planning process, new policies specific for the 145th Street Station Subarea have been developed.

The following policies are proposed for the station subarea to support the redevelopment opportunities: "Connect the light rail station subarea with commercial districts along Aurora Avenue N and 15th Avenue, and at 5th Avenue and 165th Street." and "Identify priority nodes along 145th Street and others corridors in the subarea in which to target incentives for redevelopment that encourage catalyst projects and initial growth.

>>Sound Transit's TOD Program

Sound Transit will be able to support city-led housing development efforts through its' TOD program. In 2012, the board adopted a TOD policy that provides goals and guidance the agency may use to evaluate, facilitate and implement development as it builds the regional transit system. The board is interested in supporting land use change or other economic development that improves quality of life, allows achievement of comprehensive and regional plans and maximizes ridership.

ST3 directed the agency to implement a regional equitable TOD strategy to create vibrant,

diverse, mixed-use and mixed-income communities adjacent to Sound Transit stations. In April 2018, the Board adopted the new Equitable TOD policy.

Transit construction requires Sound Transit to purchase land for building stations, installing track, and for staging. When construction is finished and the project opens, the agency no longer needs some of this land. In May 2018, the Sound Transit Board officially recommitted the agency to facilitate TOD on this surplus property.

The Board's TOD policy includes a priority to offer surplus property for the development of affordable housing. Washington's State Statute RCW 81.112.350 requires Sound Transit to offer 80 percent of its surplus property that is suitable for housing to qualified entities to develop affordable to families at 80 percent of area median income or less. So far, over 1,300 housing units have been built or are planned for Sound Transit surplus property, with over 80 percent of them affordable to those earning 80 percent of area median income or below.

- Sound Transit is contributing \$20 million into a revolving loan fund to create affordable housing near high-capacity transit stations. In 2018, the Sound Transit Board confirmed five goals for the revolving loan fund and a process approach for implementation. The process and approach includes the development of a business plan for how Sound Transit can best deploy its \$20 million contribution to a Revolving Loan Fund to support the development of affordable housing in the Sound Transit district. Source: Sound Transit's TOD program, see <https://bit.ly/2GO7vrZ>

2. Describe how the project will support the development or redevelopment plans and activities (objectives and aims) of a center or centers.

The SR 522 BRT line passes through Lake Forest Park Town Center, Kenmore's central business district, and Bothell's city center. The BRT project supports development/redevelopment plans and activities of the cities along the corridor:

>>Bothell BRT Stations: There will be up to five BRT stations in Bothell. Locations were selected based on TOD proximity; connections to CT and KCM service; connections to downtown Bothell and neighborhoods, and the UW Bothell Campus Transit Center. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience. From the UW Bothell/Cascadia College Station riders will be able to make connections to the transit HUB at the I-405/SR 522 interchange in Bothell. UW Bothell's full-time student population has increased 71 percent to nearly 5, 000, while Cascadia's jumped 27.5 percent to 2,666.

>>Bothell Comprehensive Plan <https://bit.ly/2Wyr9Pw>

Bothell's comprehensive plan includes goals, policies and actions emphasizing the city's role in enabling and supporting high quality transit services to meet the needs of future growth, along with policies to support TOD.

The city updated its housing strategy in 2017 to address a growing need for a wide range of housing types and the challenges of dynamic increases in populations and costs for current and future residents and employees. The city considers it timely to advance housing needs in tandem with regional transit investments. This includes leveraging transit investments to maximize the potential for co-locating housing and transit facilities, which in turn promotes the sustainability envisioned in the comprehensive plan.

Bothell's Canyon Park is a regional employment center located near I-405/522 BRT transit HUB. BRT service will support the 300-acre Canyon Park Business Center and several large light manufacturing businesses. Economic policies include pursuing transportation system improvements to ensure efficient transport of goods and convenient access for employees, students and customers to and from places of business. Such system improvements should include transit facilities and services.

>>Kenmore BRT Stations: There will be four BRT stations in Kenmore. Locations were selected based on connections to KCM service and Kenmore's town center and neighborhoods. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience.

>>Kenmore's Comprehensive Plan <https://bit.ly/3cmiAfw>

Kenmore's comprehensive plan's land use element includes a vision to convert the Urban Corridor District located along SR 522 from a commercial strip corridor to an area of primarily office and multifamily development, taking advantage of lake views and proximity to transit. The 522/145th BRT project will support Kenmore's effort to establish their downtown as a transit hub allowing for intra-community and regional transportation connections.

In order to meet adopted transportation goals, the plan supports expansion of local and regional transit service that provides linkages to regional destinations, especially route to surrounding communities and employment centers. The SR 522/NE 145th BRT project will provide fast, frequent and reliable bus-based transit service from communities like Kenmore to the new Shoreline South/145th light rail station. Riders will also be able to connect to and transfer between the SR 522/NE 145th BRT, I-405 BRT, Link light rail and other transit service provided by Sound Transit, Community Transit and King County Metro.

>>Lake Forest Park BRT Stations: There will be two BRT stations in Lake Forest Park. Locations were selected based on connections to neighborhoods and KCM services. The

shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience.

>>Lake Forest Park Comprehensive Plan <https://bit.ly/2XziCw7>

Ensuring Lake Forest Park has a sufficient quantity and variety of housing types to meet projected growth and needs of the community is a goal of the plan's Housing Element. Through Housing Policy H-1.6 the city encourages opportunities for mixed use development in areas where a mix of commercial and residential uses would promote desired character and economic vitality, including transit-oriented development along transit corridors. This project has the potential to spur mixed use development along the 522 corridor and support the city's efforts to expand and diversify housing types.

Working with transit agencies to provide transit service that meets the community's needs is a goal of the plan. The project is consistent with Transportation Policy T-6.4 which supports Sound Transit's Long Range Plan for high capacity transit through Lake Forest Park from Bothell to Northgate via SR 522 and to downtown Seattle.

>>Shoreline BRT Stations: There will be three BRT stations in Shoreline (two of those straddle the Shoreline/Seattle city boundary). Locations were selected based on regional and neighborhood connections; connections to Link light rail and KCM service, and up-zone proximity. The shared, double-length stations (so two buses can unload/load simultaneously) are designed to accommodate substantial Metro service, along with Stride BRT, and for the best rider experience. From the Shoreline South/145th Station riders will be able to make connections to Link light rail.

>>Shoreline Comprehensive Plan <https://bit.ly/2V6q54i>

The City's policy basis for planning vibrant, equitable communities around high-capacity transit in Shoreline began with the Council adopting framework goals for the process, which were later incorporated into the major update of the Comprehensive Plan in 2012. The City adopted specific land use policies (LU23 through LU46) for the light rail station area that call for the City's involvement in design of the station and extensive community engagement in planning of the station subarea.

The policies also call for allowing and encouraging uses in station subareas that will foster the creation of communities that are socially, environmentally, and economically sustainable. The policies encourage development of station areas as inclusive neighborhoods in Shoreline with connections to other transit systems, commercial nodes, and neighborhoods. As a result of this planning process, new policies specific for the 145th Street Station Subarea have been developed.

The following policies are proposed for the station subarea to support the redevelopment opportunities: "Connect the light rail station subarea with commercial districts along Aurora Avenue N and 15th Avenue, and at 5th Avenue and 165th Street." and "Identify priority nodes along 145th Street and others corridors in the subarea in which to target incentives for redevelopment that encourage catalyst projects and initial growth.

Support for TOD - The Kenmore City Council created a Transit-Oriented Development (TOD) District to reinforce pedestrian-oriented mixed-use development at intensities that support high capacity transit along SR 522.

For the TOD district, Kenmore's city council approved a minimum density of 60 dwelling units per acre and a maximum of 150 dwelling units per acre. The plan also requires developers to build affordable housing when densities are greater than 120 dwelling units per acre. The city also reduced parking minimums and maximums for the TOD district. For housing units, at least one parking space is required per unit, while the parking minimums for commercial and retail buildings were lowered by 75%. The city used the current minimum parking requirements set for outside the TOD district as the maximum parking rate developers can use inside the TOD district. In recent years, Kenmore has made investments in non-motorized improvements and created a year-round Town Square surrounded by apartments. Source: Seattle Transit Blog "Pushing to be Included in ST3" Posted on March 26, 2018 <https://seattletransitblog.com/2018/03/26/pushing-included-st3/>

>>Sound Transit's TOD Program

As stated earlier, Sound Transit will be able to support city-led housing development efforts through its' TOD program.

Sound Transit has adopted a regional equitable TOD strategy to create vibrant, diverse, mixed-use and mixed-income communities adjacent to Sound Transit stations.

The Sound Transit Equitable TOD policy is used to facilitate TOD on Sound Transit surplus property.

