

# *West Seattle Link Extension*

*Board of Directors*

*9/26/2024*



# *Why we're here today*

- West Seattle Link Extension project background
- Final EIS alternatives and results
- Cost evolution
- Next steps

*No action today*

# *Where we've been / where we're going*

- ✓ **2019:** Board identified preferred alternatives and other alternatives to be studied in West Seattle and Ballard Link Extensions (WSBLE) Draft EIS
- ✓ **January 2022:** WSBLE Draft EIS published
- ✓ **July 2022:** Board identified West Seattle Link Extension (WSLE) preferred alternative and other alternatives to be studied in Final EIS
- ✓ **September 19, 2024:** Executive Committee Update on WSLE and Final EIS
- ✓ **September 20, 2024:** WSLE Final EIS publication
- **Today:** Board Update on WSLE and Final EIS
- **October 10, 2024:** SEC to consider recommendation of project to be built
- **October 24, 2024:** Board to consider action to select project to be built
- **Late 2024:** Anticipated Record of Decision (ROD) from Federal Transit Administration

***West Seattle Link Extension  
project background***



# West Seattle Link Extension

- ✓ Included in Sound Transit 3 (ST3) plan.
- ✓ Provide fast, reliable light rail connections in the SODO, Delridge and West Seattle neighborhoods.
- ✓ 4.1 miles of light rail service and serve 4 stations.



