

SR 522/145th BRT Update

Discussion

February 25, 2019



Presentation Overview

- Introductions
- Sound Transit SR 522/145th BRT update
- 145th and I-5 Interchange design update
- Questions/ Discussion



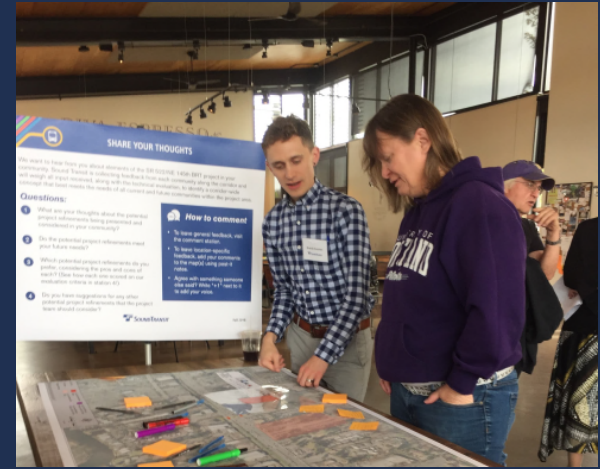


Update on Sound Transit SR 522/NE 145th Bus Rapid Transit

Shoreline City Council
February 25, 2019

Tonight

- Public outreach/what we heard
- Project refinements and comments from the Elected Leadership Group
- Future Corridor Improvements
- Preliminary Estimate
- Next Steps



Project Partnerships

- Thank you to the public and our regional partners:
 - Cities of Woodinville, Bothell, Kenmore, Lake Forest Park, Shoreline, and Seattle
 - WSDOT
 - King County Metro
 - Community Transit
 - University of Washington Bothell/Cascadia College
 - I-405 BRT project team and partners

A blue and white bus is parked on a street. The bus has a digital display at the top showing "522 SEATTLE" in orange. The number "9631" is visible on the front of the bus. The text "Public Comment" is overlaid in white, italicized font across the center of the image. The background shows a street with trees and buildings.

Public Comment



• ***Transit Integration
Update***

Typical transit integration in ST3: bus-to-rail

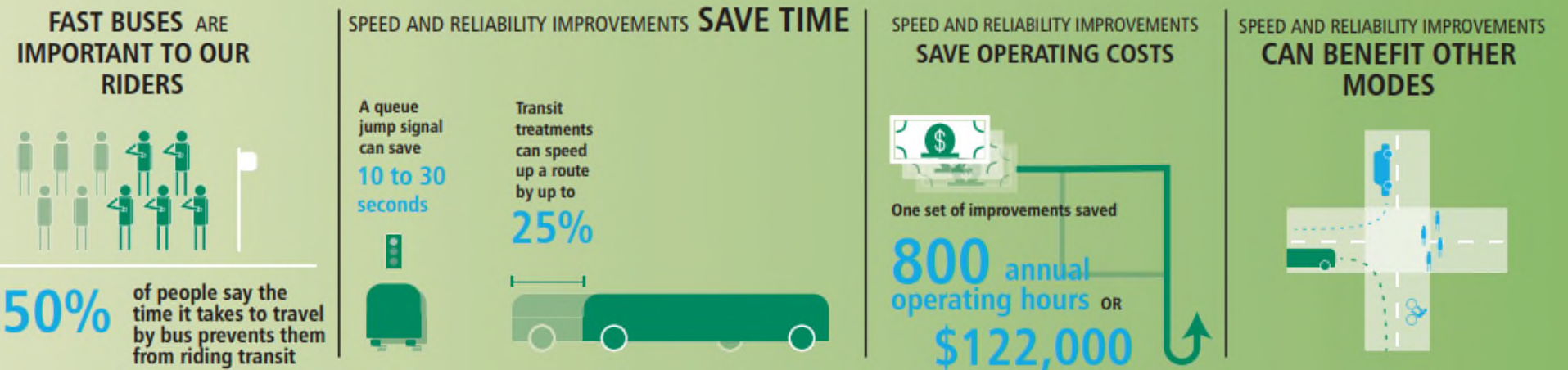


522 BRT is a unique challenge for integration

- Shared, eight-mile-long bus corridor with high ridership today
- Served by three agencies and many routes
- ST, KCM, and CT have collaborated during Phase 1 with these goals:
 - Customer focus: ease of navigation and transfers
 - Fast, frequent, and reliable service
 - Complementary (not duplicative) service



- Our priority is speed and reliability*



Sources: KCM Transit Speed and Reliability Guidelines and Strategies (March 2017); KCM 2009 Rider/Non-Rider Survey; KCM Annual Spot Improvements Report; KCM E Line Report

What we've done in Phase 1 (2018)

Developed a corridor vision that includes:



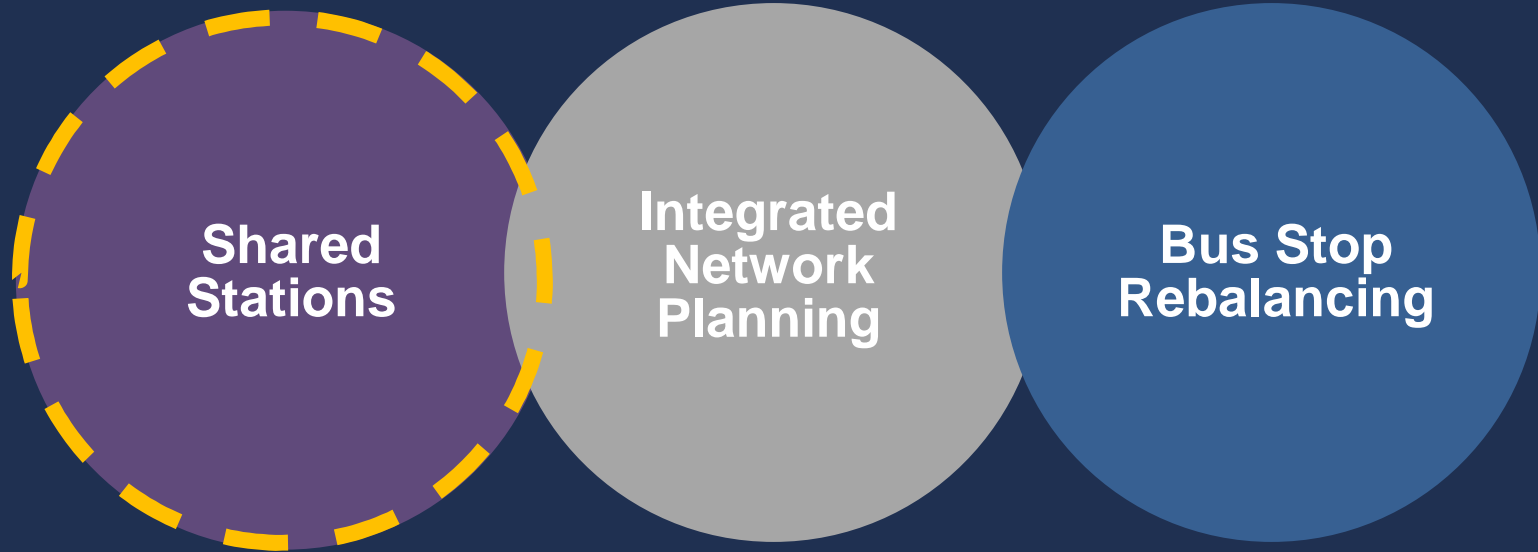
**Shared
Stations**

**Integrated
Network
Planning**

**Bus Stop
Rebalancing**

What we've done in Phase 1 (2018)

Developed a corridor vision that includes:



Shared stations along SR 522 and NE 145th

522 BRT stations will be shared by ST and KCM

- platforms will accommodate two 60' articulated buses, where feasible
- integrated real-time information



Shared BRT Station Layout Concept



Shared stations along SR 522 and NE 145th

To ensure low dwell times, ST and KCM buses will have:

- off-board fare payment
- all-door boarding
- level boarding

Three doors are better than one.