The Board's TOD policy includes a priority to offer surplus property for the development of affordable housing. Sound Transit offers 80 percent of its surplus property that is suitable for housing to qualified entities to develop affordable to families at 80 percent of area median income or less. So far, over 1,300 housing units have been built or are planned for Sound Transit surplus property, with over 80 percent of them affordable to those earning 80 percent of area median income or below.

• Sound Transit also has a revolving loan fund to create affordable housing near high-capacity transit stations. Source: Sound Transit's TOD program, see <https://bit.ly/2GO7vrZ>

3. **Describe how the project improves access to major destinations within the center, including enhanced opportunities for active transportation that can provide public health benefits through the following relevant areas: walkability, public transit access, public transit speed and reliability, bicycle mobility and facilities, streetscape improvements, etc.**

The 522 BRT project will provide fast, frequent and reliable transit service between the north Lake Washington communities and the new Shoreline South/145th Link light rail station in 2024. Riders will be able to connect to and transfer to Link light rail, I-405 BRT, and other transit service provided by Sound Transit, Community Transit and King County Metro. SR 522/NE 145th BRT will run along eight miles of NE 145th Street and SR 522 from the future Link light rail station at I-5 and NE 145th Street in Shoreline to Bothell. Service will run every 10 minutes, all day between Shoreline and Bothell; service continuing to Woodinville will run every 20 minutes. Riders will be able to connect to Link light rail at the Shoreline South/NE 145th station, and to I-405 BRT in Bothell.

When Lynnwood Link opens in 2024, riders will be able to access Regional Designated Centers such as Lynnwood, Northgate, University Community, Capitol Hill, and Seattle Downtown. Link operates 20 hours per day, with trains arriving as often as every four minutes in the peak period, with train speeds of up to 55 mph and service expected to operate 95% or more on time. By 2021, Sound Transit will expand light rail to Seattle's U District, Roosevelt and Northgate neighborhoods. In 2023, trains will reach Mercer Island, Bellevue and Overlake/Redmond. Further extensions of light rail to Shoreline, Mountlake Terrace, Lynnwood, Kent/Des Moines, Federal Way and downtown Redmond open in 2024.

Connections to the I-405 BRT in Bothell will take riders directly to Canyon Park and Lynnwood to the north and Kirkland, Bellevue, Renton, Tukwila and Burien to the south.

Regular physical activity can reduce risk factors for several chronic conditions, including heart disease, obesity, cancer, anxiety and depression. Public transit can increase physical activity, since it is usually paired with either walking or bicycling to reach a final destination. A national study shows that public transit users walk about three times as much as non-transit users and are more likely to meet guidelines for daily physical activity. One study found that nearly a third of transit riders gets the recommended 30 minutes or more of daily physical activity from walking to and from transit (ST3, Appendix D, pg. D-3).

Users of the 522/NE 145th BRT project will be able to access easily active transportation on several regionally significant trails:

>>Sammamish River Trail runs through Bothell and Woodinville. It's a 10.1 mile trail along the Sammamish River from Bothell to Marymoor Park in Redmond as part of the "Locks to Lakes Corridor."

The SRT is paved its entire length and is one of King County's most popular regional trails. Bicyclists, joggers, skaters, walkers, and others enjoy the trail as a regional recreation resource, but is also used extensively by commuters as a non-motorized corridor between suburban cities and Seattle. Starting at its intersection with the Burke-Gilman Trail near Blyth Park in the City of Bothell, the SRT continues east and south through Woodinville and Redmond.

>>The Interurban Trail runs through Shoreline with almost four miles of paved surface for walking, jogging, and biking. Twenty-four miles in length and mostly separated from motorized traffic, the trail can be easily accessed in Shoreline at Linden Ave, approximately one mile from the 522/NE 145th station. The city of Shoreline is planning for walk and bike access to the future light rail station at NE 145th.

Per PSRC's Active Transportation Plan, a 5% increase in neighborhood walkability is associated with 6.5% fewer vehicle miles traveled per capita and people who walk, bike and take transit are more likely to get needed physical activity daily versus those who drive.

Per adopted Sound Transit policy, each BRT station will include pedestrian and bicycle safety and access improvements, providing opportunities for active transportation. Station elements that will support active transportation include safe and well-lit waiting areas, pedestrian-friendly aesthetics, bicycle lockers and racks. These amenities are important for removing barriers for potential transit riders and ensuring the safety of existing riders as they traverse the "last mile" to their destination.

The ST3 Station Access Allowance program (funded at \$100M 2014\$) is available for additional access improvements outside the footprint of ST3 light rail and BRT stations. These funds are for improvements that will create safe, direct walking and bicycling routes to surrounding neighborhoods, businesses and community gathering places. This funding will help catalyze investments around BRT station areas.

4. **Describe how the project provides a range of travel modes to users traveling to centers, or if it provides a missing mode.**

The SR 522/NE 145th BRT will benefit users traveling between I-405 & I-5 corridors by providing reliable and efficient access to a range of travel modes throughout the region.

LIGHT RAIL: From the Shoreline South/145th Station, BRT riders will be able to access Link light rail. Link operates 20 hours per day, with trains arriving as often as every four minutes in

the peak period, with train speeds of up to 55 mph and service expected to operate 95% or more on time. By 2021, Sound Transit will expand light rail to Seattle's U District, Roosevelt and Northgate neighborhoods. In 2023 trains will reach Mercer Island, Bellevue and Overlake/Redmond. Further extensions of light rail to Shoreline, Mountlake Terrace, Lynnwood, Kent/Des Moines, Federal Way and downtown Redmond open in 2024. When the I-405 BRT, Burien to Bellevue Section project starts revenue service, Link will be serving 10 regional growth centers.

P&R's: Kenmore has 603 parking spaces; Bothell has 220 parking spaces; and Woodinville has 459 parking spaces. The majority of P&R facilities in the 522 corridor are at capacity and usually full by 9am. The SR 522/NE 145th Stride BRT project includes approximately 900 additional parking stalls in three new parking locations. Other project elements associated with the project that benefit P&R users include signage, lighting, shelters, benches and real-time bus arrival.

LOCAL TRANSIT: Along with the SR 522 BRT, King County Metro and Community Transit buses will also benefit from the business access and transit (BAT) lanes, bus queue bypasses, transit signal priority improvements and P&R improvements along the corridor.

VANPOOL and CARPOOL: BRT stations will serve park and rides, provide transit connections and at the park and rides there is access to drop-off and pick-up areas. A growing percentage of ST riders access the stations by bus or carpooling. Carpool parking permits are available free of charge to groups of two or more transit riders who regularly drive together to catch the bus or train. Permits give you access to priority reserved parking areas on weekdays when arriving with two or more transit riders in a vehicle during morning rush hours. Paid SOV parking prices vary by location, based on market rates (ranging from \$45-120 per month) for parking in the surrounding areas.

As of March 2020, Sound Transit has issued 844 SOV permits at 13 facilities (includes 15 ORCA LIFT rate SOV permits) and 349 carpool permits at 14 facilities. In order to have a valid Sound Transit parking permit, the user must use transit an average of three times a week or 12 times a month to be eligible. Sound Transit verifies transit use through ORCA fare card data and checks for regular usage monthly to renew the permits. The carpool parking permits prioritize parking for carpools over SOVs. In order to have a valid Sound Transit parking permit, the user must use transit an average of three times a week or 12 times a month to be eligible. ST verifies transit use through ORCA fare card data and check for regular usage monthly to renew the permits.

BICYCLING and WALKING: Per the System Access Policy (Board Resolution No. R2013-03), when designing transit facilities and services, Sound Transit will maximize pedestrian, bicycle and transit access. Depending on station location, racks, lockers and/or cages may be available. BRT buses will accommodate bicycles. Pedestrian amenities at BRT stations will include sidewalks, crosswalks, benches, lighting, and signage. In 2019 Sound Transit launched on-demand bicycle e-lockers program. On-demand bicycle parking provides users with a smart card that unlocks any available on-demand locker or bike cage on a first-come, first-served basis.

The Sound Transit 3 (ST3) System Plan included a \$100M System Access Program, which included the System Access Fund that is "allocated equally among Sound Transit's five subareas to fund such projects as safe sidewalks and protected bike lanes, shared use paths, improved bus-rail integration, and new pick-up and drop-off areas that provide convenient access so that more people can use Sound Transit services." In November 2018, the Executive Committee of the ST Board directed staff to conduct an initial call for projects in 2019 that would be open to local governments and would make up to \$10M per subarea available between 2019 and 2025. In the first round of funding, projects in the SR 522/NE 145th corridor received a total of \$6,125,000 of funding including Shoreline at \$3.7M for the 148th Street Nonmotorized Bridge; Bothell at \$825K for the Downtown Nonmotorized Access Improvements; Kenmore - Juanita Drive NE Pedestrian and Bicycle Safety Improvements - \$1.5M - bike improvements on 68th/Juanita south of SR 522, to improve access to 522 BRT's 68th Ave Station; and King County Metro at \$100K to expand secured bicycle parking improvements at transit facilities within the North King Subarea.

