

JOINT TRANSPORTATION COMMITTEE

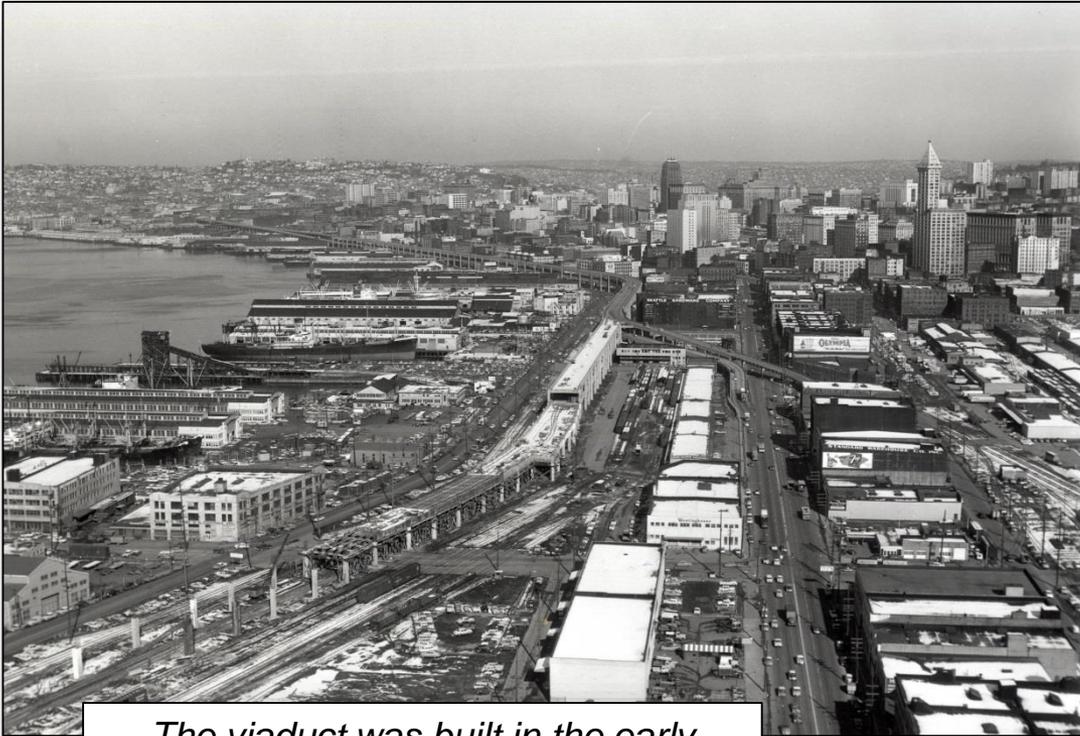
ALASKAN WAY VIADUCT REPLACEMENT PROGRAM UPDATE

BRIAN NIELSEN, Program Administrator
December 13, 2018

Roger Millar, Secretary of Transportation

Keith Metcalf, Deputy Secretary of Transportation

THIS IS A SAFETY PROJECT



The viaduct was built in the early 1950's



Columns reinforced after 2001 earthquake

COMPLETED PROJECTS



| South-end replacement | Start | End |
|------------------------------|-------|------|
| Electrical line relocation ✓ | 2008 | 2009 |
| Holgate to King (stage 1) ✓ | 2009 | 2009 |
| Holgate to King (stage 2) ✓ | 2010 | 2012 |
| Holgate to King (Stage 3) ✓ | 2012 | 2014 |

¹ Per City of Seattle's Waterfront Seattle schedule

² Per Seattle Tunnel Partners' most recent schedule

³ Partially funded by the state

⁴ Per 2014 legislation, additional mitigation funding is being provided by WSDOT from funds outside the AWV Program

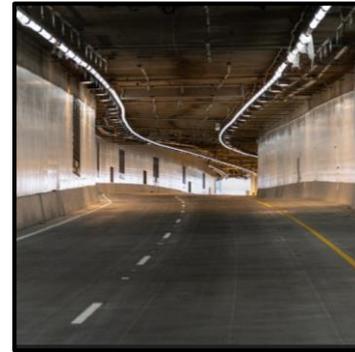
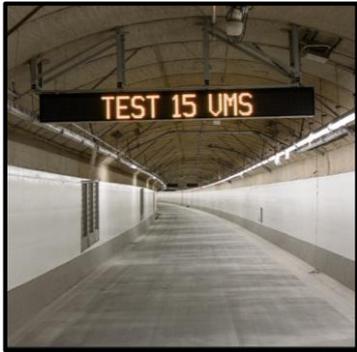
| SR 99 tunnel | Start | End |
|--|-------|------|
| SR 99 tunnel main contract ✓ | 2011 | 2018 |
| North Access Project ✓ | 2014 | 2017 |
| South Access – SR 99 Connections ✓ | 2018 | 2019 |
| South Access – Surface Street Connections | 2019 | 2020 |
| South Access (S. Dearborn Street off-ramp) ✓ | 2016 | 2017 |
| South Access (drilled shafts) ✓ | 2014 | 2014 |

✓ = completed project □ = in progress

| Miscellaneous projects | Start | End |
|--|-------|------|
| Trager Building demolition ✓ | 2007 | 2007 |
| Viaduct column stabilization near Yesler Way ✓ | 2007 | 2008 |
| WOSCA Building demolition ✓ | 2009 | 2009 |
| Pier 48 warehouse demolition ✓ | 2010 | 2010 |
| Automated viaduct closure gates ✓ | 2010 | 2011 |
| Western Building structural work ✓ | 2011 | 2017 |
| SR 99 south-end fiber replacement ✓ | 2011 | 2011 |
| Alaskan Way widening ✓ | 2012 | 2012 |
| Cedarstrand Building demolition ✓ | 2012 | 2012 |
| SR 99 Demolition, Decommissioning and Surface Street | 2018 | 2020 |
| New Alaskan Way ¹ | 2019 | 2023 |

| Mitigation projects | Start | End |
|--|-------|------|
| SR 519 Phase 2 ✓ | 2008 | 2010 |
| Spokane Street Viaduct Fourth Ave. off-ramp ³ ✓ | 2008 | 2010 |
| I-5 active traffic management ✓ | 2009 | 2010 |
| I-5 active traffic management sign bridges ✓ | 2009 | 2009 |
| I-5 travel time signs ✓ | 2009 | 2009 |
| City street intelligent transportation systems ✓ | 2009 | 2010 |
| SR 99 intelligent transportation systems ✓ | 2010 | 2011 |
| Enhanced transit/demand management ⁴ ✓ | 2010 | 2014 |
| Parking mitigation for central waterfront ✓ | 2011 | 2019 |

PROGRAM SCHEDULE



2018

Early 2019

Tunnel preparation

Fall 2018:

- Switch Alaskan Way travel lanes west (complete)
- Complete tunnel systems testing
- Operations, maintenance and emergency responder staff training
- Preparatory tunnel on- and off-ramp work

SR 99 closure

Jan. 4:

- On- and off-ramps near stadiums close

Jan. 11:

- Full SR 99 closure begins
- Finish eight ramps to/from new tunnel
- Realign SR 99 into new tunnel
- Tunnel grand opening celebration

Tunnel opens

Feb*:

- Closure ends and SR 99 tunnel opens
- SR 99 NB off-ramp to downtown and Alaskan Way opens

Work begins

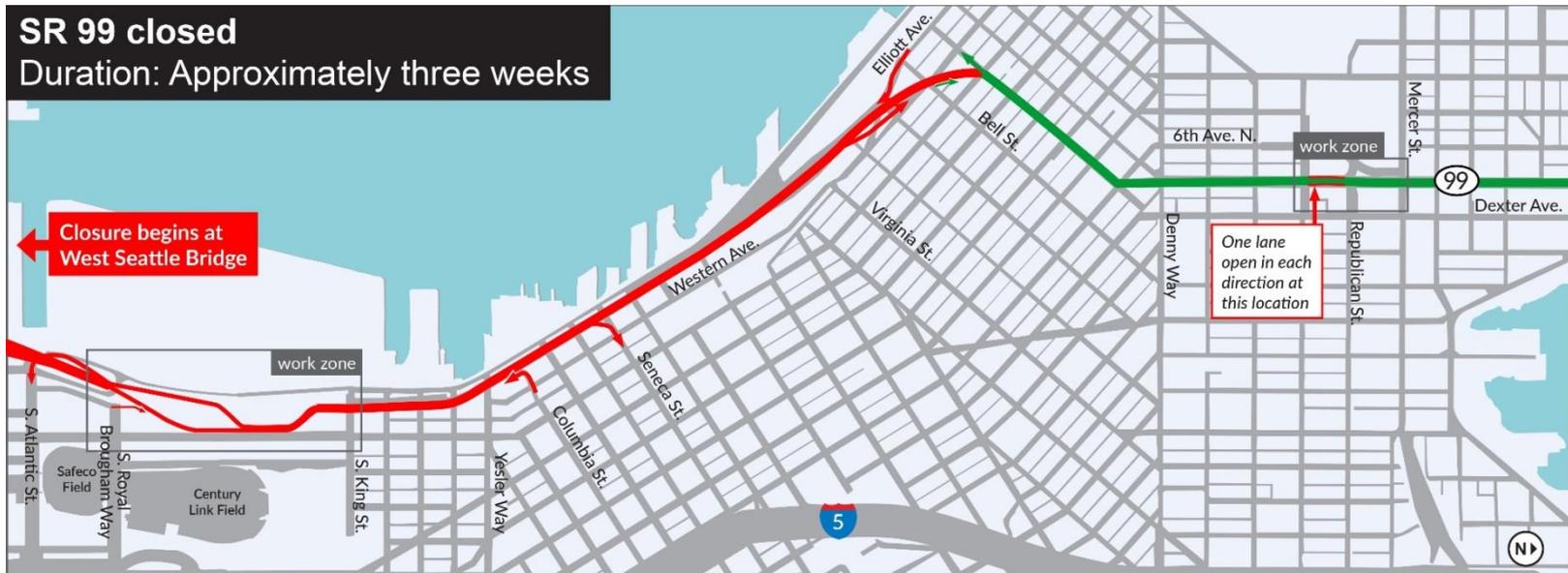
Feb*:

- Viaduct removal
- Closing and filling Battery Street Tunnel
- Rebuilding three blocks of Aurora Avenue North

*Closure is approximately three weeks long but duration will depend on progress.

SR 99 CLOSURE

- **Duration:** about three-weeks for SR 99 closure and up to three weeks of ramp closures
- **Closing a highway adds more drivers to other parts of the system:** 90,000 vehicles per day, including several thousand trucks, and buses have to use another route
- **Expect long backups:** On I-5 and routes into downtown Seattle, especially during peak commute times
- **Major change to transportation system:** New SR 99 tunnel will open, other construction continues



SR 99 CLOSURE: WHEN AND WHY

When

The closure will begin on Jan. 11, 2019: The closure will take place just before the new SR 99 tunnel opens.

Why

Connecting SR 99 to the tunnel: Crews will have to work in the path of SR 99's current configuration to connect SR 99 to the new tunnel. The graphics below show the path of SR 99 today (yellow) and work zones during the closure (orange).



South SR 99 tunnel portal



North SR 99 tunnel portal

SR 99 CLOSURE AND TUNNEL OPENING: GET READY

Keeping people and goods moving

- WSDOT, SDOT, Port of Seattle, King County Metro, Sound Transit implementing transportation management strategies.
- Incident response teams, increased staffing in transportation management centers, signal timing plans, uniformed police officers at key intersections, additional water taxi runs, standby Metro coaches, and more.
- Actively monitoring the transportation system.

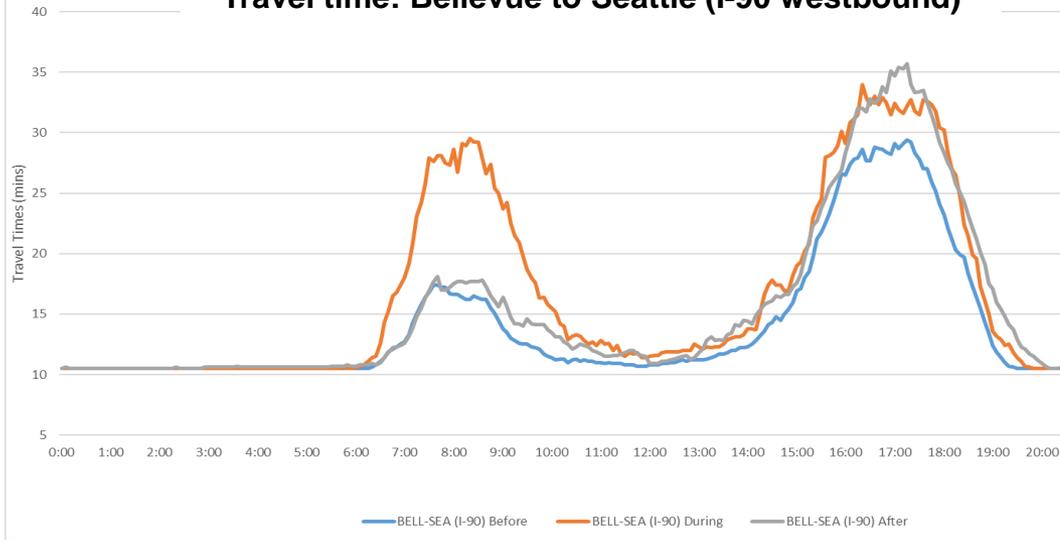
We need the public's help: make a plan for #Realign99