What we've done in Phase 1 (2018)

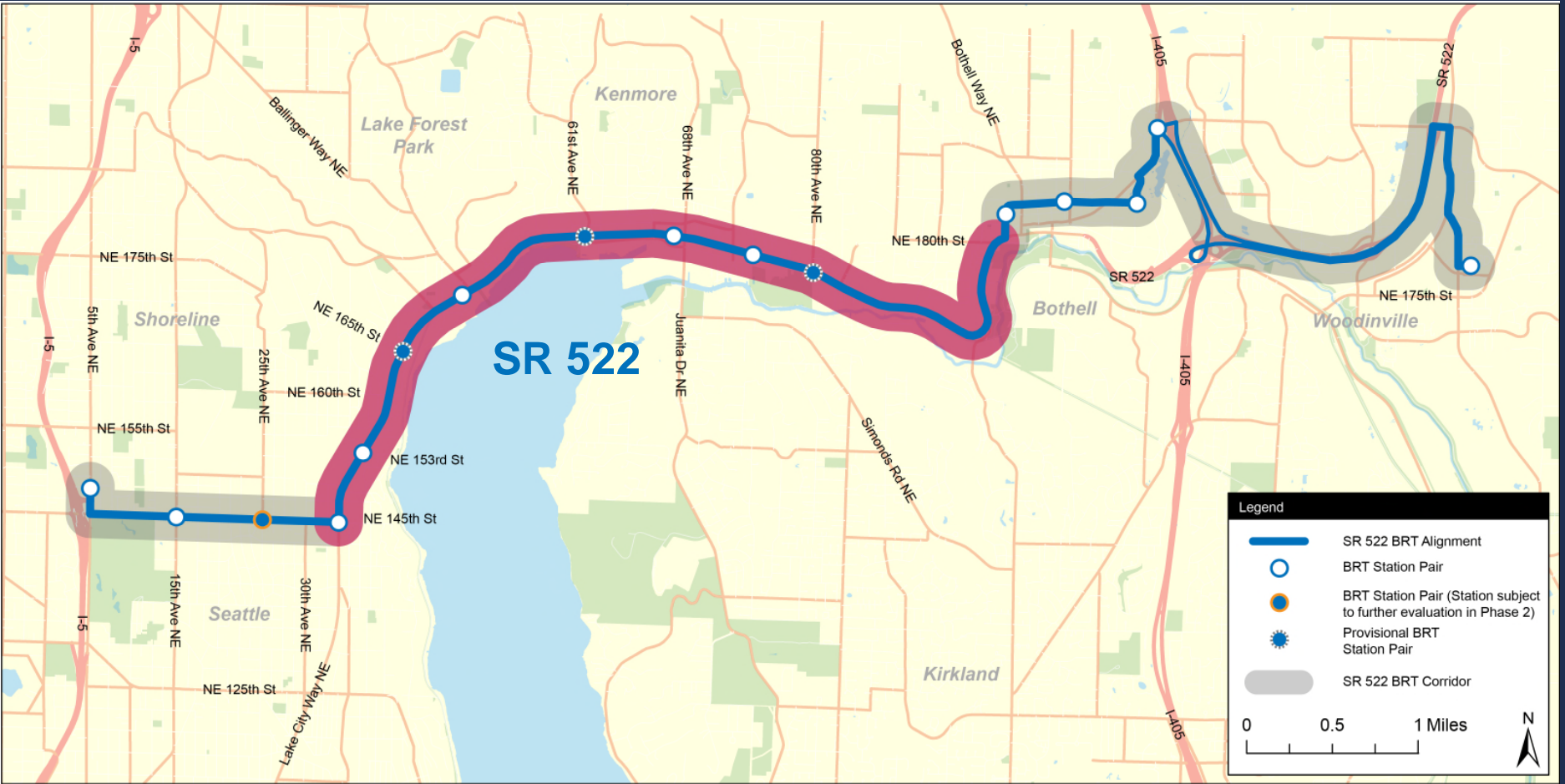
Developed a corridor vision that includes:



522 BRT Joint Service Concept: NE 145th St



522 BRT Joint Service Concept: SR 522

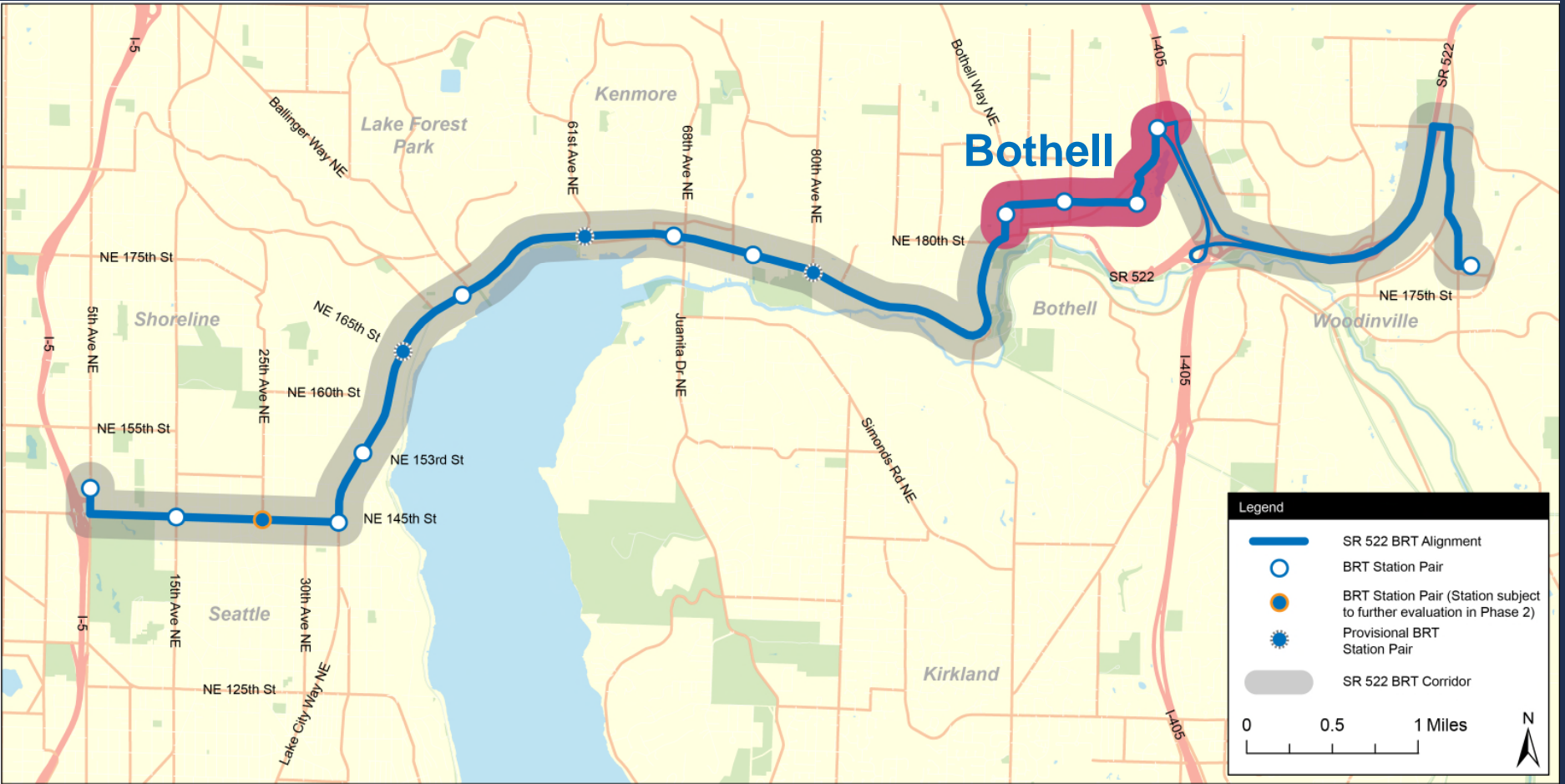


Legend

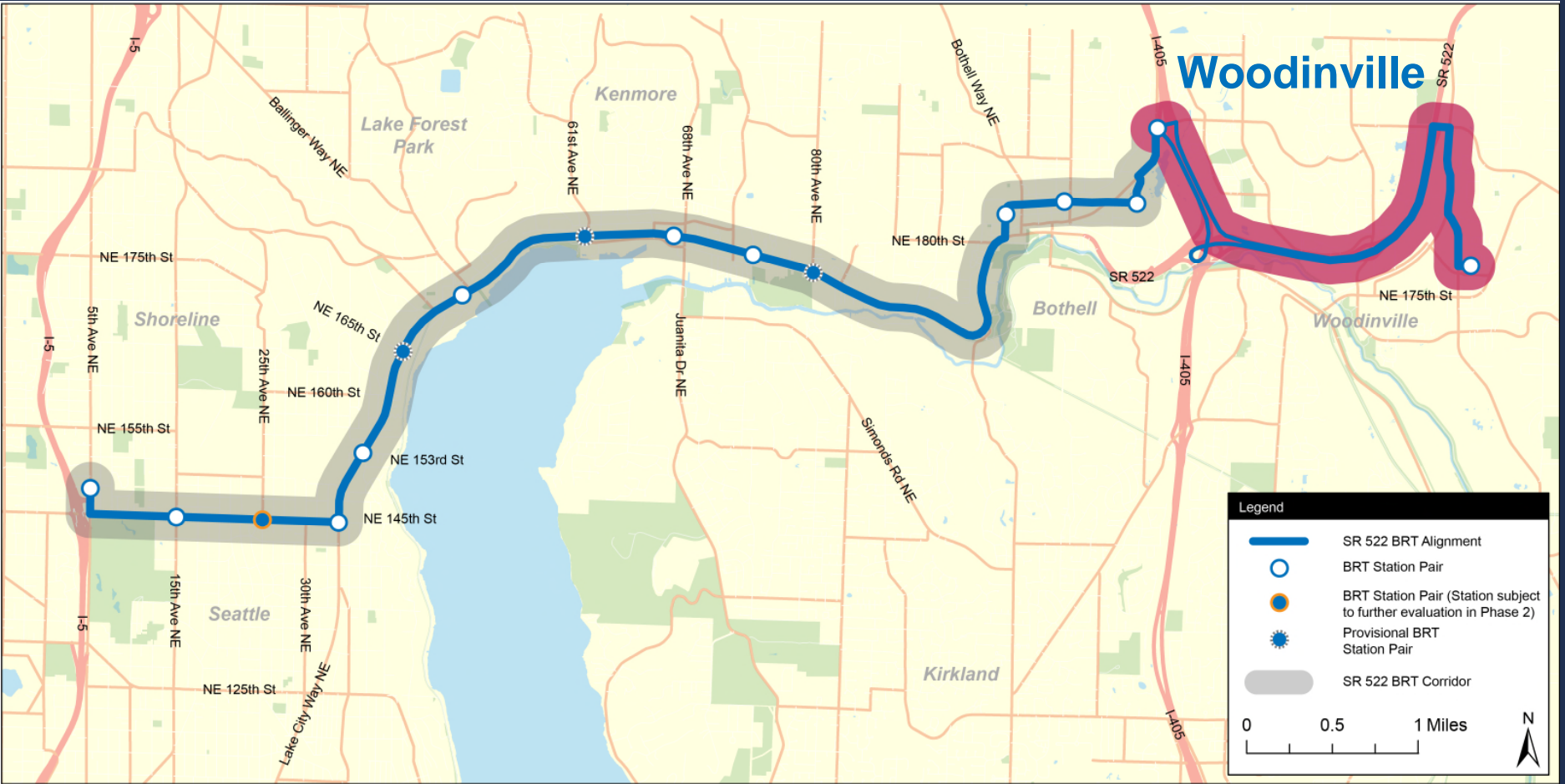
- SR 522 BRT Alignment
- BRT Station Pair
- BRT Station Pair (Station subject to further evaluation in Phase 2)
- Provisional BRT Station Pair
- SR 522 BRT Corridor

0 0.5 1 Miles

522 BRT Joint Service Concept: Bothell



522 BRT Joint Service Concept: Woodinville



ST Express Network Plan

- High-level, fully funded plan for ST Express service by year, through 2025
- Will evaluate all ST Express bus routes, include the STX 522

Q1 2019

- Develop draft 2025 ST Express Network Plan

Q2 2019

- Seek public feedback on draft plan

Q3 2019

- Final draft of plan
- Seek ST Board approval

2020-2025

- Plan could be updated if external factors change

KCM 2021 and 2024 Network Planning

- Major bus restructures around light rail expansions:
 - Northgate Link in 2021
 - Lynnwood Link in 2024
- Goals:
 - Easy connections with light rail stations
 - Improved network with better speed and reliability
- 2021 restructure will lay groundwork on NE 145th and SR 522 for 522 BRT project

CT Network Planning

- Major bus restructure planned for 2024
 - Commuter route truncation at Lynnwood and MLT
 - *Swift* connections to light rail and I-405 BRT
 - More frequent and more evening/weekend service
- First/last mile mobility options around rail stations
- Evaluating service to Northgate Link in 2021 as early option for Link integration

CT: Future of *Swift* Bus Rapid Transit

- Blue Line Extension to Shoreline North / 185th light rail station
- Green Line Extension to Downtown Bothell and UW-Bothell / Cascadia College

Integrated Future Network



What we've done in Phase 1 (2018)

Developed a corridor vision that includes:



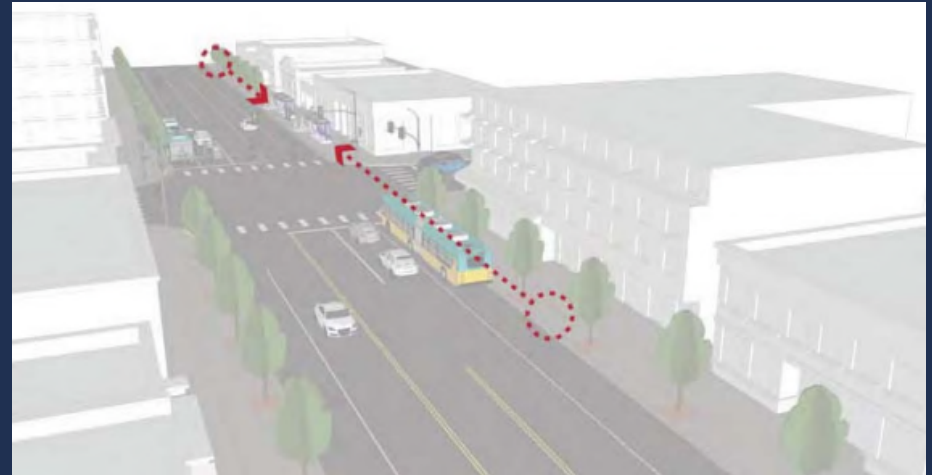
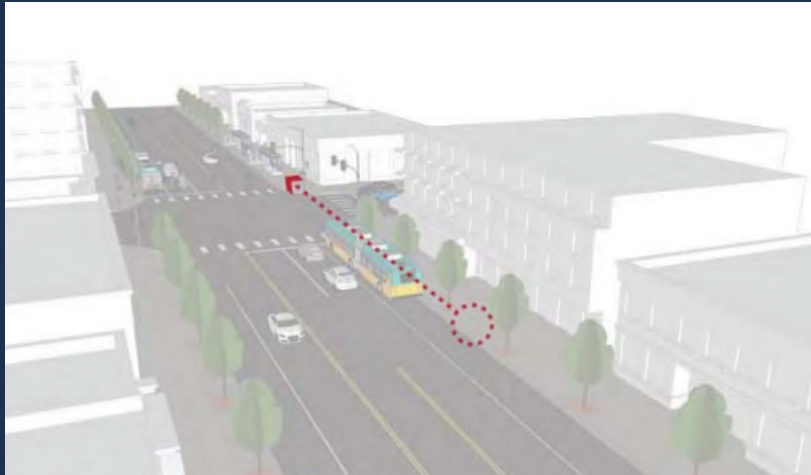
**Shared
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**Bus Stop
Rebalancing**