SOV DRIVERS: The SR 522 BRT project includes roadway improvements, including BAT lanes, intersection and signal improvements.

National data indicate that a \$10 million investment in public transit infrastructure saves local highway drivers and transit users \$15 million through reduced fuel and lost productivity costs. (ST3 Plan, Appendix D, page D-4). For electric vehicle drivers, ST P&Rs will have charging stations.

FREIGHT: The 522/NE 145th project corridor is also a designated T-2 freight route supporting 4-10 million tons per year (source PSRC resource guide). The BRT project will include BAT lanes, transit priority signals and queue jumps to reduce delays for traffic including freight. The addition of BAT lanes in the corridor helps transit speed and reliability while allowing vital freight and goods movement.

5. Describe how the project will benefit a variety of users, including commuters, residents, and commercial users).

The 522/NE 145th BRT project benefits a variety of user groups.

COMMUTERS:

- SR 522 is a major commuter route for people traveling from the north and east side of Lake Washington into Seattle and onto I-5. Existing bus service is overcrowded and the source of numerous customer complaints. 522/145th BRT will be a faster, more reliable transit trip saving commuters 12-17 minutes per trip. BRT service during commute times is every 10 minutes between Shoreline and Bothell.
- Over 50% of Sound Transit's boardings and fare revenue is from ORCA Business Accounts. These are programs where employers provide ORCA cards to their employees. It is anticipated that over 90% of Stride passengers will pay their fare using an ORCA card, speeding up the boarding process.

RESIDENTS:

- BRT service will operate frequently even outside of commute times including 19 hours of service on weekdays and Saturdays and 17 hours of service on Sundays. Service will be every 10 minutes from 145th to the transit HUB at the I-405/SR 522 interchange in Bothell and every 20 minutes from Bothell to Woodinville.
- BRT service will benefit residents by providing more efficient and reliable access to existing and future jobs, community amenities, and a diverse range of opportunities throughout the region. The cities of Woodinville (4.9%) and Bothell (3.3%) were among the region's top ten cities for the highest population growth as a percentage from 2018-2019. By 2040, the Cities' combined population is anticipated to grow by approximately 17% while employment is projected to increase over 20%. (Source: comparing 2015 to 2040, PSRC LUV data).

STUDENTS and FACULTY: The 522/NE145th BRT project directly serves University of Washington Bothell/Cascadia campus (over 7,000 students and over 5,500 FTEs).

COMMERCIAL USERS: The BRT corridor is also a designated T-2 freight route supporting 4-10 million tons per year (source: PSRC resource guide). The BRT project will include BAT lanes, transit priority signals and queue jumps to reduce delays for traffic including freight. The addition of BAT lanes in the corridor helps transit speed and reliability while allowing vital freight and goods movement.

Recreational trail users- SR 522 BRT is parallel to the Interurban Trail, Sammamish River Trail and connects to other regional trails.

Shoppers - the SR 522 BRT supports numerous commercial shopping areas along the corridor such the Lake Forest Park Town Center (including a farmer's market) and the downtown Bothell commercial area.

SeaTac Airport users - Riders can use the SR 522 BRT and connect at the Shoreline South/145th Link station to travel to SeaTac Airport. During congested times, taking the SR522 BRT and Link to the Airport will be faster and much more economical than taking a taxi/Lyft/Uber or driving and parking at SeaTac Airport.

6. Describe how the project will benefit those groups identified in the President's Order for Environmental Justice, seniors, people with disabilities, those located in highly impacted communities, and/or areas experiencing high levels of unemployment or chronic underemployment.

Sound Transit is committed to delivering projects that support an equitable transportation system.

The 522/145th BRT Project will bring benefits and positive impacts to communities throughout the project area. Sound Transit will analyze project impacts and evaluate whether the project will result in adverse effects on traditionally underrepresented populations, including minority, low income, and limited English-speaking populations (LEP). Current demographics in the 522/NE145th BRT corridor include:

- Approximately 86,000 people live in 35,000 households within the six jurisdictions served by the project.
- Approximately 73% of this population is Caucasian; 12% Asian; 8% Hispanic; 5% Black; 6% reporting two or more races; 3% Other; 1% American Indian, and 1% Pacific Islander. Across the six jurisdictions, 5% of households are linguistically isolated, where no one 14 and over speaks English "very well" or speaks English only.
- Up to 17% of households have incomes of less than \$50,000. Sound Transit provides a reduced ORCA LIFT transit fare for people with low incomes. The eligibility threshold for a person to qualify for the ORCA LIFT low-income fare is at or below 200% of the Federal Poverty Guidelines (\$52,400 for a family of four). With the ORCA LIFT card, a person can travel anywhere in the region on Sound Transit buses and light rail for \$1.50.

LEP POPULATIONS As part of its commitment to inclusive outreach throughout the BRT project area, Sound Transit considers translation services in communities where over 5 percent of residents report speaking a Language other than English.

If there are disproportionately high impacts to traditionally underrepresented populations, including LEPs, Sound Transit looks for ways to mitigate those impacts and/or offset them with community benefits. Sound Transit is committed to reaching out to historically underserved communities near the project corridor to let them know about the project, answer any questions, and offer support as needed as the project progresses. ST strives to engage the public and underserved populations throughout the community engagement process as Sound Transit works to deliver this project, including during the conceptual engineering and environmental review phase and later work to develop detailed design. Source: 522/NE 145th BRT Community Engagement Guide

MINORITY and LOW-INCOME POPULATIONS:

Percent minority population for census tracts surrounding the BRT stations range from 15% in Woodinville to 44% in Shoreline. Many of the census tracts along the BRT corridor have percentage minority populations higher than the regional average of 35% (PSRC Trend 2018). Some minority households are also low-income and lack access to an automobile and/or do not have convenient access to transit. Low-income families face a higher burden when making transportation choices because they often pay a higher percentage of their monthly income on transportation costs.

Households in poverty for census tracts surrounding the BRT stations range from 6 to 14% in Shoreline to up to 10% in Bothell. Region-wide, the poverty rate is approximately 9.6% (2016). Three of the cities along the corridor are surrounded by census tracts exceeding the region-wide poverty rate. Census tracts around the Shoreline station areas also show low access to opportunities (PSRC Interactive Resource Map).

522/NE 145th BRT service will connect minority and low-income residents to jobs and other services and can reduce the burden of vehicle ownership. Nationally, public transit riders see annual savings of \$10,160 when switching a daily commute to taking public transportation (APTA Transit Savings Report June 2018). Sound Transit provides a fare discount to all riders who pay with ORCA LIFT cards. With the ORCA LIFT card, income-qualified riders can save up to 50 percent on every single trip.

Sources: PSRC Interactive Resource Map and 522/NE 145th BRT Community Engagement Guide

ELDERLY and DISABLED POPULATIONS:

Elderly populations in census tracts surrounding the BRT stations range from 12% in Shoreline to 20% in Kenmore. Nearly all of the cities along the corridor are surrounded by census tracts having elderly population percentages exceeding the region-wide total of 12.6 percent. By 2030, nearly one in five of the region's residents will be seniors, nearly double the share in 2000 (PSRC, Vision 2050 Presentation). Elderly people largely "age in place," in neighborhoods where daily activities require frequent car trips. Many of these older adults need affordable and accessible alternatives to driving. Without access to travel options, seniors face a reduced quality of life and possible economic hardship. A 2017 Transit Center report makes the case healthy aging hinges on better mass transportation, easing isolation and providing connections to medical care. For many seniors, transit is safer than driving.

Disabled populations in census tracts surrounding the BRT stations range from 7% in Woodinville to 15% in Shoreline. All of these cities, except Woodinville, have higher percentages of disabled populations than the region-wide percentage of 11.4% (PSRC Interactive Resource Map). Public transportation provides a vital link to more than 56 million Americans with disabilities ensuring they can remain actively involved in their communities, maintain productive roles in the economy, and have access to the full range of facilities and services needed to lead enjoyable and productive lives (Census 2010). Sound Transit makes every effort, to the maximum extent feasible, to ensure that a person with a disability has access to and benefits from its services. (Sources: PSRC Interactive Resource Map)

BRT service is an attractive and reliable travel option that will be easily accessed. Safe and well-lit station areas will have accessible sidewalks, curb ramps, and grade-level crossings. Buses will have floor-level boarding, easier fare payment, and other features that meet the needs of seniors, women, children, blind persons, those with low vision, and people who are deaf, deafened, or hard-of-hearing. BRT buses will be wheelchair accessible and designated seating for seniors and disabled riders is available. If other passengers are using these seats, the driver will politely ask them to move. People with disabilities and riders 65 and older also have access to a reduced rate using a Regional Reduced Fare Permit or the ORCA LIFT card.