- Shift your travel time
- Carpool or vanpool
- Use transit, particularly light rail and King County Water Taxi
- Stay off the road: work from home, postpone discretionary trips, take time off, if you can
- Bike or walk
- Be prepared for your new route when the SR 99 tunnel opens

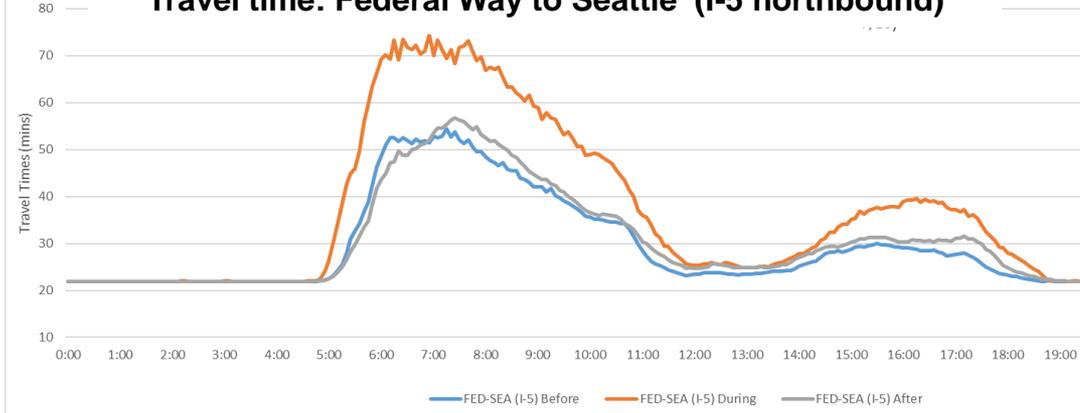


REGION-WIDE TRAFFIC EFFECTS

Travel time: Bellevue to Seattle (I-90 westbound)



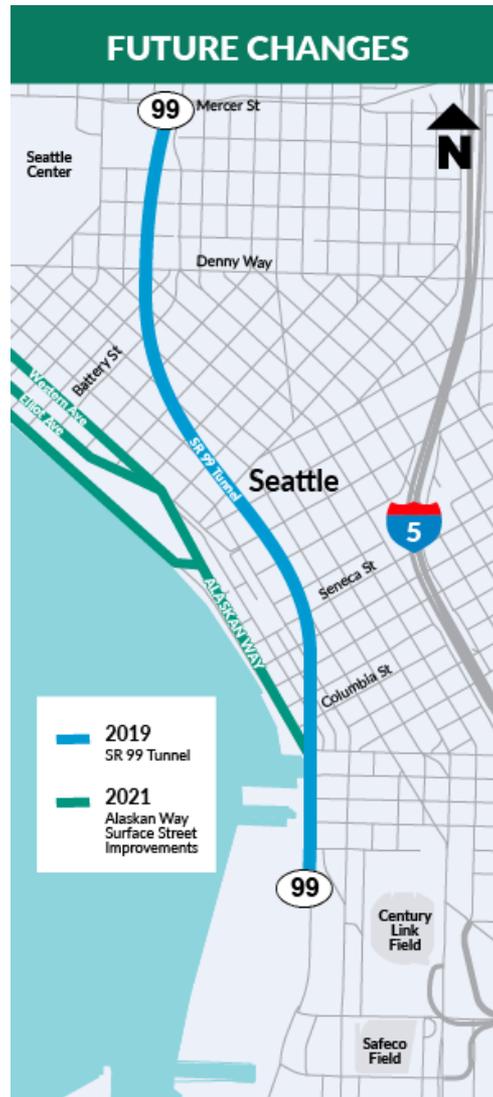
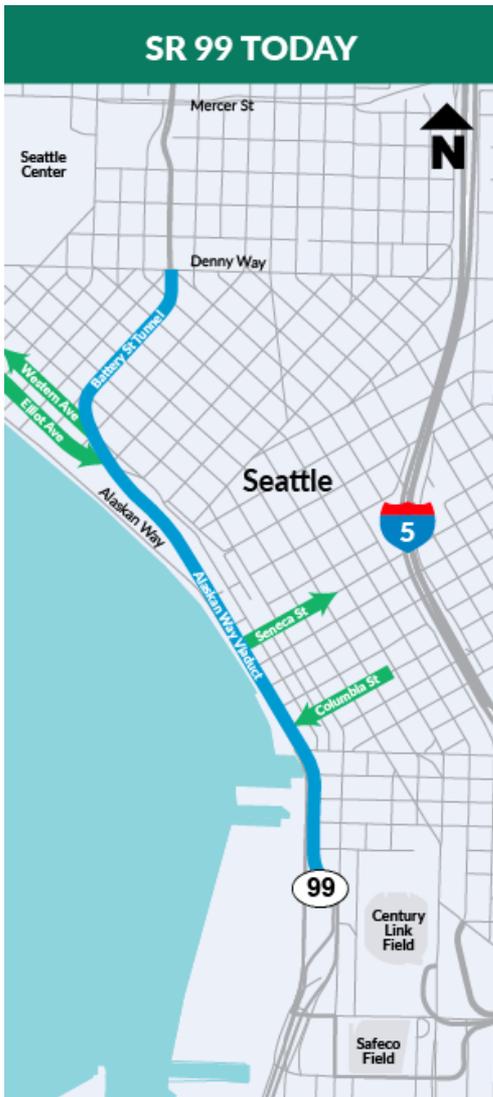
Travel time: Federal Way to Seattle (I-5 northbound)



What we experienced during nine-day SR 99 closure in 2016

- Region-wide impacts: higher travel times on I-5, SR 520, I-90
- Peak commutes started earlier and lasted longer
- More vehicles on downtown streets
- Sound Transit commuter rail ridership increased by 5 to 10%
- West Seattle water taxi ridership increased 135%, Vashon passenger ferry service increased by 27%
- Longer travel times for King County Metro buses rerouted off SR 99
- More cyclists on the road to avoid congestion