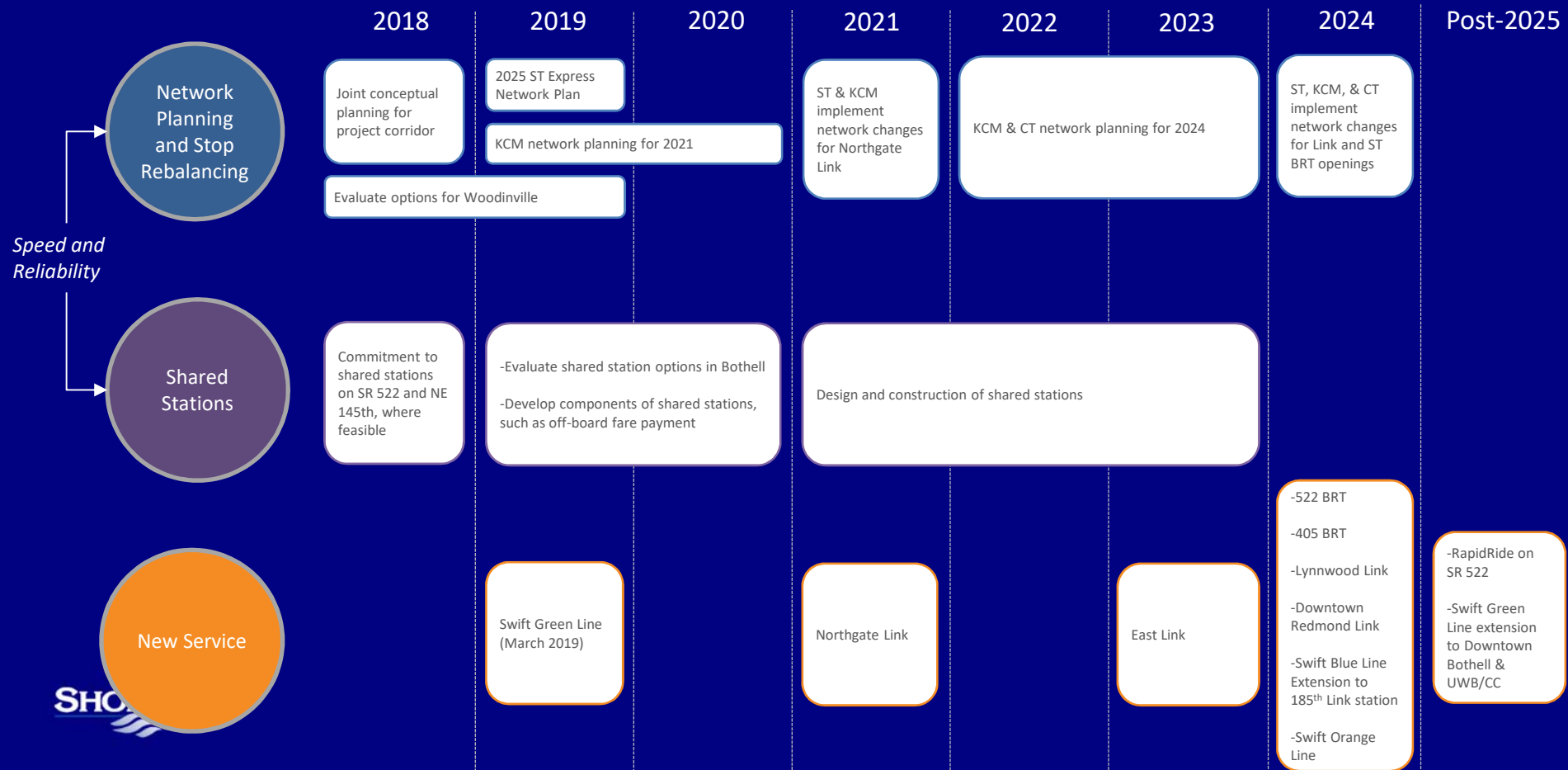
- ***Bus Stop Rebalancing***

- KCM to evaluate stop rebalancing:
 - NE 145th and SR 522 by 2021, as part of Northgate Link restructure
- Goals:
 - Improve speed and reliability for riders
 - Enable KCM and ST to better plan for corridor operations in 2024



522 BRT Transit Integration Timeline

Sound Transit, King County Metro, and Community Transit



Speed and Reliability



A blue and white bus is shown from a front-three-quarter view, parked on a street. The destination sign above the windshield displays "522 SEATTLE" in orange. The vehicle number "9631 K" is visible on both sides of the front. A wheelchair lift is mounted on the front. The background shows a city street with trees and buildings. The text "Public Outreach Update" is overlaid in white, italicized font across the center of the image.

Public Outreach Update

Outreach update

- Drop-In Sessions: Jan. 30 & 31, 1 – 8 p.m.
 - 165 attendees
 - 137 comments received
- Online open house: Jan. 28 – Feb. 11
 - 807 unique visitors
 - 84 comments received



Outreach update

- Key themes of what we heard:
 - Full corridor: Support for BRT service, BAT lanes, and transit integration
 - Full corridor: Support for bike racks and bike storage facilities at and near BRT stations
 - Full corridor: Support for keeping the existing direct transit connections to downtown Seattle
 - Full corridor: Concerns about traffic congestion and impacts