7. Describe how the project will support the establishment of new jobs/businesses or the retention of existing jobs/businesses including those in the industry clusters identified in the adopted Regional Economic Strategy.

This project supports the Regional Economic Strategy, Amazing Place, including the following initiatives:

>> "Manage new roadway, light rail, transit, and ferry projects to meet or beat projected delivery dates and coordinate timely delivery of transportation improvements to the region." (pg. 38) Sound Transit employs a number of approaches to ensure adequate technical oversight of capital projects. Principle among them is the establishment, documentation and adherence to detailed plans and policies governing project delivery. These plans are updated to reflect advances in the state-of-knowledge and incorporate lessons learned from recently completed projects. The discipline that has helped Sound Transit deliver major projects such as University Link and Angle Lake extension on or ahead of schedule and on or below budget will ensure successful and timely delivery of the BRT project.

>> "Improve the links between housing and employment centers by delivering reliable transit connections that cut current commute times." (pg. 39). In addition to serving core cities along the corridor and the UW Bothell/Cascadia College Campus, the 522/NE 145th BRT project improves travel for transit riders, reducing trip times from 12-17 minutes per trip.

>> "Develop land use around transit stations that maximizes regional transit accessibility for a diverse and equitable mix of residents and businesses." Cities served by the BRT project have adopted transit oriented zoning around station areas such with Kenmore planning for a TOD project near the Kenmore P&R. ST has engaged a diverse group of stakeholders,

including a non-profit and private property owners, affordable housing funders, the city and KCM to identify and coordinate a development plan at the P&R.

>> “Improve the region’s transportation system - Residents and freight move freely through the region on a network of roads, rail, air, and marine highways, supported by investments to improve efficiency and reliability of all modes.” This project introduces high capacity transit service that will benefit commuters, freight movement, pedestrians, bicyclists and bus transit users. A national economic study found that every \$1 of public transit investment generates \$4 in economic returns when considering business sales, revenues and new private investment. (ST3 Plan, Appendix D, page D-5)

>> Supporting Jobs. Investment in transit supports the economy as a whole by bolstering the businesses that provide the goods and services needed to build transit infrastructure. According to the State of Washington Office of Financial Management, transit investment also flows through the construction workers and other personnel to local businesses where they spend their wages, supporting indirect jobs.

The BRT project connects to Link Light Rail service at the Shoreline South/NE 145th St Station as part of the Lynnwood Link Extension (2024) and extends light rail from Northgate (North Seattle) to Lynnwood City Center, an Opportunity Zone. With BRT connecting to Lynnwood Link, this will have a positive impact to the Opportunity Zone because it will provide high capacity transit connections serving south Snohomish County, the University of WA, downtown Seattle, East King County, SeaTac Airport and more. BRT riders can access more jobs and opportunities. The connection to Link light rail provides further connections to fast, reliable transit providing further support of economic redevelopment efforts within a designated Opportunity Zone in Lynnwood.

8. Does the project promote Commute Trip Reduction (CTR) opportunities?

This project can result in reduced dependence on single occupancy vehicles by providing a reliable 22 minute travel time between Bothell and Shoreline, mitigating traffic congestion, reducing air emissions and fuel consumption. It is estimated this project reduces annual VMT by 29.7M on the region’s roadways.

Sound Transit promotes CTR opportunities by offering a variety of free services to enhance business programs including participation at benefits and wellness fairs; electronic updates with service changes; and news, and helping worksite employees with relocation services and trip planning. In partnership with other transit agencies, Sound Transit provides ORCA cards and other transit passes through employers. The ORCA regional business account program allows Sound Transit and regional partners to offer local employers a program that includes a range of transit benefits.

Criteria: System Continuity/Long Term Benefit-Sustainability

1. Describe how this project provides a "logical segment" that serves a center, or allows users to access the system.

This project is a “logical segment” on the Metropolitan Transportation System, that will serve a combined total of over 950,000 residents and 830,000 jobs by 2040 (source: PSRC LUV data for 2040). The 522/NE 145th BRT project will directly link the Cities of Woodinville, Bothell, including UW Bothell Campus, Kenmore, Lake Forest Park, Shoreline and Seattle, supporting locally and regionally adopted development plans and zoning regulations; improving access to transit for businesses and residences; and minimizing traffic congestion and adverse environmental impacts on neighborhoods.

The SR 522 BRT is a logical segment connecting the cities of Shoreline, Lake Forest Park, Kenmore, Bothell, and Woodinville to regional growth centers. The SR 522 BRT provides fast, frequent and reliable service - seamlessly connecting to light rail service (every 4-6 minutes) and I-405 BRT service every 10 minutes.

2. Describe how the project fills in a missing link or removes barriers to a center (e.g. congestion, inadequate transit service/facilities.). Describe how this project will relieve pressure or remove a bottleneck on the Metropolitan Transportation System and how this will positively impact overall system performance.

This project fills a missing link by providing a new mode of transportation on the SR 522 corridor - Bus Rapid Transit.

The BRT project removes barriers by providing new BRT service, saving riders 12-17 minutes over current transit travel times in the corridor. Drivers reluctant to travel via transit using less reliable local and express bus service will shift to BRT because of its reliability, speed and competitive travel times vis-a-vis driving and connections to Link light rail at NE 145th in Shoreline and connections to I-405 BRT in Bothell.

This project will include transit priority spot treatments to facilitate BRT movement through corridor bottlenecks. On SR 522 the majority of the corridor through Lake Forest Park, Kenmore and Bothell will feature Business Access Transit (BAT) lanes, with transit-supportive enhancements on arterials from downtown Bothell to UW Bothell. The BAT lanes fill existing “gaps” along SR 522 between NE 145th Street and 96th Avenue NE in Bothell, and add a westbound BAT lane between 98th and 96th Avenue NE. Other transit service, such as King County Metro and Community Transit routes will also benefit from these improvements.

Improvements to the SR 522 corridor also help the region’s transportation system. With few

ways to travel across Lake Washington, improvements to the SR 522 corridor help relieve pressure on the 520 bridge and the I-90 Bridge. The SR 522 BRT also relieves pressure on the regional P&R system by providing 900 new P&R stalls and relieves overcrowding on existing buses by providing additional bus service.

3. Describe how this project addresses safety and security.

The 522/NE 145th BRT project addresses safety for BRT riders, pedestrians, bicyclists and drivers along SR 522 because it will include:

- CCTV security cameras and driver emergency buttons on the buses
- Many safety features at the stations including platform and pathway lighting.
- Improvements to pedestrian and bicycle safety by constructing new non-motorized facilities to access the stations and intersection improvements for safe pedestrian crossings.
- Grade separation of modes: inline stations and business access and transit lanes separate buses from general-purpose traffic and remove chokepoints and weaving traffic movements, which will improve safety by reducing side and rear collisions. Grade separation improves safety.
- Seismic Safety: BRT infrastructure will be designed for seismic safety to withstand earthquakes.
- Security: A top priority of Sound Transit is the safety of customers and drivers. All Sound Transit stations are patrolled by security and transit police. Sound Transit has 220 Transit Security Officers and 88 Transit Police Officers (contracted Sheriff's Deputies).
- Safety Related Performance Measures: On an on-going basis, Sound Transit uses Board-adopted Service Standard and Performance Measures to monitor and manage the performance and service quality of the Sound Transit system. Quarterly, Sound Transit reports on service including preventable accidents per 100,000 miles.

In general, public transportation is a safer way to travel than by automobile.

- A person can reduce his or her chance of being in an accident by more than 90% simply by taking public transit as opposed to commuting by car.
- Traveling by public transportation is 10 times safer per mile than traveling by automobile.
- Transit is a key strategy in advancing Vision Zero and eliminating traffic fatalities.
- Cities with higher public transit use can cut their road traffic death rate in half
- Urban teens take 5 times as many public transit trips and experience half the per capita auto death rate.

APTA: <https://www.apta.com/news-publications/public-transportation-benefits/>

4. Describe how the project improves intermodal connections (e.g. between autos, ferries, commuter rail, high capacity transit, bus, carpool, bicycle, etc.), or facilities connections between separate operators of a single mode (e.g., two transit operators).

This project improves intermodal connections for:

LIGHT RAIL: From the NE 145th Street Station riders will be able to access Link light rail. Link operates 20 hours per day, with trains arriving as often as every four minutes in the peak period, with train speeds of up to 55 mph and service expected to operate 95% or more on time. In 2021, Sound Transit will expand light rail to Seattle's U District, Roosevelt and Northgate neighborhoods. In 2023 trains will reach Mercer Island, Bellevue and Overlake/Redmond. Further extensions of light rail to Shoreline, Mountlake Terrace, Lynnwood, Kent/Des Moines, Federal Way and downtown Redmond open in 2024. When this BRT project starts revenue service, Link will be serving 10 regional growth centers.