CHANGING TRAFFIC PATTERNS



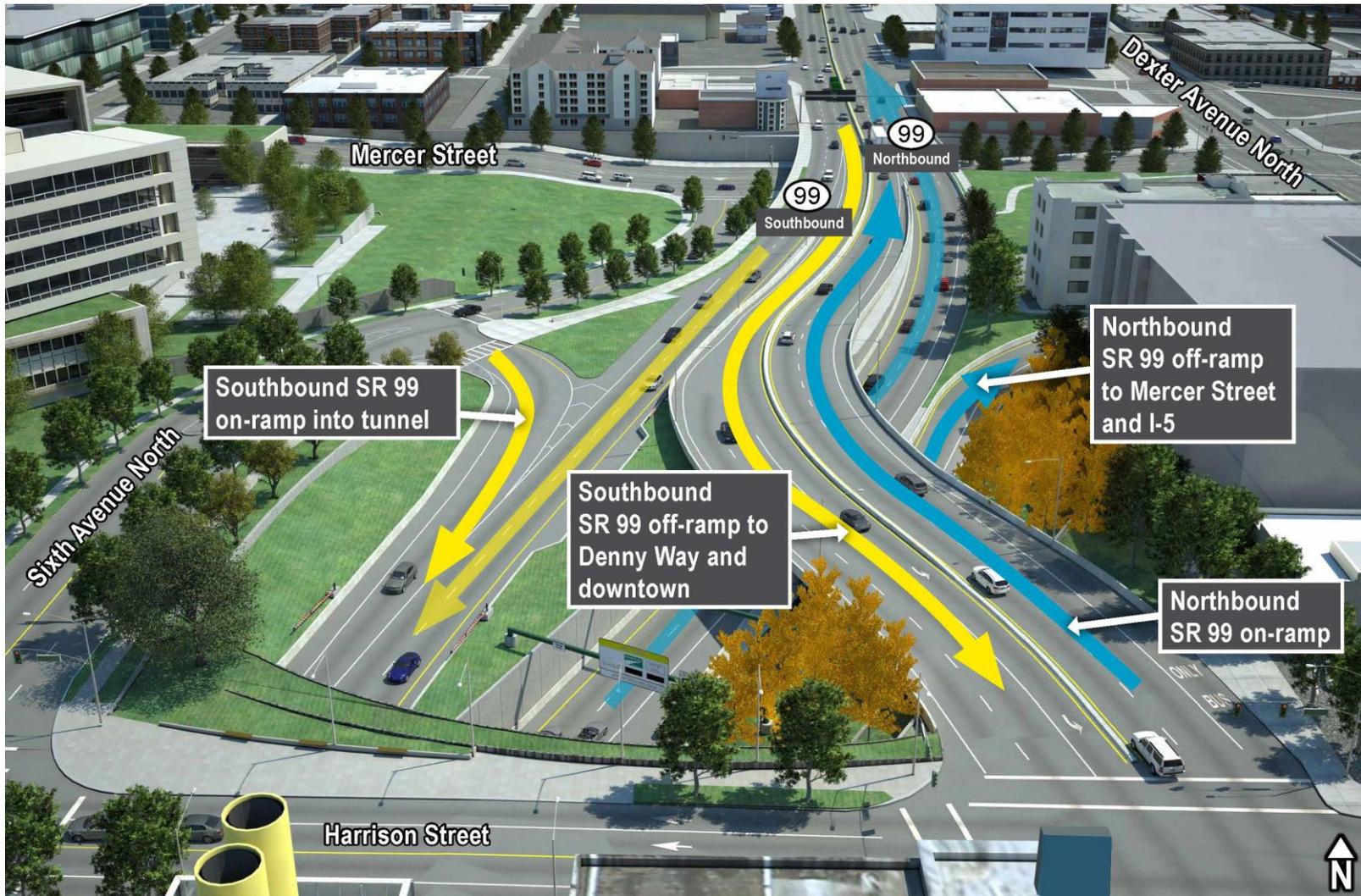
Opening the new SR 99 tunnel is just the start:

- Tunnel will open toll-free for a period of time.
- Traffic patterns will change because we are changing access to SR 99.
- Construction continues after the tunnel opens to drivers.

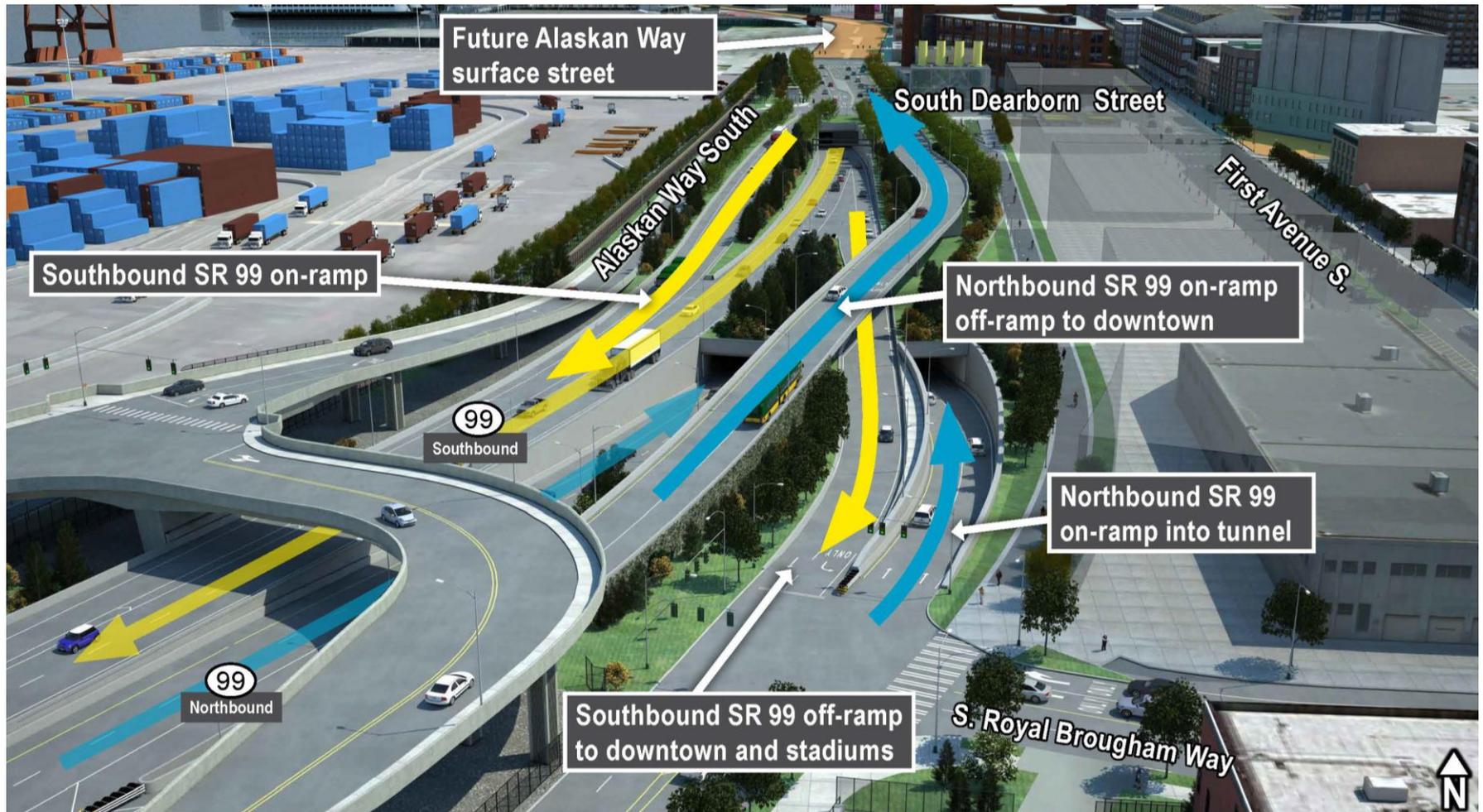
Seattle will experience ongoing change:

- It will take time before traffic patterns settle out.
- Tolls range from \$1 to \$2.25 with a *Good To Go* pass.
- Some trips will be quicker and others will be longer.
- The City will rebuild the new Alaskan Way, which will open in 2021.