## Link light rail

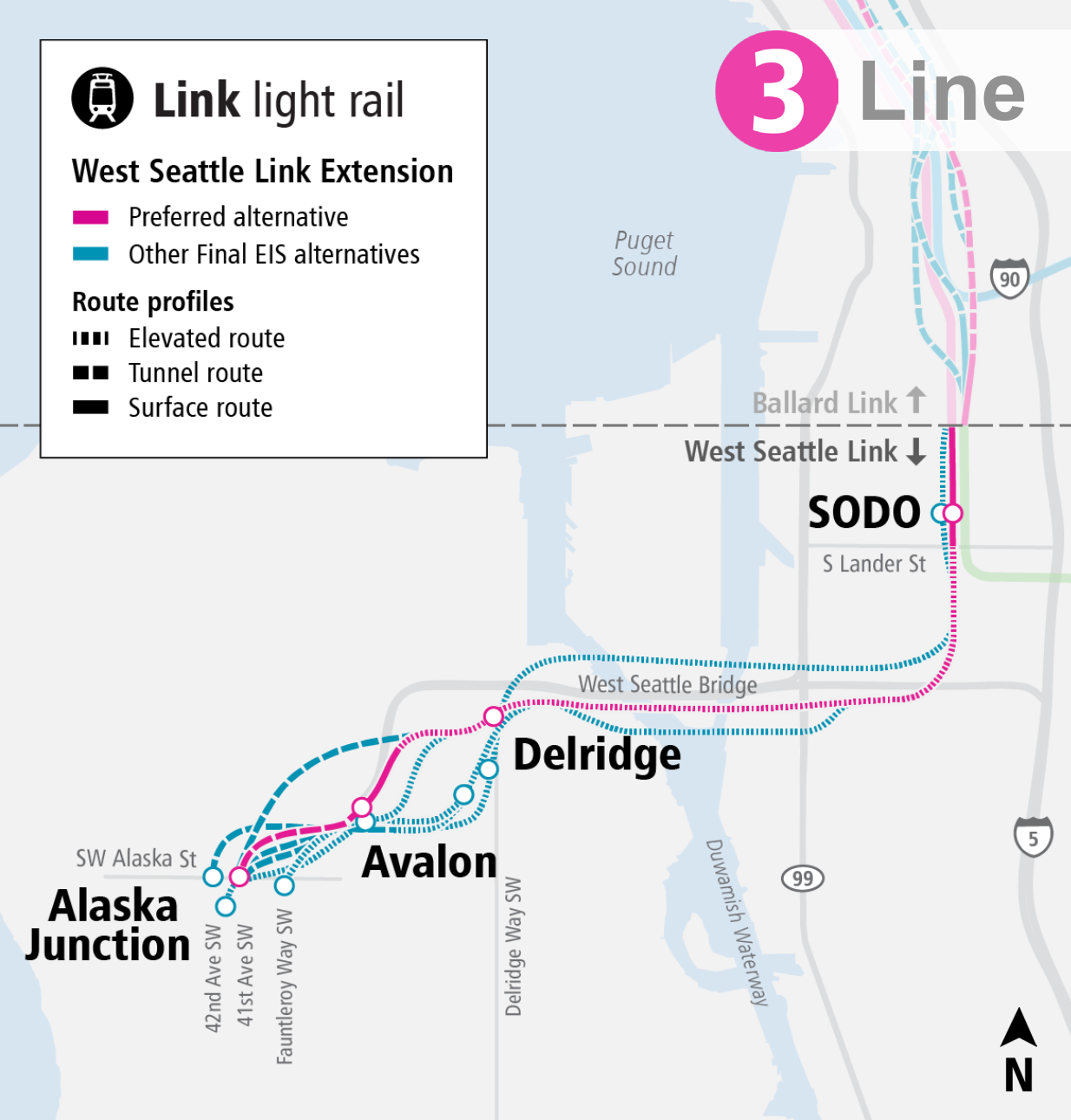
### West Seattle Link Extension

- Preferred alternative
- Other Final EIS alternatives

### Route profiles

- Elevated route
- Tunnel route
- Surface route

# 3 Line



## West Seattle Link Extension

- **Reduces transit travel time** from Alaska Junction to Westlake Station by 50% once Ballard Link Extension is complete.
- **Improves transit service frequency, reliability and capacity.**
- Facilitates redevelopment near stations, with focus on **affordable housing.**
- **Provides travel alternative** if West Seattle Bridge is congested or closed for repairs.
- **Facilitates future expansion** to south.

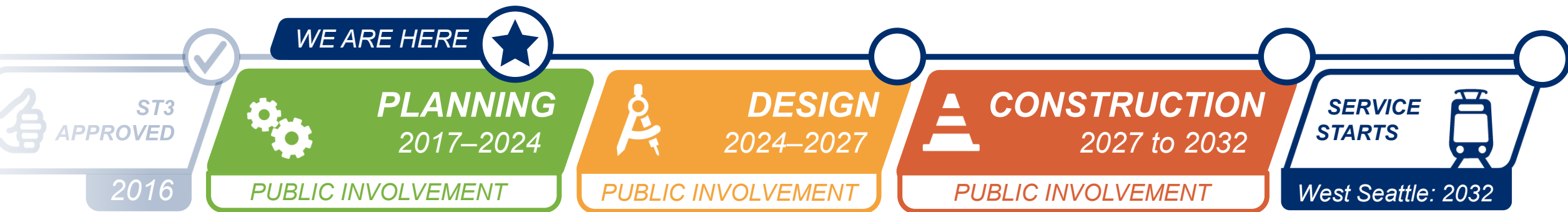
# West Seattle Link Extension

- Urban area that has experienced rapid growth over the past decade
- Varied topography and built environment, requiring work in and around poor soils, steep and unstable slopes, tribal fishing waterways, railroads, elevated roadways, and major utilities
- Requires high-level fixed bridge over Duwamish Waterway and Port of Seattle facilities
- **Highly complex environment for light rail expansion**



# West Seattle Link Extension

## Final EIS Project timeline







ST3  
APPROVED

2016



# PLANNING



DES

## 2017–2019

### Alternatives development

- ✓ Feb–March 2018: Early scoping
- ✓ Feb–April 2019: Scoping
- ✓ May–Oct 2019: Board identified preferred alternatives and other DEIS alternatives