EXPRESS and LOCAL BUS: Existing routes within the corridor include ST Express 522, King County Metro routes 372, 309 and 312. Community Transit provides service to the UW Bothell Campus. When the BRT project opens in 2024, it is anticipated that King County Metro and Community Transit will provide bus service at/near the various BRT stations. Transit integration is a key feature of the project. Sound Transit is working to design shared, double-length stations so that two buses can unload/load simultaneously along the corridor to accommodate the substantial Metro service along with Stride, and for the best rider experience. And like Stride, the Metro routes serving these stations will also have off-board fare payment and all-door boarding, reducing dwell times.

P&R's: There are several large park and ride facilities in the corridor including one in Bothell with 220 stalls and one in Kenmore with over 600 stalls. The BRT project will provide 900 new parking stalls in the corridor in the Cities of Kenmore, Bothell and Lake Forest Park. Other project elements associated with the project that benefit P&R users include signage, lighting, shelters, benches and real-time bus arrival. Per the System Access Policy (Board Resolution No. R2013-03), when designing transit facilities and services, Sound Transit will maximize pedestrian, bicycle and transit access.

Requests for additional parking are Sound Transit's most-received customer inquiry. Parking provided by Sound Transit is intended for and restricted to customers of transit services. To enforce parking management, Sound Transit implemented parking management tools such as designated parking for high occupancy vehicles (HOV) and vanpool vehicles; designated parking for transit parking permit holders; parking validation systems, and parking fees. Sound Transit has a parking permit program to increase the number of transit customers accommodated per parking space, improving the efficiency of facilities and services, and improving customer satisfaction. To make it easier to ride, Sound Transit reserves some

parking at our busiest park-and-rides for carpool and SOV parking permit holders on weekday mornings. Permits provide new access to transit for riders arriving at their station or stop after the park-and-ride is typically full. Reserved permit parking areas does not exceed 50 percent of the transit parking supply for a given station or transit center.

>>Carpool parking permits are available free of charge to groups of two or more transit riders who regularly drive together to catch the bus or train. Permits give you access to priority reserved parking areas on weekdays when arriving with two or more transit riders in a vehicle during morning rush hours.

>>Paid SOV parking prices vary by location, based on market rates (ranging from \$45-120 per month) for parking in the surrounding areas.

>> As of March 2020, Sound Transit has issued 844 SOV permits at 13 facilities (includes 15 ORCA LIFT rate SOV permits) and 349 carpool permits at 14 facilities. In order to have a valid Sound Transit parking permit, the user must use transit an average of three times a week or 12 times a month to be eligible. Sound Transit verifies transit use through ORCA fare card data and checks for regular usage monthly to renew the permits.

VANPOOL and CARPOOL: BRT stations will have passenger amenities such as serving P&R lots, transit connections and park and rides may provide access to drop-off and pick-up areas. A growing percentage of Sound Transit riders access the stations by bus or carpooling. Sound Transit has issued 349 carpool permits at 14 facilities. The carpool parking permits prioritize parking for carpools over SOVs.

BICYCLING and WALKING: Per the System Access Policy (Board Resolution No. R2013-03), when designing transit facilities and services, Sound Transit will maximize pedestrian, bicycle and transit access. Depending on station location, racks, lockers and/or cages may be available. The BRT buses will accommodate bicycles. Pedestrian amenities at BRT stations will include sidewalks, crosswalks, benches, lighting, and signage.

In late 2019, Sound Transit began installing about 900 on-demand bike lockers at stations throughout existing service areas and at future stations. The new on-demand lockers will be rolled out over the next three years to replace existing lockers and include at future light rail stations. On-demand bicycle parking provides users with a smart card that unlocks any available on-demand locker or bike cage on a first-come, first-served basis. The lockers are accessible 24 hours a day, and can be rented for up to 10 days. Under the new program, riders can load money onto the card and then use the card to access the new lockers. Some of the BRT stations could have on-demand lockers.

Established in ST3, the Station Access Allowance program was funded at \$27 (2014\$) for additional access improvements outside the footprint of ST3 light rail and BRT stations. Funds are for improvements that will create safe, direct walking and bicycling routes to surrounding neighborhoods, businesses and community gathering places. This funding will help catalyze investments around BRT station areas that will improve the quality of pedestrian and bicycle infrastructure.

SOV DRIVERS: National data indicate that a \$10 million investment in public transit infrastructure saves local highway drivers and transit users \$15 million through reduced fuel and lost productivity costs. (ST3 Plan, Appendix D, page D-4). For electric vehicle drivers, each Sound Transit P&R has charging stations.

TRANSPORTATION NETWORK COMPANIES (e.g. Via, Uber, Lyft, etc.): P&R facilities and the 145th Link Station will include passenger drop-off/pick up facilities for TNCs

Some of these intermodal connections are shown on the maps provided (see attached).

5. If applicable, describe how the project provides an improvement in travel time and/or reliability for transit users traveling to and/or within centers.

The buses will support BRT, providing fast, frequent and reliable transit service between Woodinville, Bothell, University of Washington Bothell campus, Kenmore, Lake Forest Park, and Shoreline. It will directly connect to the future Shoreline South/145th Link light rail station, which will then take riders to other centers such as Lynnwood City Center to the north and Northgate, University Community, and downtown Seattle to the south. Riders will connect to and transfer between the SR 522BRT, I-405 BRT, Link light rail and local bus service provided by Community Transit and King Co Metro. With improved access, service and reliability - saving riders between 12 and 17 minutes transit travel time - there will be 900 new transit riders a day due to this project (i.e. 900 new riders over/above existing local and express bus service, assumed from the 900 new parking stalls provided from the project). The total SR 522 BRT ridership on the corridor is 9,000 per day.

The project includes roadway improvements for BRT priority, including business access transit lanes, lanes re-purposed for transit, bus queue bypass lanes and transit signal priority. This will result in more reliable transit service and decreases in the variability of transit travel times particularly in peak-hour congestion, improving operating efficiency for the agency and quality of service for the rider. Increased travel time reliability also saves costs in direct agency expenditures.

6. If applicable, describe how the project increases transit use to or within centers.

522 BRT increases transit use to local and regionally designated centers by establishing new,

fast, frequent and reliable high capacity service along a congested travel corridor in north King County. Off-board payment and real-time arrival bus arrival information makes the service easy and more attractive to use. Additionally, riders can make easy connections to regional Link light rail and other local and express bus service. The SR 522 BRT will have 9,000 riders per day. The improvements for speed and reliability to the SR 522 corridor (BAT lanes, queue jumps, etc) will also benefit KCM and CT bus service.

7. Describe how this project supports a long-term strategy to maximize the efficiency of the corridor? Describe the problem and how this project will remedy it.

Arising out of a local, community-driven effort, the SR 522/NE 145th BRT Project was first proposed by the 522 Transit Now! Coalition and local elected officials and staff from Shoreline, Lake Forest Park, Kenmore, Bothell and Woodinville. Continued community advocacy helped to ensure that the project was included on the ST3 ballot for voter consideration. In 2016, the ST3 Plan was approved by voters. The Project receives continued support by an Elected Leadership Group (ELG) which consists of elected leaders from the areas served by the corridor, an Interagency Group (IAG) comprised of representatives from partner agencies and jurisdictions, and the existing City Managers Group (CMG). The SR 522 BRT Project addresses a congested corridor by significantly improving the speed and reliability of transit service. The corridor improvements not only support ST's SR 522 BRT service, but also help improve the speed and reliability of KCM service and CT service - maximizing the efficiency of the corridor. Also, by procuring BEB buses, the project supports a long term strategy to reduce pollution and support sustainability in the region.

Overall, transit boardings in the central Puget Sound region reached 221 million at the end of 2018, marking the eighth straight year of growing ridership. Total transit boardings in the region in 2018 increased by 2.4 million over the previous year, the largest increase among the top 50 urbanized areas across the nation. Demand for transit is already strong and by 2035, this demand is expected to increase 75%.

Additionally, average daily weekday delay in general purpose lanes on freeway corridors in King and Snohomish counties grew roughly 7.3% from 29,747 daily vehicle hours of delay in 2015 to 31,918 hours in 2017. This growth places huge demand and strain on the region's transportation system. The new BRT project is part of a larger strategy responding to the region's growth by providing fast, reliable, and efficient transit service even as congestion increases. BRT will connect north and east King County residents to light rail and I-405 BRT, which means easy transit connections to regional growth centers.

The BEBs will support new BRT service in an increasingly congested area constrained by geographical limits and growth in the area. Daily traffic counts on SR 522 have increased by an average of 18% since 2010 (ranging from 10% to 30%, depending on the section of the route). Similarly, buses on along SR 522 have experienced ridership growth, with average passengers per weekday trip rising over 34% since 2010. KCM Route 372 which runs along SR 522 for much of its route, has seen daily ridership grow 60% between 2015 and 2017. ST Express Bus Route 522 carried over 5,200 passengers in this corridor in 2019. These routes also experience crowding, many trips are standing room only. BRT buses will provide more service and better travel times. With SR 522 BRT, ridership is expected to go from 5,000 to 9,000 daily riders.