NEW RAMPS AT THE NORTH PORTAL



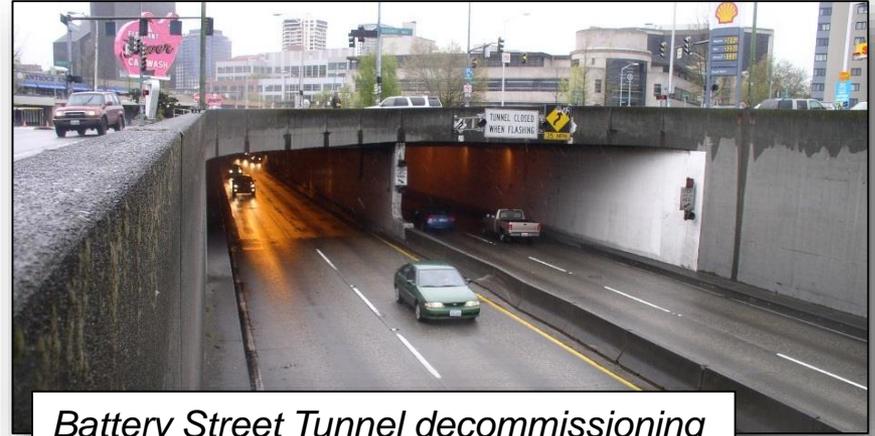
NEW RAMPS AT THE SOUTH PORTAL



CONSTRUCTION AFTER THE SR 99 TUNNEL OPENS



Alaskan Way Viaduct removal



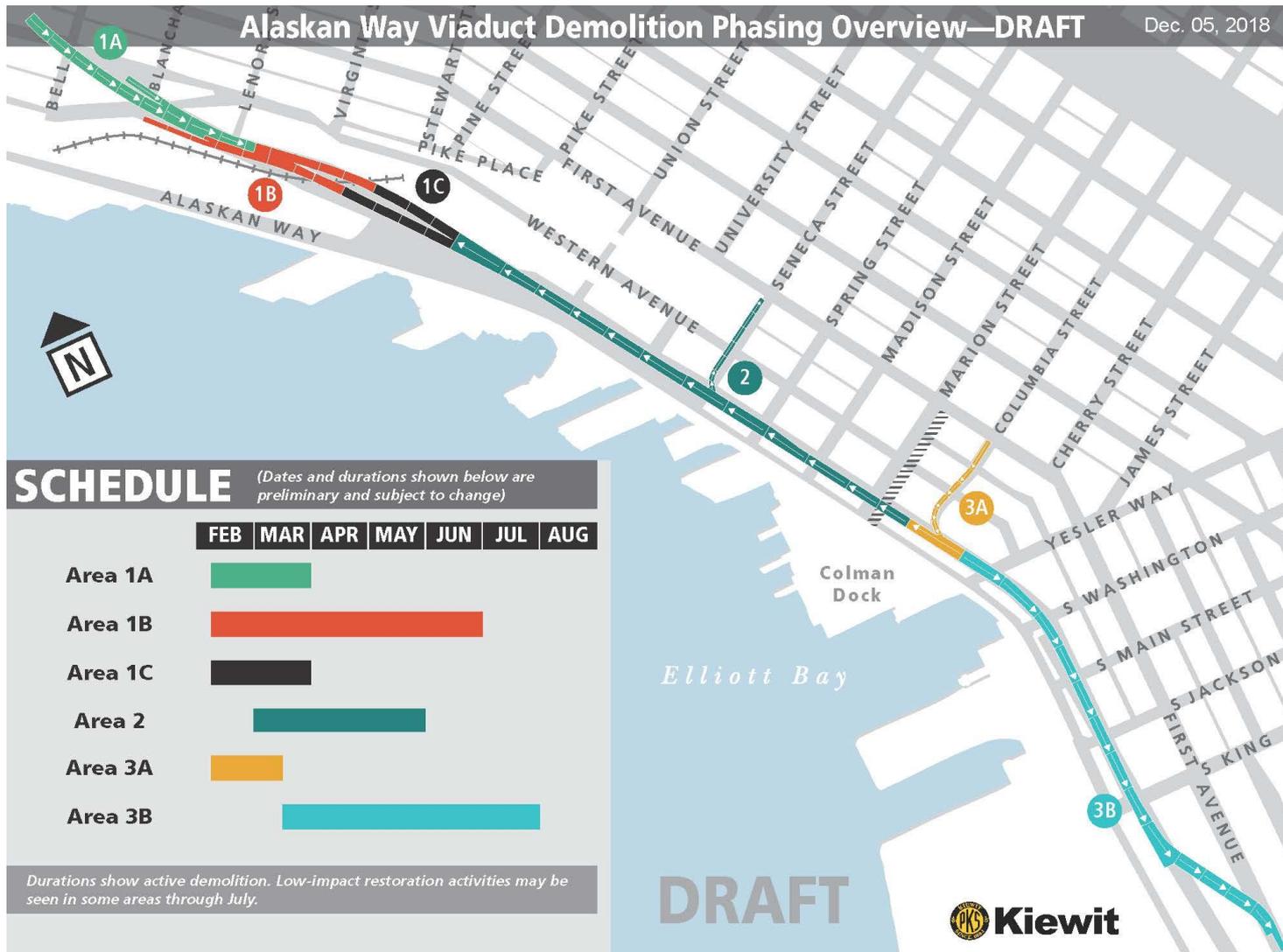
Battery Street Tunnel decommissioning



North surface street connections

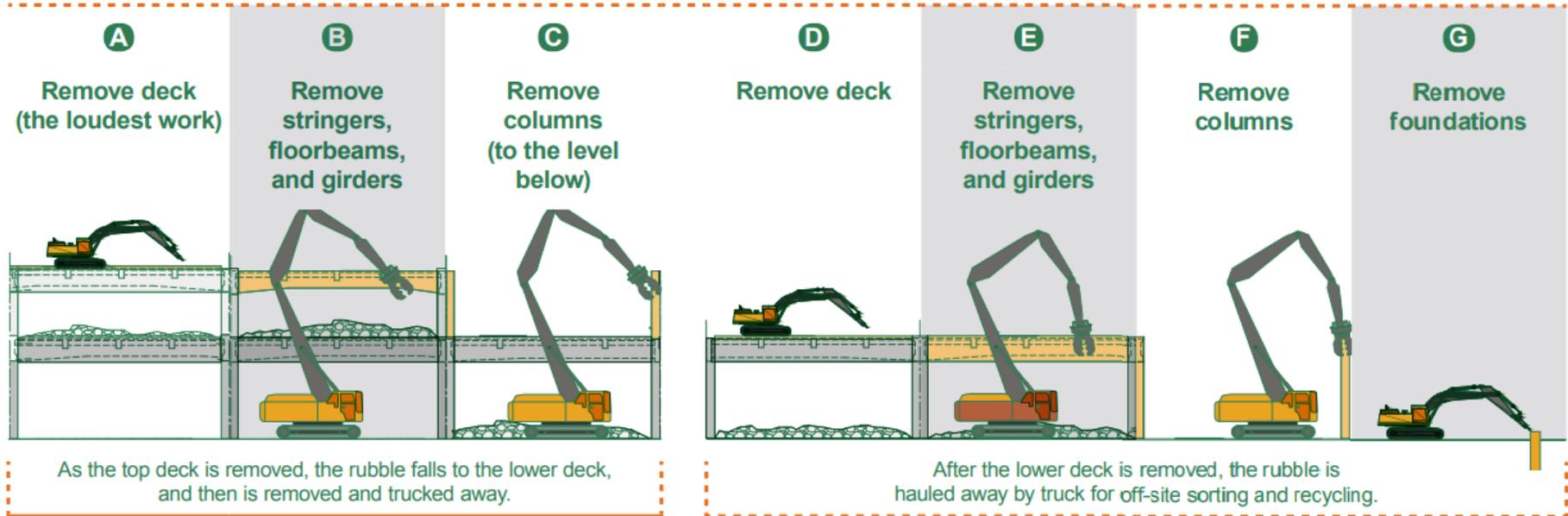
- Design-build contract
- Kiewit Infrastructure West Co.

VIADUCT DEMOLITION



VIADUCT DEMOLITION

The viaduct will be removed one frame at a time. Most frames will be prepped, demolished and cleared within 30 days, following the sequence below:



Side view of the span removal process. A span is a section of the viaduct between columns. One frame is typically made up of three spans.