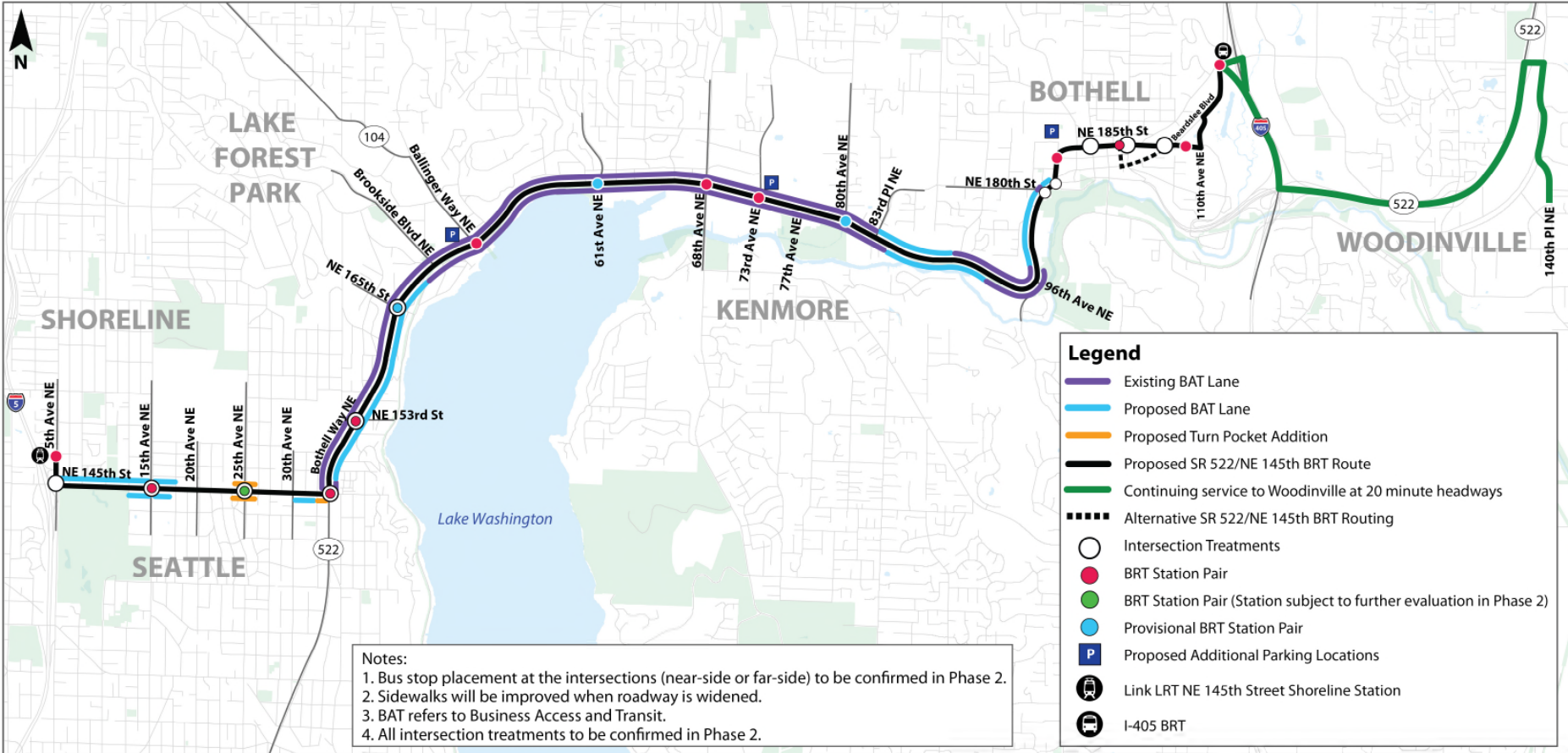
Outreach update

- Key themes of what we heard in specific areas:
 - *Woodinville*: Support for more frequent BRT service and local transit service in Woodinville
 - *Bothell*: Support for a bus-only lane on NE 185th St near 110th Ave NE
 - *Kenmore*: Support for additional parking and for provisional station at 61st; concerns about impacts to the heron nesting spots north of the Kenmore Park-and-Ride
 - *Lake Forest Park*: Support for a provisional station at 165th; support for BAT lanes along SR 522; interest in a pedestrian bridge to connect the parking garage with the Town Center
 - *North Seattle/Shoreline*: Support for BAT lanes and transit integration; concerns about business access, traffic, property impacts, and pedestrian safety



• ***SR 522/NE 145th BRT Refined Project***

SR 522/NE 145th BRT - Refined Project



Date: 2/13/2019

SR 522 & City Streets (Bothell & Woodinville)

Refined Project Elements

✓ BRT stations:

- On 98th NE at NE 183rd
- On NE 185th at 103rd NE
- On NE 185th at UWB/CC
- On Beardslee Blvd. at I-405/195th

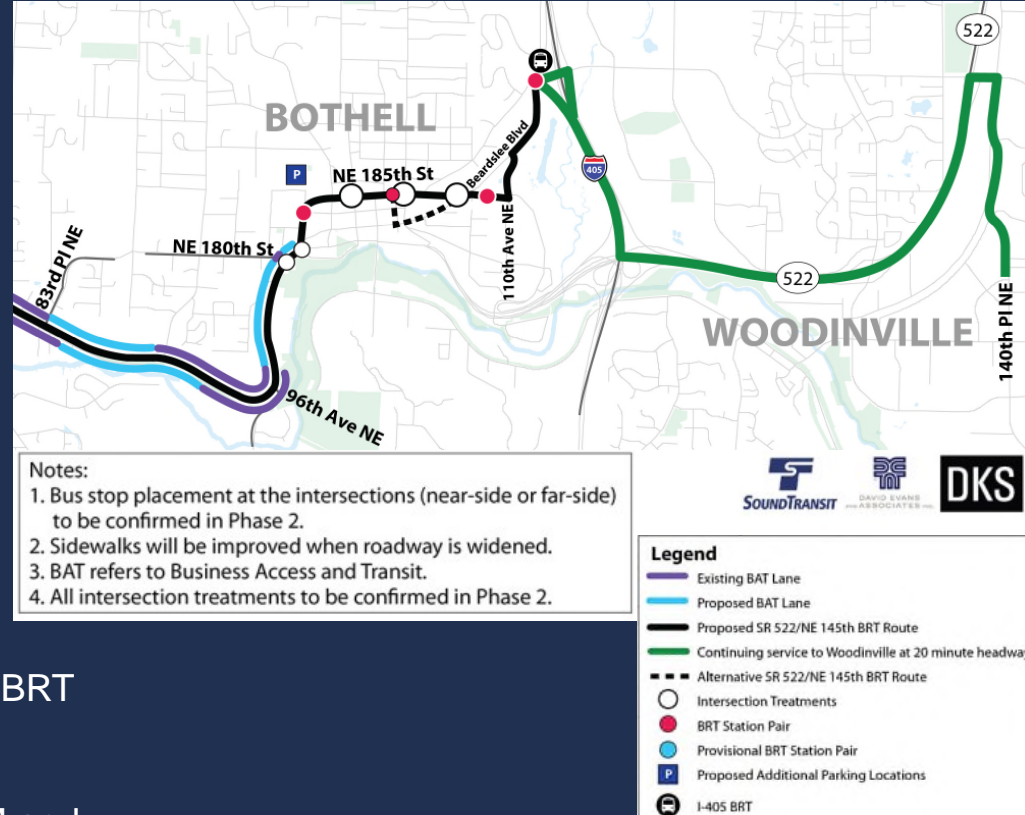
✓ Roadway Improvements

- BAT lanes on SR 522 & intersection treatments
- Construction of Bothell Stage 3 project

✓ Access Improvements

- 300-space parking garage at Pop Keeney
- New sidewalks with new BAT lanes
- Every SR 522 BRT bus connects to I-405 BRT (for further study in Phase 2)