The 522 BRT project provides long-term improvements along the corridor. For example, FTA has established a useful life for the following elements of the project:

- >> Heavy-duty high capacity BRT bus = a minimum of 12 years
- >> P&R facilities = 40-50 years
- >> Bus shelter = at least 10 years

Sound Transit's dedicated revenue stream is available in its entirety to finance ST projects and operations; no revenues will be drawn from sources that are used to support other services or projects. All aspects of the project are built to meet projected long-term travel demand to/from multiple regional centers. Sound Transit's financial plan shows that the agency has the local funding to implement and operate the BRT project through 2060.

Sound Transit supports and participates in a variety of TDM activities designed to help people use transportation more efficiently. Along with the ORCA Business Accounts, where employers provide ORCA cards to their employees, ST will offer additional outreach that helps riders make seamless bus/rail transfers with ORCA and Next Generation ORCA. Seamless transfers will help riders access the regional transit system no matter which provider they use (ST, Community Transit, Everett Transit, King County Metro, Kitsap Transit, Pierce Transit, Seattle Street Car, the King County Water Taxi, and Washington State Ferries.) If more than one mode is needed to get to a destination, the ORCA/Next Gen ORCA card automatically calculates the transfer.

Sound Transit will be able to support city-led housing development efforts through its' TOD program.

The Board's TOD policy includes a priority to offer surplus property for the development of affordable housing. Sound Transit offers 80 percent of its surplus property that is suitable for housing to qualified entities to develop affordable to families at 80 percent of area median income or less.

For the 522 BRT project, there are plans for TOD around the Kenmore Park and Ride.

Criteria: Air Quality and Climate Change

- Please select one or more elements in the list below that are included in the project's scope of work, and provide the requested information in the pages to follow.**

Alternative Fuels or Vehicle Technology, Transit and Ferry Service

Air Quality and Climate Change: Alternative Fuels or Technology

- Describe the change in fuel or vehicle technology.**
Sound Transit is recommending to purchase battery electric buses for the BRT service.
- How many vehicles/equipment are affected?**
This funding request will cover the purchase of six high capacity transit BRT buses.
- What are the current conditions (model year, fuel type, etc.) of the vehicles/equipment?**
Currently ST Express Bus provide transit service in the corridor. Buses that ST currently uses in this corridor include 60 ft articulated diesel hybrid buses.
- Describe the annual activity per vehicle/equipment (e.g. miles traveled per vehicle, amount of fuel used per engine, etc.)**
The BEBs will support the new 522/NE145th BRT project with service 19 hours a day Monday through Saturday and 17 hours on Sunday.

Using the EPA DEQ tool the following emissions reductions were

Assumptions -

- All Hybrid Diesel fleet = 13 buses | Mixed fleet = 14 buses
- Grant Case = 8 Hybrid Diesel + 6 BEB

Reductions -

Energy consumption (fuel and charging) reduced by 1,701 MMBtu's per yr - a 10.7% decrease

- Harmful emissions reduced:
 - o NOx reduced by 0.342 metric tons per year (mtpy) - a 43.1% decrease
 - o PM2.5 reduced by 0.006 mtpy - a 44% decrease
 - o HC reduced by 0.024 mtpy - a 42.9% decrease
 - o CO reduced by 0.098 mtpy - a 43% decrease
- GHG emissions reduced by 508.5 mtpy - a 42.9% decrease

The calculations above are for tailpipe emissions only and do not include the point source emissions from electricity needed to charge the BEBs. However, Snohomish PUD, the utility provider where the BRT bus base will operate provides 90% of their electricity from renewable sources. ST also actively seeks options with all utilities for additional renewable energy purchasing opportunities.

- Please describe the source of the alternative fuel or technology data provided above (e.g. manufacturer data, EPA/DOE data, previous projects, etc.)**

EPAs Diesel Emissions Quantifier, ST3 modeling, ST's Service Implementation Plan,

Air Quality and Climate Change: Transit and Ferry Service

- What is the current transit ridership for the affected transit stops or routes?**
ST Express Route 522
5,200 daily
- What is the average transit trip length for the affected routes?**
The average trip length for the ST Express Route 522 is 10.3 miles.
- What is the average transit trip length of the entire system?**
The average transit trip length for the entire ST Express system is 13.7 miles.
- If the project includes a park and ride, how many new stalls are being provided?**
900
- Are there other amenities included to encourage new transit ridership? If so, please describe.**
BRT buses are anticipated to include: comfortable, cloth upholstered seats with cup holders and foot rests, air-conditioning, automated "next stop" display and audio announcements, interior LED lighting, security cameras, interior design making it easier for passengers to move to seats and exits, and racks for three bicycles. All BRT buses will be fully ADA accessible.
- What is the expected increase in transit ridership from the project?**

Ridership in the corridor is forecasted to go from 5,000 to 9,000 daily riders.

7. **If a new or expanded ferry service, what is the length of the driving route being replaced?**
NA
8. **Please describe the source of the project data provided above (e.g., Environmental Impact Statement, EPA/DOE data, traffic study, survey, previous projects, etc.).**
ST's Service Implementation Plan, EPA DEQ tool

Criteria: Project Readiness and Financial Plan

1. **What is the PSRC funding source being requested?**
N/A
2. **Has this project received PSRC funds previously?**
No
3. **If yes, please provide the project's PSRC TIP ID**
N/A

Phase	Year	Alternate Year	Amount
other	2023		\$7,000,000.00

Total Request: \$7,000,000.00

Total Estimated Project Cost and Schedule

Other

Funding Source	Secured/Unsecured	Amount
Local	Secured	\$24,890,000.00
5307	Unsecured	\$7,000,000.00
		<u>\$31,890,000.00</u>

Expected year of completion for this phase: 2021

Summary

1. **Estimated project completion date**
05/2021
2. **Pretty total project cost**
\$31,890,000.00

Funding Documentation

1. **Documents**
N/A
2. **Please enter your description of your financial documentation in the text box below.**
Funding for the project is affordable within the Sound Transit financial plan. Local match is available to obligate the FTA Competitive funding request. Sound Transit seeks \$7,000,000 to support the procurement of six BRT buses.

The Sound Transit Financial Plan incorporates the agency's most current proposed or Board adopted operating budget and long-term capital and operating plans for Sound Transit projects, including the 522 BRT project.

See page 5 and 89 of Sound Transit's 2020 Financial Plan and proposed Budget for a description of the BRT project.
<https://www.soundtransit.org/sites/default/files/documents/2020-financial-plan-and-proposedbudget.pdf>

Project Readiness: PE

1. **Are you requesting funds for ONLY a planning study or preliminary engineering?**

No

2. **What is the actual or estimated start date for preliminary engineering/design?**
April 2020
3. **Is preliminary engineering complete?**
No
4. **What was the date of completion (month and year)?**
N/A
5. **Have preliminary plans been submitted to WSDOT for approval?**
N/A
6. **Are there any other PE/Design milestones associated with the project? Please identify and provide dates of completion. You may also use this space to explain any dates above.**
N/A
7. **When are preliminary plans expected to be complete?**
June 2021

Project Readiness: NEPA

1. **What is the current or anticipated level of environmental documentation under the National Environmental Policy Act (NEPA) for this project?**
Categorical Exclusion (CE)
2. **Has the NEPA documentation been approved?**
Yes
3. **Please provide the date of NEPA approval, or the anticipated date of completion (month and year).**
4/19/2019

Project Readiness: Right of Way

1. **Will Right of Way be required for this project?**
No
2. **What is the actual or estimated start date for right of way?**
N/A
3. **What is the estimated (or achieved) completion date for the right of way plan and funding estimate (month and year)?**
N/A
4. **Please describe the right of way needs of the project, including property acquisitions, temporary construction easements, and/or permits.**
N/A
5. **What is the zoning in the project area?**
N/A
6. **Discuss the extent to which your schedule reflects the possibility of condemnation and the actions needed to pursue this.**
N/A
7. **Does your agency have experience in conducting right of way acquisitions of similar size and complexity?**
N/A
8. **If not, when do you expect a consultant to be selected, under contract, and ready to start (month and year)?**
N/A
9. **In the box below, please identify all relevant right of way milestones, including the current status and estimated completion date of each.**
N/A

Project Readiness: Construction

1. **Are funds being requested for construction?**
No
2. **Do you have an engineer's estimate?**
N/A
3. **Engineers estimate document**