Scheduled for completion by summer 2019

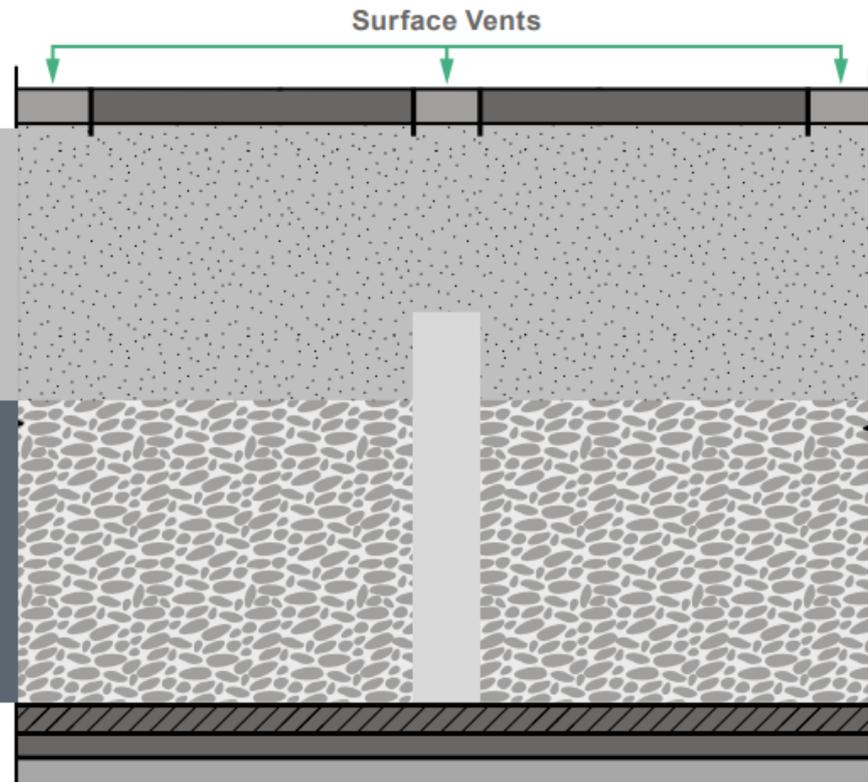
BATTERY STREET TUNNEL DECOMMISSIONING

PHASE 2

Low-density cellular concrete will be mixed nearby and then pumped into the tunnel through surface vents along Battery Street. Mixing concrete on-site will eliminate trucking 4,000 loads of concrete on local roads.

PHASE 1

Crews will fill the Battery Street Tunnel to about seven feet from its ceiling with viaduct rubble, from north to south. This material will be brought into the tunnel via the tunnel's south end and from the surface, and then compacted.