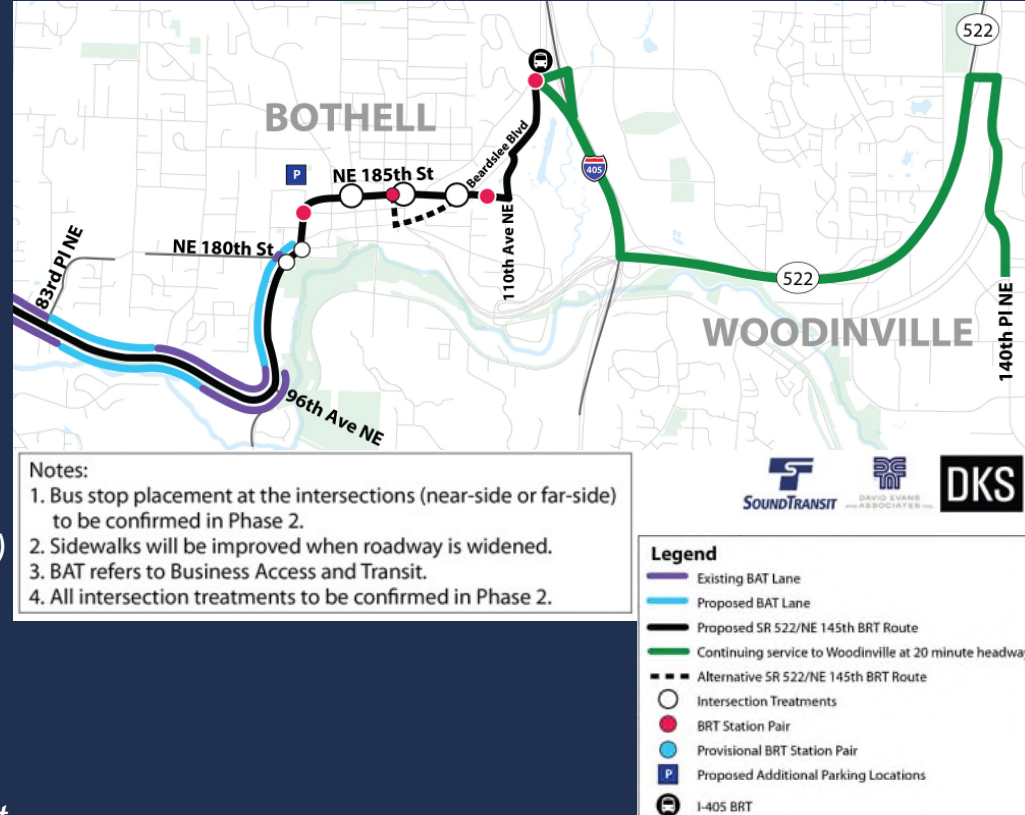
✓ Woodinville Service (Further study with KCM and City in Phase 2)



SR 522 & City Streets (Bothell & Woodinville)

Refined Project Elements

- ❖ **Elements Still Under Discussion**
 - NE 185th Street (Downtown Bothell) roadway improvements
 - Bothell Connection issues
 - Connection of BRT lines
 - Timing of WSDOT ETL project
 - Transit service options for downtown Bothell
- ❖ **Comments?**
 - *Temporary stops (like at I-405 & NE 195th) not supported by city of Bothell (to be discussed at pending workshop)*
 - *Global comment – look at affordable housing opportunities around parking garages*
 - *Based on I-405 ELG – optional routing not supported*



SR 522 (Kenmore)

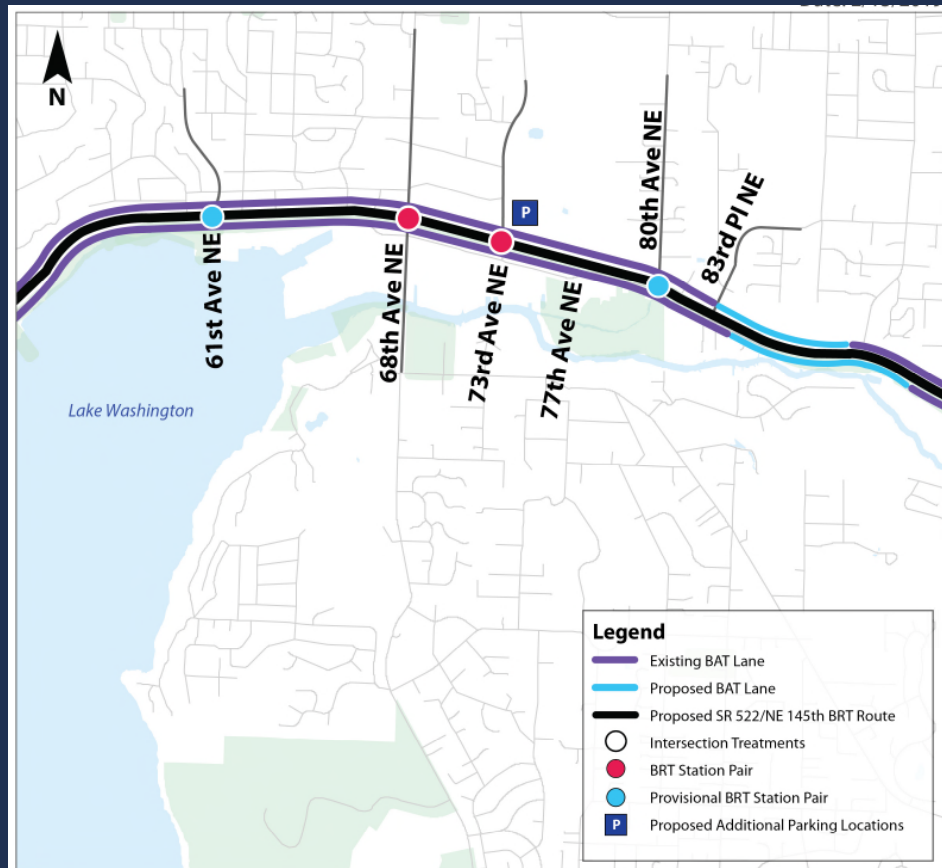
Refined Project Elements

✓ BRT stations:

- On SR 522 at 68th
- On SR 522 at 73rd/Kenmore Park & Ride
- On SR 522 at 61st (*provisional*)
- On SR 522 at 80th (*provisional*)

✓ Access Improvements

- 300-space parking garage at the Kenmore Park & Ride
- Contribution toward a pedestrian crossing near Park & Ride



Notes:

1. Bus stop placement at the intersections (near-side or far-side) to be confirmed in Phase 2.
2. Sidewalks will be improved when roadway is widened.
3. BAT refers to Business Access and Transit.
4. All intersection treatments to be confirmed in Phase 2.



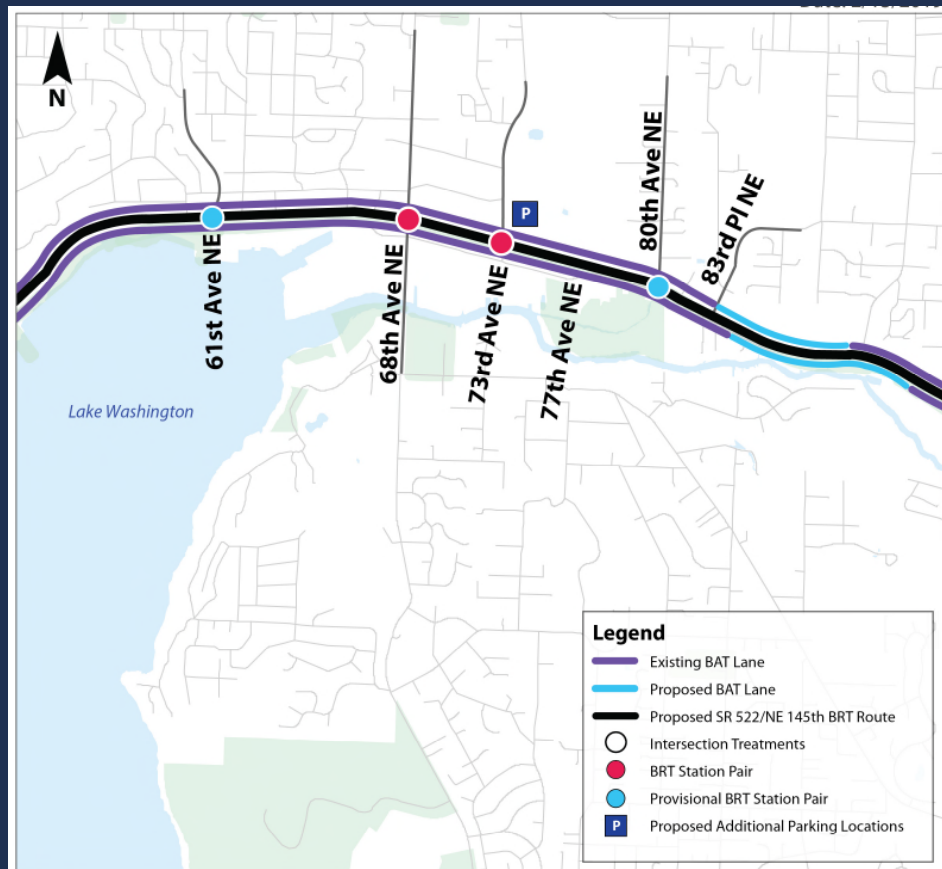
SR 522 (Kenmore)

Refined Project Elements

❖ Elements Still Under Discussion

❖ Comments?