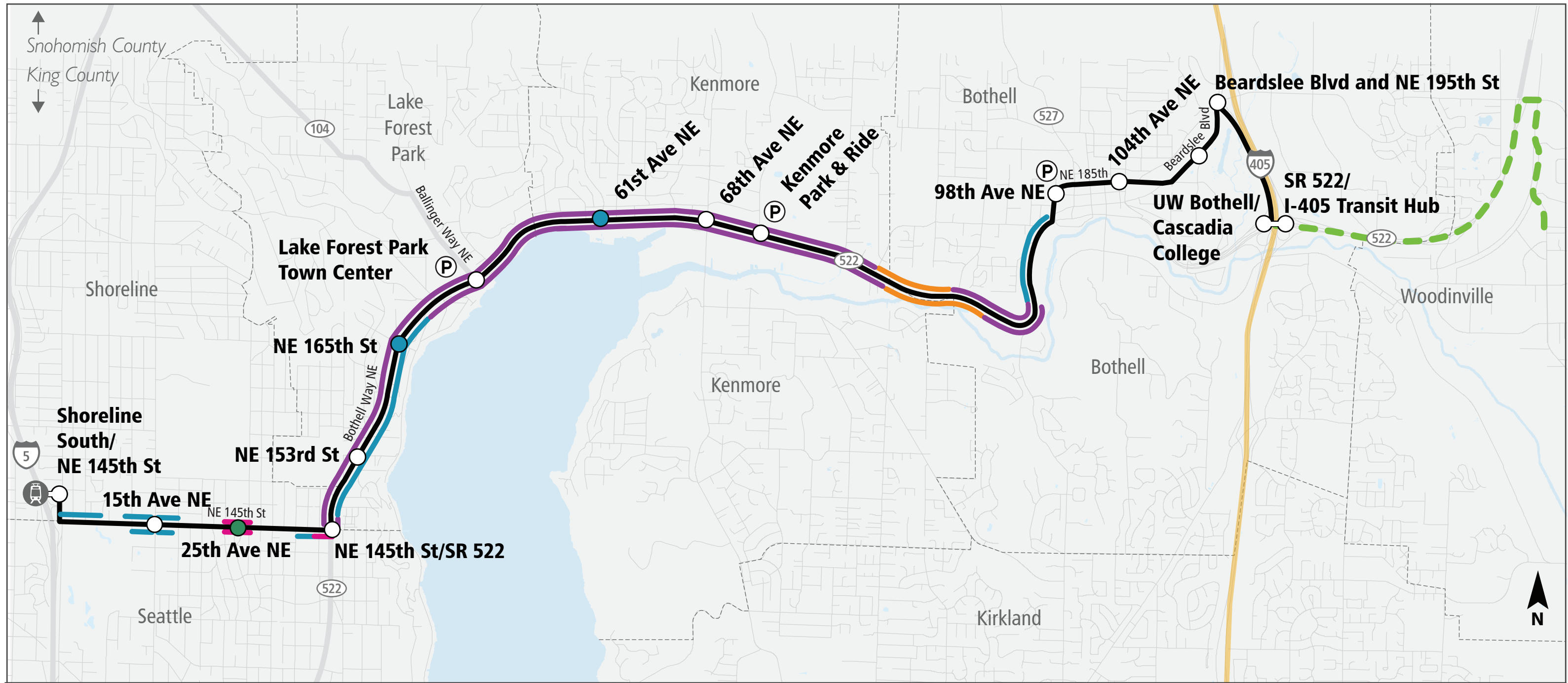
N/A

4. **Identify the environmental permits needed for the project and when they are scheduled to be acquired.**
N/A
5. **Are Plans, Specifications & Estimates (PS&E) approved?**
N/A
6. **Please provide the date of approval, or the date when PS&E is scheduled to be submitted for approval (month and year).**
N/A
7. **When is the project scheduled to go to bid (month and year)?**
N/A

Other Considerations















1. **Describe any additional aspects of your project not requested in the evaluation criteria that could be relevant to the final project recommendation and decision-making process.**
The schedule milestones provided include schedule float, providing a conservative estimate for project completion.
2. **Describe any innovative components included in your project: these could include design elements, cost saving measures, or other innovations.**
Battery electric buses are a relatively new and exciting bus technology. They reduce harmful emissions and reduce energy/fuel consumption and some studies show that the BEBs may reduce operating costs.
3. **Describe the process that your agency uses to determine the benefits of projects; this could include formal cost-benefit analysis, practical design, or some other process by which the benefits of projects are determined.**
This project is part of the ST3 plan. A full benefit-cost (B/C) analysis was conducted on the ST3 investment package. Sound Transit's planning assumptions align closely with Puget Sound Regional Council plans. For more details, see link to ST3 Benefit-Cost analysis here:

https://st32.blob.core.windows.net/media/Default/Document%20Library%20Featured/8-22-16/ST3_Appendix-C_2016_web.pdf
4. **Final documents**
N/A

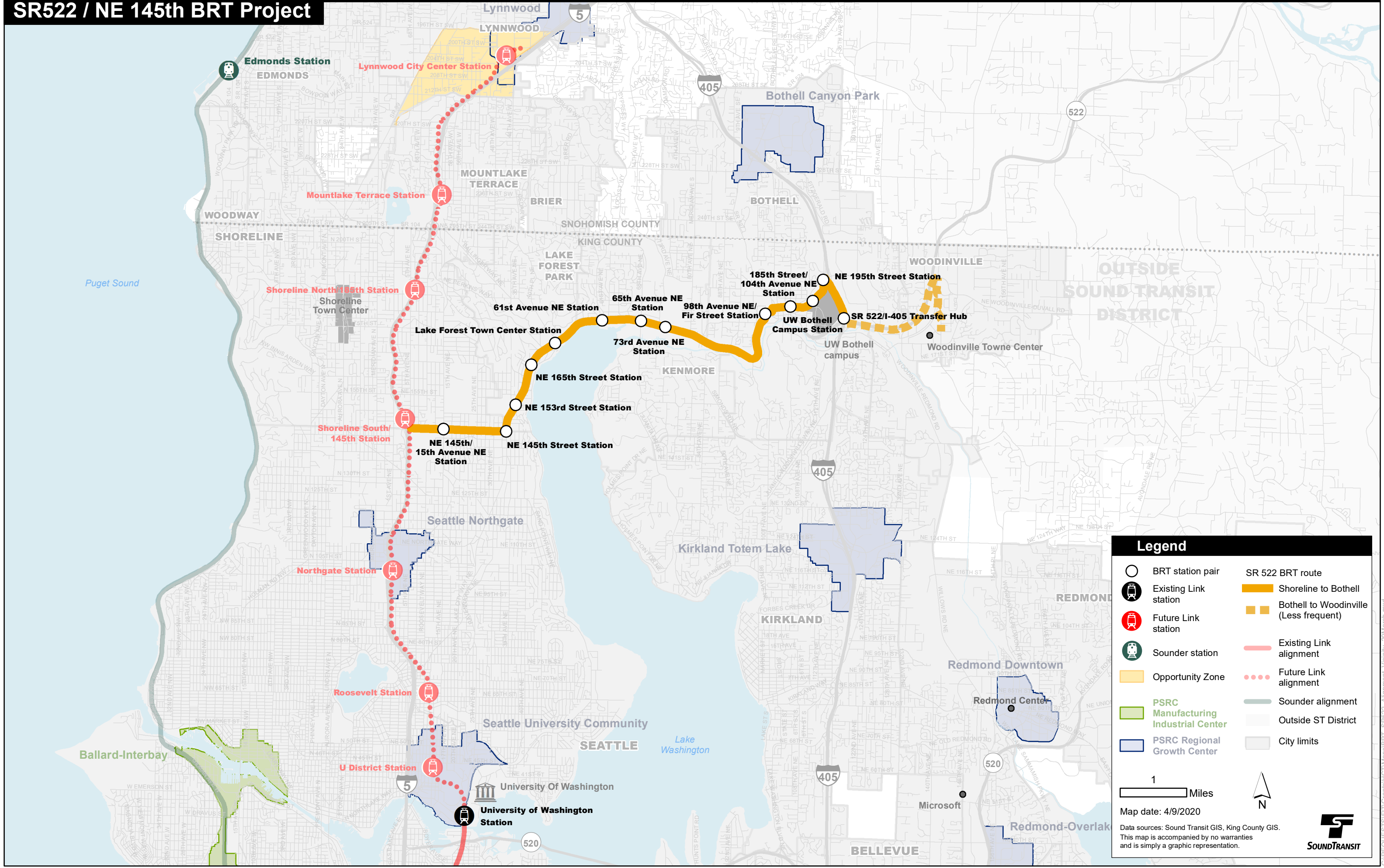


SR 522/NE 145th Bus Rapid Transit (BRT)

Refined Project Map

-  Proposed SR 522/NE 145th BRT route
-  Existing Business Access and Transit (BAT) lane
-  Proposed BAT lane
-  Proposed turn pocket addition
-  BAT lanes under construction (expected completion 2021)
-  Woodinville service options under evaluation
-  I-405 BRT route
-  BRT station
-  Provisional BRT station
-  BRT station subject to further evaluation
-  Transit Hub
-  Proposed parking facilities
-  City boundaries
-  Future Link light rail station

SR522 / NE 145th BRT Project



Legend

	BRT station pair		SR 522 BRT route
	Existing Link station		Shoreline to Bothell
	Future Link station		Bothell to Woodinville (Less frequent)
	Sounder station		Existing Link alignment
	Opportunity Zone		Future Link alignment
	PSRC Manufacturing Industrial Center		Sounder alignment
	PSRC Regional Growth Center		Outside ST District
			City limits

1 Miles

Map date: 4/9/2020

Data sources: Sound Transit GIS, King County GIS.
This map is accompanied by no warranties and is simply a graphic representation.