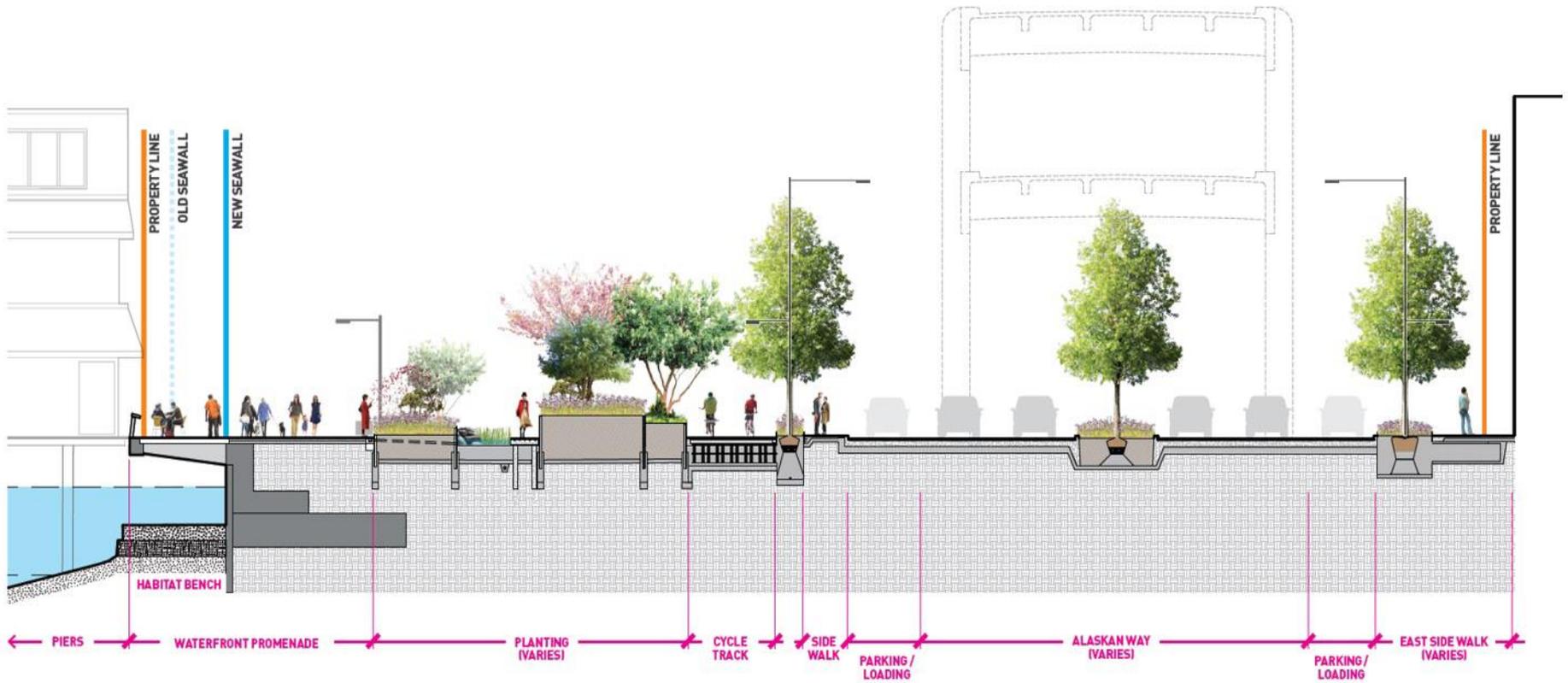
Scheduled for completion by early 2021

NORTH SURFACE STREET CONSTRUCTION



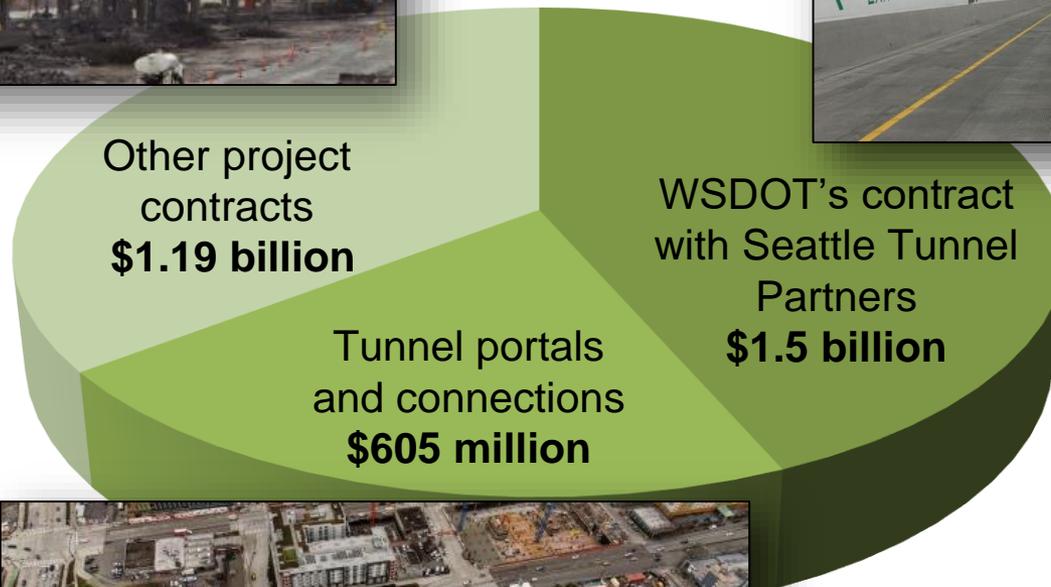
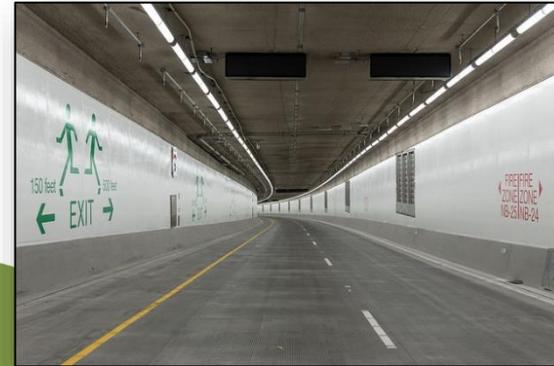
Scheduled for completion by spring 2020