- *Watch ridership versus efficiency (in speed and reliability) when adding stations*



Notes:

1. Bus stop placement at the intersections (near-side or far-side) to be confirmed in Phase 2.
2. Sidewalks will be improved when roadway is widened.
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SR 522 (Lake Forest Park)

Refined Project Elements

✓ BRT stations

- On SR 522 at NE 153rd
- On SR 522 at NE 165th (*provisional*)
- On SR 522 at Lake Forest Park Town Center

✓ Roadway Improvements

- Continuous BAT Lanes through LFP
- Utilizes the existing two way left turn lane

✓ Access Improvements

- Sidewalk with new lake-side BAT Lane
- 300-space parking garage at LFP Town Center



Notes:

1. Bus stop placement at the intersections (near-side or far-side) to be confirmed in Phase 2.
2. Sidewalks will be improved when roadway is widened.
3. BAT refers to Business Access and Transit.
4. All intersection treatments to be confirmed in Phase 2.

SR 522 (Lake Forest Park)

Refined Project Elements

❖ Elements Still Under Discussion

❖ Comments?

- *NE 165th provisional station very important*
- *Balancing investments along corridor to preserve speed and reliability – be cautious about where investments go*



NE 145th (Shoreline/Seattle)

Refined Project Elements



✓ BRT stations:

- At Shoreline South/NE 145th Link station
- On NE 145th at 15th Ave NE
- On NE 145th at 25th Ave NE (*further study in Phase 2*)
- At SR 522/NE 145th intersection

✓ Roadway Improvements

- Westbound BAT lane ~17th to 5th NE
- Eastbound ~12th NE to 17th NE
- Intersection improvements at 25th NE
- Eastbound ~ 30th NE to SR 522

✓ Access Improvements

- New sidewalks where roadway is widened

NE 145th (Shoreline/Seattle)

Refined Project Elements



- ❖ **Elements Still Under Discussion**
 - Coordinate with partners on intersection treatment at NE 145th and 5th (Shoreline/Seattle/WSDOT)
 - Complete Intersection Control Evaluation (ICE) study for NE 145th
- ❖ **Comments?**
 - *Ensure that capital investments along NE 145th are future-proofed and efficient in light of future plans*

Potential Future Corridor Improvements Beyond Refined Project Scope

- **Roadway Improvements**

- South side of intersection of NE 145th & SR 522 (Seattle/WSDOT)

- **Access Improvements**

- Additional sidewalks and pedestrian crossings (Shoreline/Seattle, Lake Forest Park)

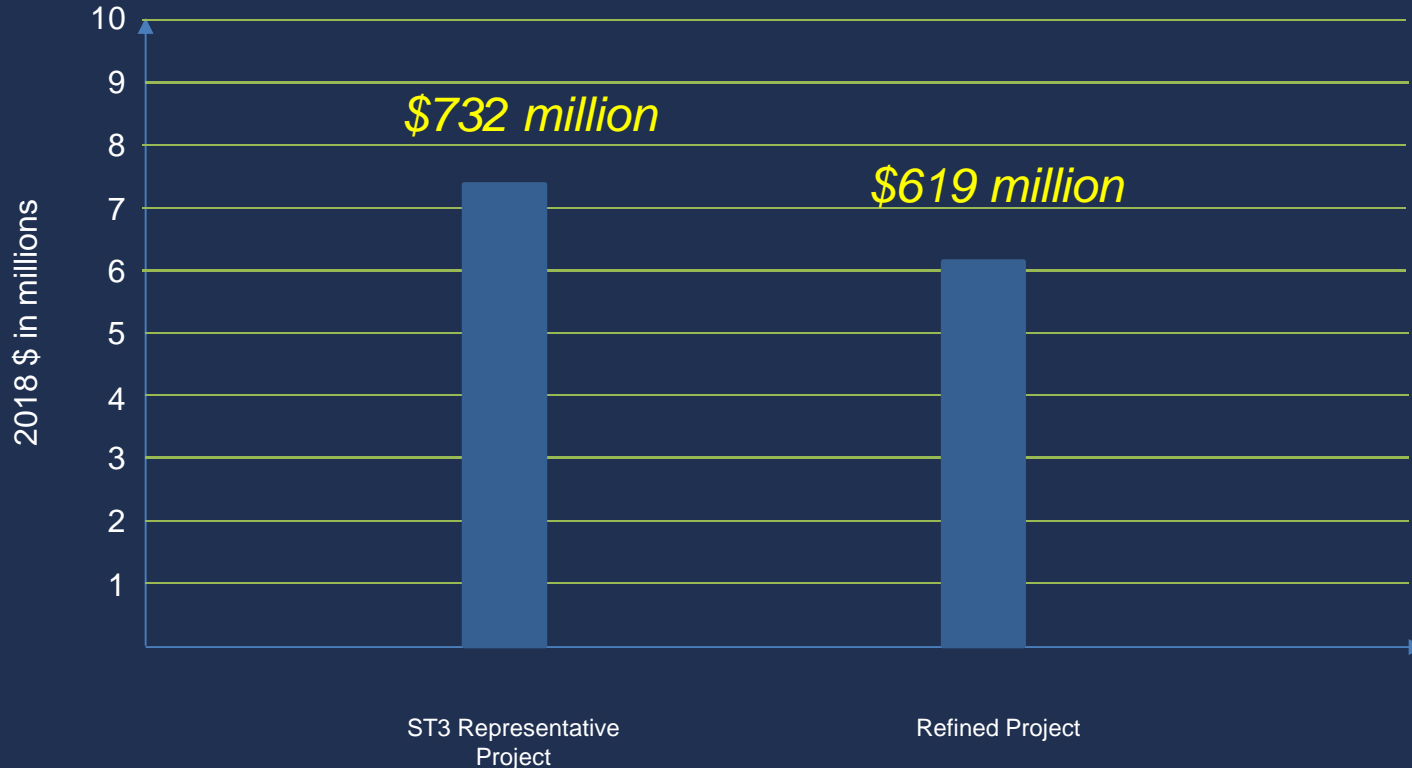
- **Provisional Stations**

- NE 165th (LFP)
- 61st Ave NE (Kenmore)
- 80th Ave NE (Kenmore)

Preliminary Estimate

- Using **consistent** methodology
 - 2018\$; construction, real estate, etc.
- Based on **limited design** (1-2%)
 - 2018\$; updated construction figures, updated real estate, etc.
- Estimates **do not** establish project budget
 - Project budget established during final design

Preliminary Estimate



Estimates based on limited conceptual design to compare project elements. Project budget established during final design.