G:\REQUESTS\IT\GIS\GIS\MapSR522\BRT_SR522_Alignment_Victory_20March.mxd

More transit connections every few years

Link Light Rail

- 2021:** University of Washington to Northgate (3 new stations)
- 2022:** Tacoma Link to Hilltop (6 new stations)
- 2023:** Seattle to Mercer Island, Bellevue and Overlake (10 new stations)
- 2024:** Northgate to Lynnwood (4 new stations)
- 2024:** Overlake to downtown Redmond (2 new stations)
- 2024:** Angle Lake to Kent/Des Moines and Federal Way (3 new stations)
- 2030:** Federal Way to Fife and Tacoma (4 new stations)
- 2030:** West Seattle to downtown Seattle (3 new stations)
- 2031:** New stations on existing line at S. Graham Street, S. Boeing Access Road and NE 130th Street
- 2035:** Ballard, Seattle Center and South Lake Union to downtown Seattle (7 new stations and new downtown Seattle light rail tunnel)
- 2036:** Lynnwood to Paine Field Industrial Center and Everett (6 new stations)
- 2039:** Tacoma Link to Tacoma Community College (6 new stations)
- 2041:** Issaquah to South Kirkland (4 new stations)

Stride Bus Rapid Transit (BRT)

- 2024:** I-405 and SR 518 from Lynnwood to Burien (11 stations; connections to light rail at Lynnwood, Bellevue and Tukwila)
- 2024:** SR 522 and NE 145th Street (10 stations; connection to light rail at Shoreline South/145th)

Souder Commuter Rail

- 2021–2023:** Parking and access improvements to Souder South stations (Kent, Auburn, Sumner, Puyallup)
- 2024:** Parking and access improvements at Souder North stations (Mukilteo and Edmonds)
- 2024–2036:** Souder South Capacity Expansion Program
- 2036:** Souder South Lakewood to DuPont (2 new stations)



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 401 S. Jackson St., Seattle, WA 98104

Link Light Rail

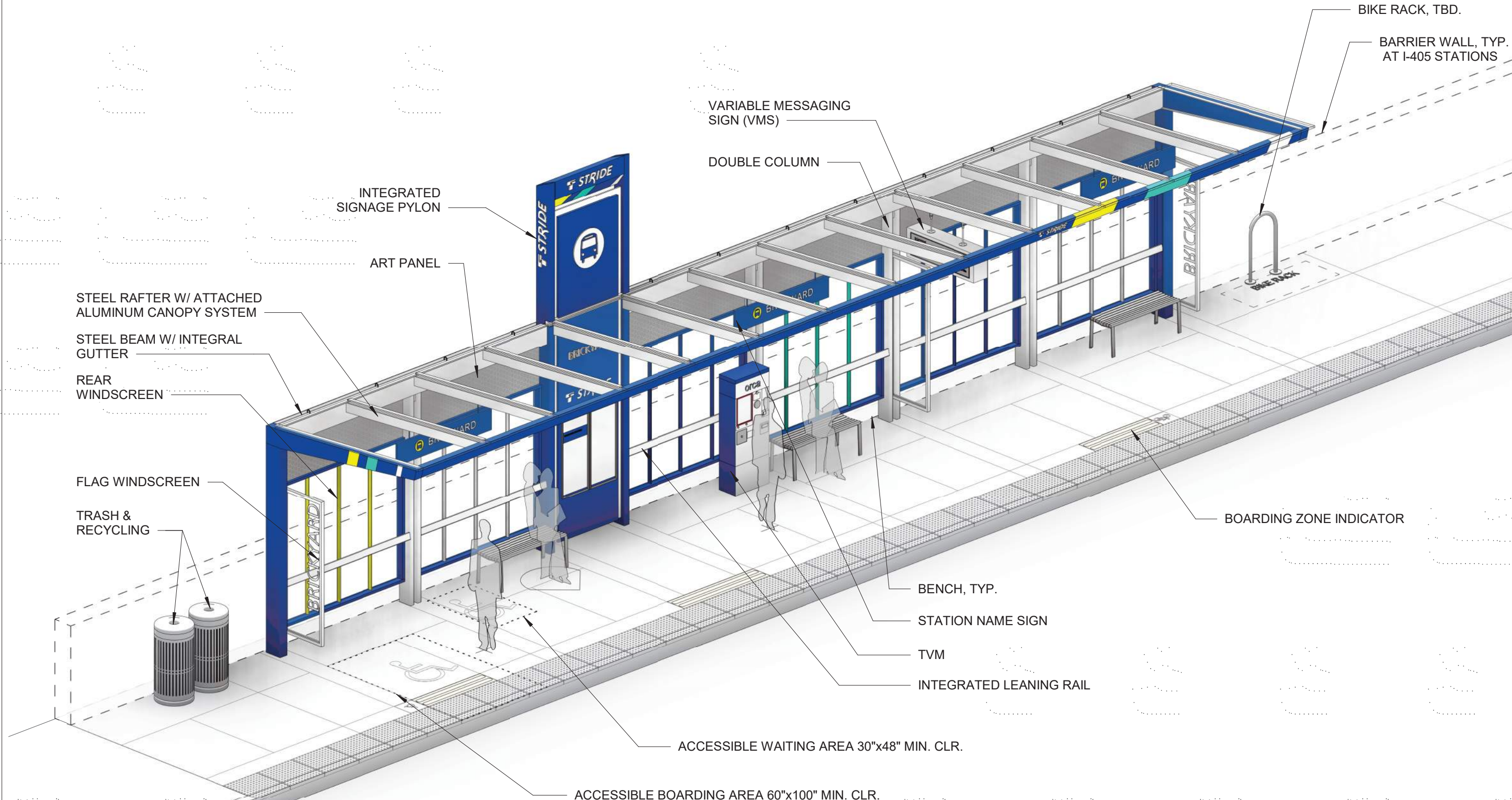
- Future service:**
- Everett–Seattle–West Seattle
 - Redmond–Seattle–Mariner
 - Ballard–Seattle–Tacoma
 - Issaquah–Bellevue–South Kirkland
 - Tacoma Dome–Tacoma Community College
- In service:**
- Univ. of Washington–Angle Lake
 - Tacoma Dome–Theater District

Souder Commuter Rail

- Future service:**
- DuPont–Lakewood
- In service:**
- Souder North (Everett–Seattle)
 - Souder South (Lakewood–Seattle)
- New station or bus facility
 - P Added parking
 - ⊕ Station improvements
 - ∞ Major transfer hub

Bus

- Future service:**
- Bus Rapid Transit (BRT)
- In service:**
- ST Express bus (service re-evaluated annually)
- Existing station or bus facility
 - P Existing parking
 - ⊙ Provisional light rail station



1	01/24/20				PHASE 2 - DRAFT DESIGN GUIDELINE
<p><i>PRELIMINARY CONCEPTS AND COLOR FOR ILLUSTRATION PURPOSES ONLY - SUBJECT TO CHANGE</i></p>					
No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY:
 DRAWN BY: BW/CD
 CHECKED BY: KGT
 APPROVED BY:

WSP

PIVOT ARCHITECTURE

SOUND TRANSIT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: DATE: 01/24/2020 REVIEWED BY: DATE:

SCALE:
 FILENAME:
 CONTRACT ID:
 DATE:

I-405 BRT
DRAFT STATION DESIGN GUIDELINE

SHEET TITLE: STATION OVERVIEW

DRAWING No.:
 LOCATION No.:
 SHEET No.: 104
 REV:




1	01/24/20				PHASE 2 - DRAFT DESIGN GUIDELINE
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DESIGNED BY:	
DRAWN BY:	BW/CD
CHECKED BY:	KGT
APPROVED BY:	




SUBMITTED BY:	DATE:	REVIEWED BY:	DATE:
	01/24/2020		



SCALE:	
FILENAME:	
CONTRACT ID:	
DATE:	
I-405 BRT DRAFT STATION DESIGN GUIDELINE	
SHEET TITLE: LIGHTING	

DRAWING No.:	
LOCATION No.:	
SHEET No.:	REV:
216	