THE FUTURE OF SEATTLE'S DOWNTOWN WATERFRONT



Courtesy of City of Seattle
Office of the Waterfront

BUDGET OVERVIEW



= \$3.3 billion

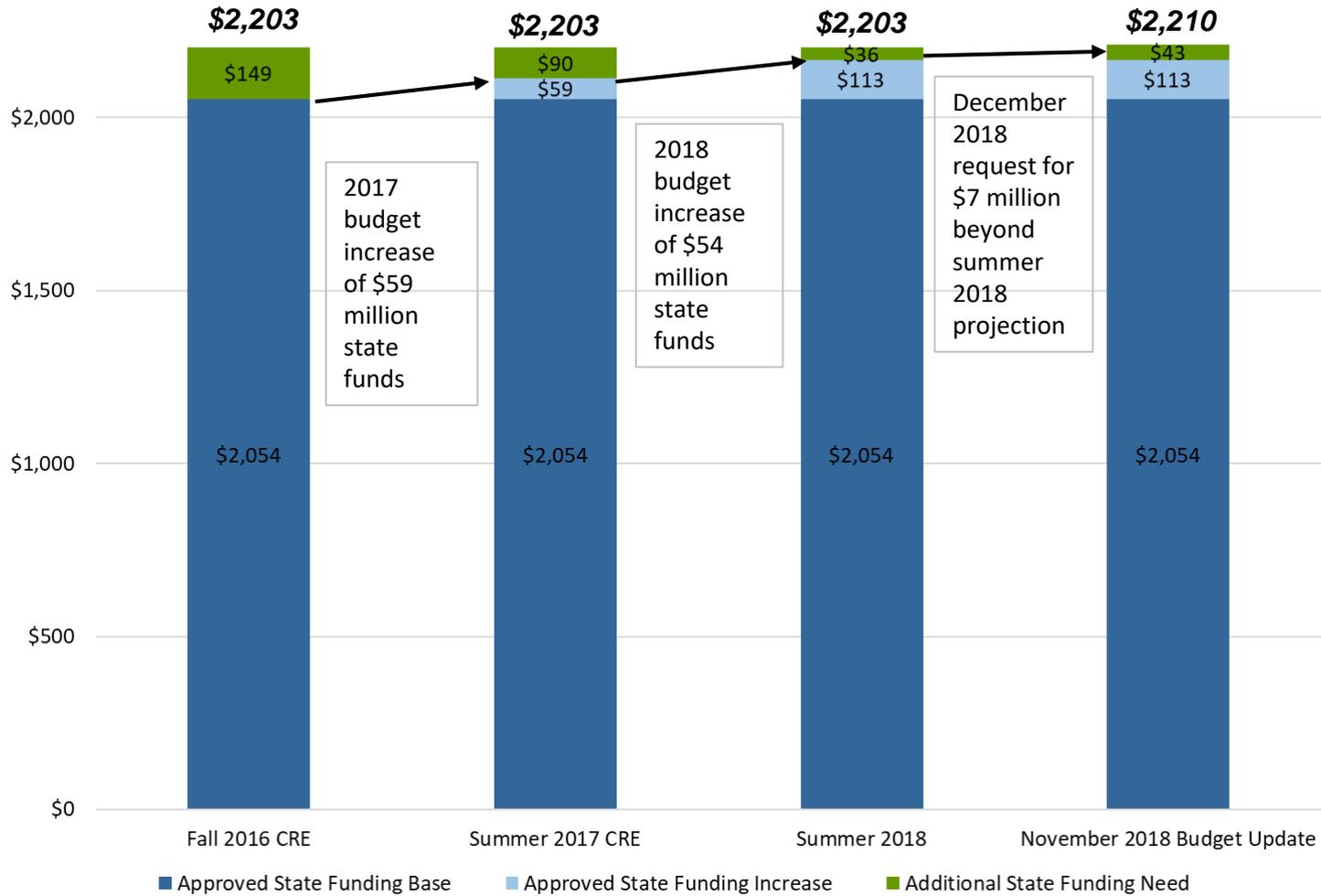
OVERALL BUDGET FORECAST PROGRESSION

\$ Million



STATE FUNDING PROGRESSION CHART

\$ Million
\$2,500



BUDGET NEEDED TO COMPLETE PROGRAM

Total budget need: \$43 million

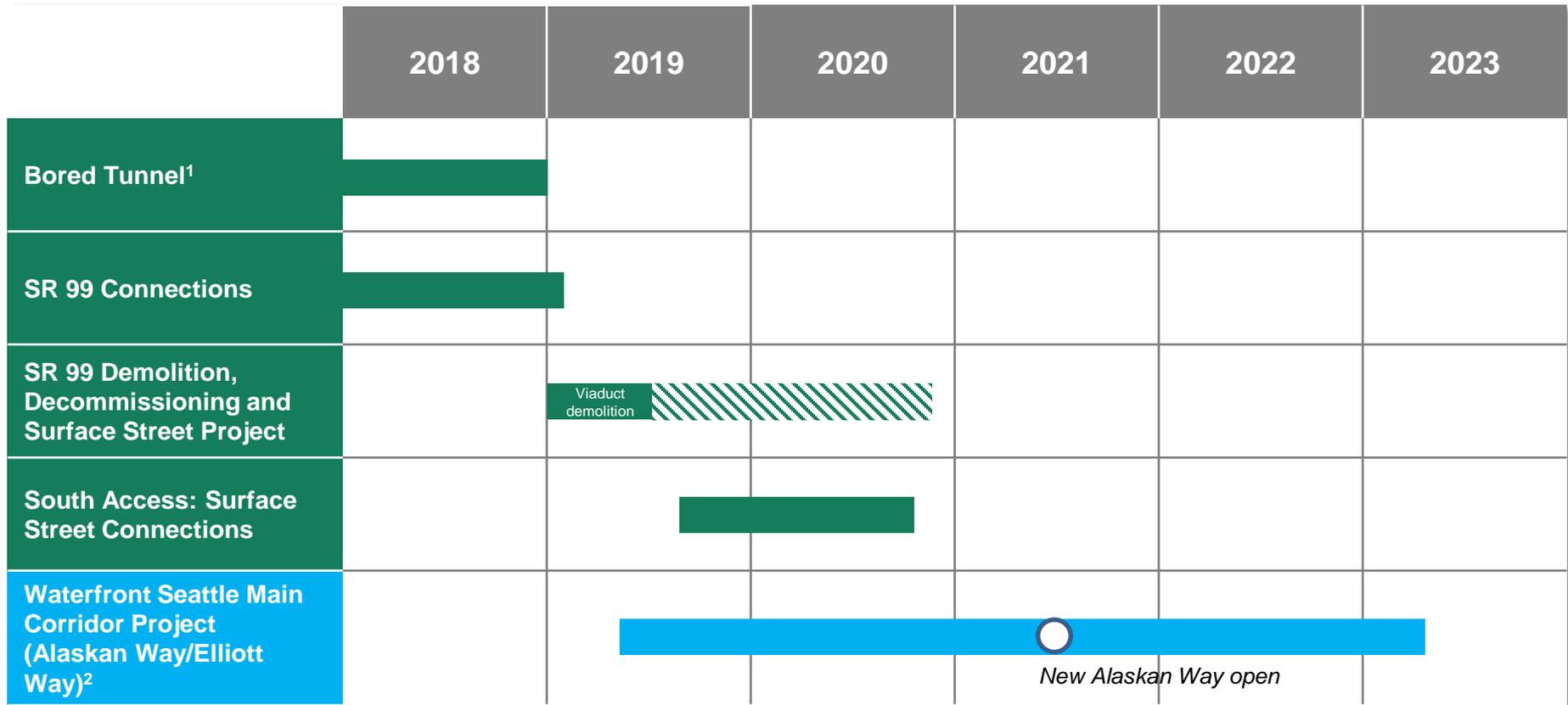
Cost risk evaluation

- Annual process to update base costs and evaluate risks
- Statistical modeling to assess programmatic risks

Remaining costs and risks:

- Market conditions for future contracts
- Ongoing negotiations with contractors
- Unforeseen construction issues, including work necessary to address impacts during the SR 99 closure and following tunnel opening

PROGRAM SCHEDULE



¹ Per Seattle Tunnel Partners' most recent schedule

² Per City of Seattle's Waterfront Seattle schedule

STEP FORWARD

Saturday, Feb. 2, 2019

- Fun run
- Ribbon cutting ceremony
- Public festival
- Public tunnel walk/access
- Goodbye to the viaduct/
hello waterfront

Sunday, Feb. 3, 2019

- Bike ride

Visit 99StepForward.com for more information



HOW TO REACH US



WSDOT Live Traffic Cameras

www.wsdot.com/traffic/seattle/default.aspx

WSDOT Travel Times

www.wsdot.com/traffic/travel-times/default.aspx

SDOT Traveler Information Map

web6.seattle.gov/travelers

Transit Alerts

kingcounty.gov/metro/signup

Travel News on Twitter

@WSDOT_traffic

@SDOTtraffic

@KCMetroBus

@SoundTransit

@MyCommTrans

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#Realign99

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