Preliminary Estimate

Key Drivers

- Property Acquisition
- Construction/Design, market conditions:
 - Structured Parking construction
 - Bridge Structures for stream crossings
 - System needs (rider information, etc.)
 - BRT station refinements (e.g., double platforms)
 - Streetscaping

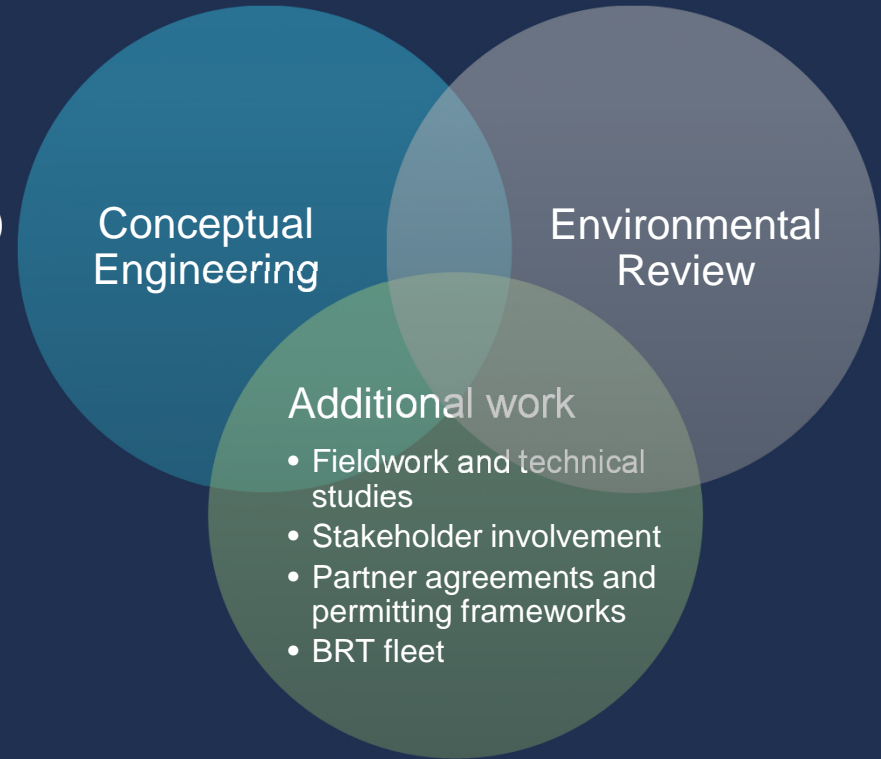




Next Steps

• *Next steps*

- ST System Expansion Committee (SEC) Meeting March 14:
 - SEC authorizes consultant contract for Phase 2 (Conceptual Engineering and Environmental Review of refined project)
- Phase 2: Conceptual Engineering and Environmental Review
 - Conceptual engineering feeds into environmental review documentation
 - Continued work with IAG, CMG, and ELG around key milestones
 - Ongoing outreach and communication
 - Property owners
 - Stakeholders
 - General public



Project Partnerships

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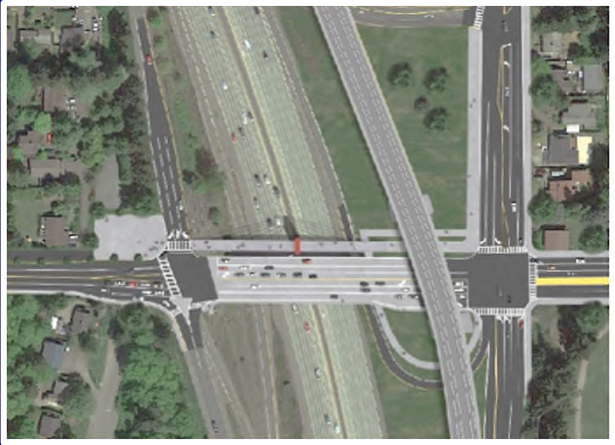
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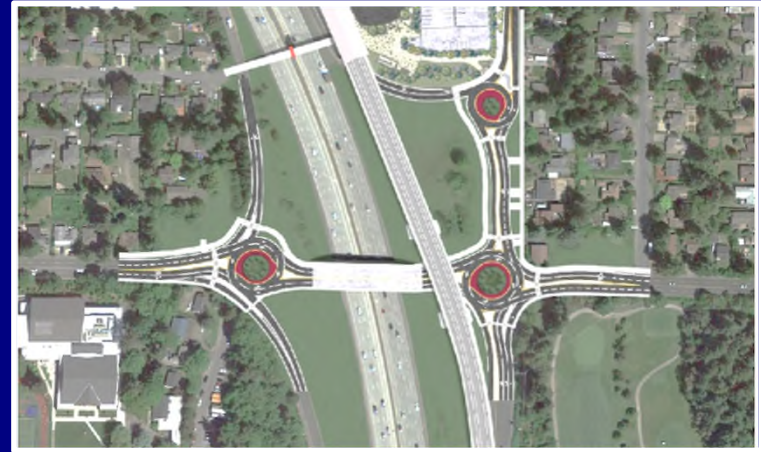
145th Interchange Improvements

- The City of Shoreline began design of the 145th and I-5 Interchange Project in 2018
- For WSDOT design approval, WSDOT asked the City to evaluate roundabouts



Original Concept:

- Repurposed bridge deck
- New pedestrian bridge
- New northbound on-ramp
- \$28 M



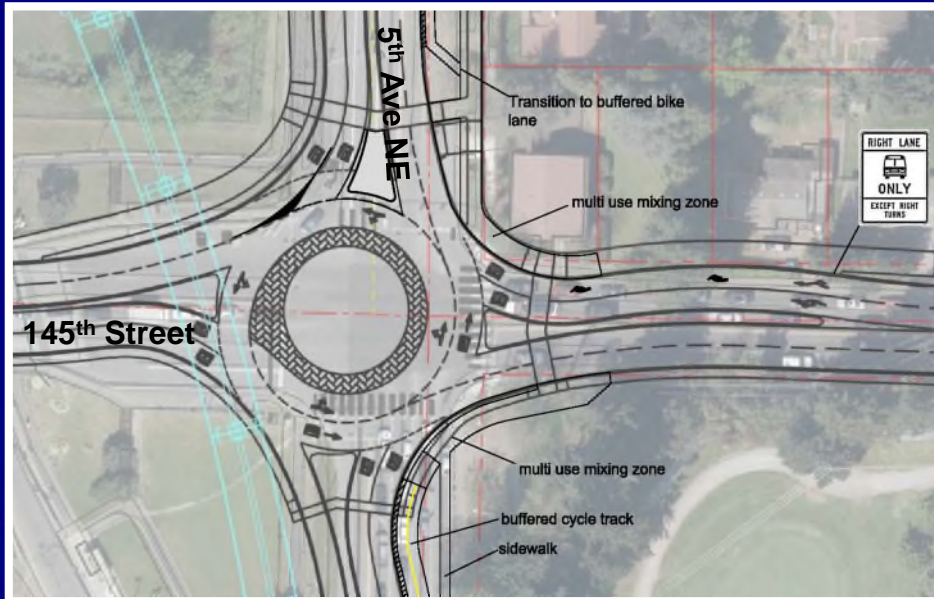
Roundabouts Concept

- 3 multi-lane roundabouts
- Repurposed bridge deck
- 13 foot sidewalk on northside of bridge
- \$23 M

145th Interchange Roundabout Discussion

Roundabout Benefits

- Improved safety - lower travel speeds, no light to beat, less conflict points
- Less delay, improved traffic flow
- Less expensive to maintain



Benefits to Transit

- 15-60 seconds less delay per bus in comparison to signalized intersection alternatives.
- Speed/reliability can be further improved by designating westbound right lane as BAT.

Roundabouts & Pedestrian Safety

- Roundabouts typically achieve 40% reduction in pedestrian collisions.
- A five year history at 11 urban roundabouts in WA state showed just 2 pedestrian collisions.
- With supplemental pedestrian treatments, pedestrian visibility is better in comparison to signalized intersections.



Any Questions?