## 2019–2024

### Environmental review

#### Early 2022: Publish Draft EIS

Public comment period

Board confirms or modifies preferred alternatives



#### 2024: Publish Final EIS

Board selects project to be built

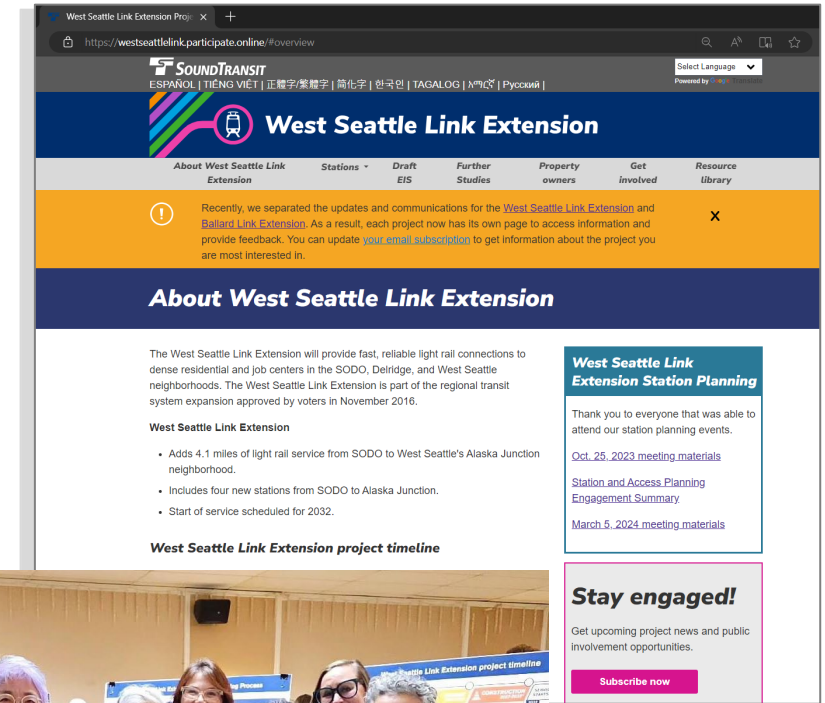
Federal Record of Decision

## PUBLIC INVOLVEMENT

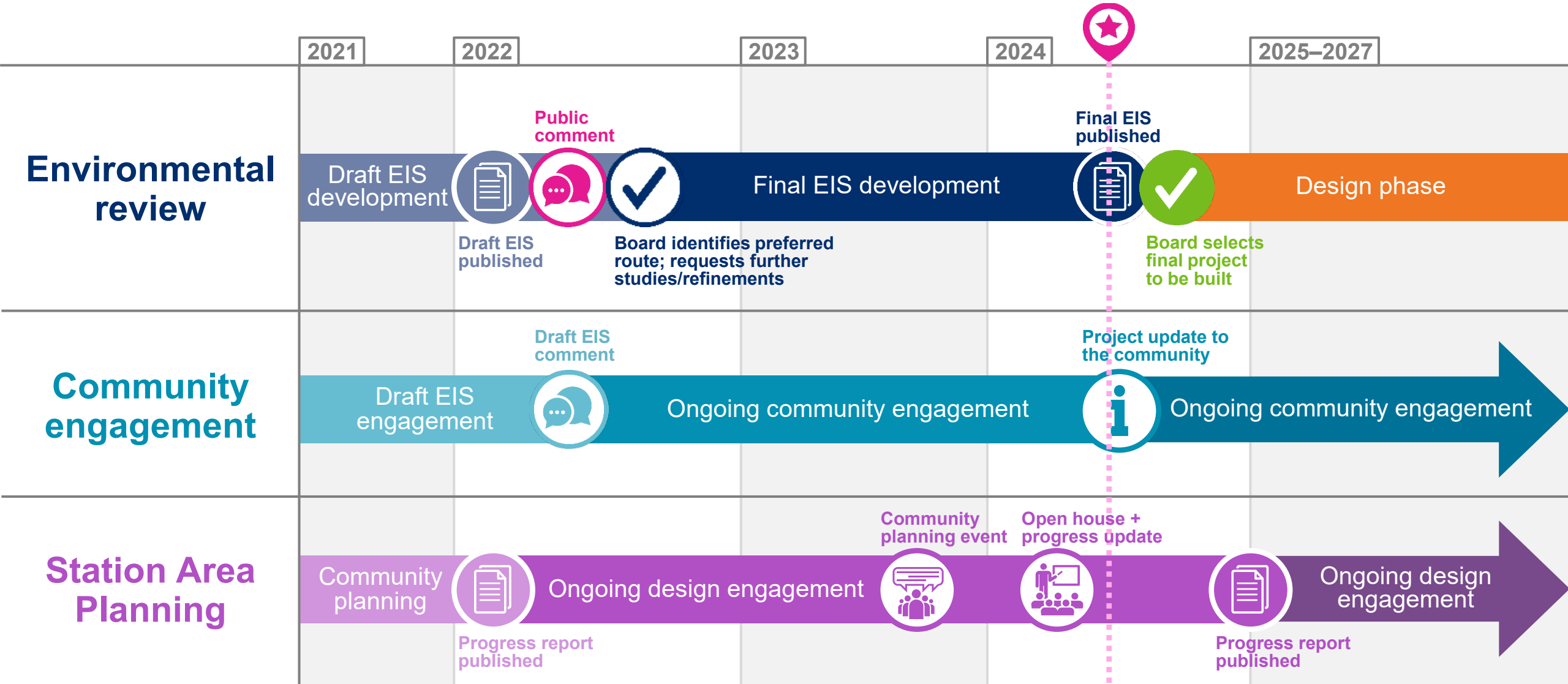
# Engaging community throughout planning

## Ways we've engaged

- Stakeholder and Community Advisory groups
- Community briefings with residents, businesses, community organizations, property owners and more
- **Public meetings:** Neighborhood forums, open houses, drop-in sessions
- **Online:** Project website, online open house, email updates, social media
- Community liaisons
- Translated materials and interpretation
- Door-to-door business outreach
- Fairs, festivals and other events



# Community Engagement schedule



# Draft EIS Comment Period Engagement



**5,195** Draft EIS comments



**5** Draft EIS public meetings



**1** online open house engaging more than  
**19,500** online visitors



**91** community briefings,  
office hours and workshops



**77** property owner webinars,  
office hours and meetings



**12** Community Advisory Group meetings



**Ads** featured on **30** unique radio,  
digital and print publications



**38** posts on social media platforms,  
with 140K+ impressions



**62** Fairs, festivals and other  
tabling events



**8** email updates engaging more than  
and blog posts **10,900** subscribers



**1,200+** posters delivered along  
the corridor



**11** Community liaisons engaging more than  
**280** businesses

# Station Planning Engagement snapshot

(Fall 2023-Spring 2024)



**1,232** Completed English and in-language online survey



**2** In-person Open Houses engaging more than **425** attendees



**2** In-person WSLE SODO drop-in



**2** In-language focus groups  
Vietnamese; Somali and other East African languages



**8** email updates engaging more than **12,417** subscribers



Materials translated into multiple languages to support equitable engagement



**10** Community briefings



**6** Fairs, festivals and other tabling events



**Ads** featured on **11** unique and local digital publications



**360K** Impressions on social media posts **2,000+** link click



**900+** posters delivered along the corridor



**6** Community liaisons engaging Delridge corridor's RET communities and local businesses

# Racial Equity Toolkit (RET) Report Environmental Review

- Partnership with City of Seattle since 2017
- Sets forth RET Outcomes for RET focus areas and corridor-wide, including **enhancing mobility and access, bus-rail integration and equitable transit-oriented development**
- Updated to reflect Draft EIS comments and ongoing community feedback

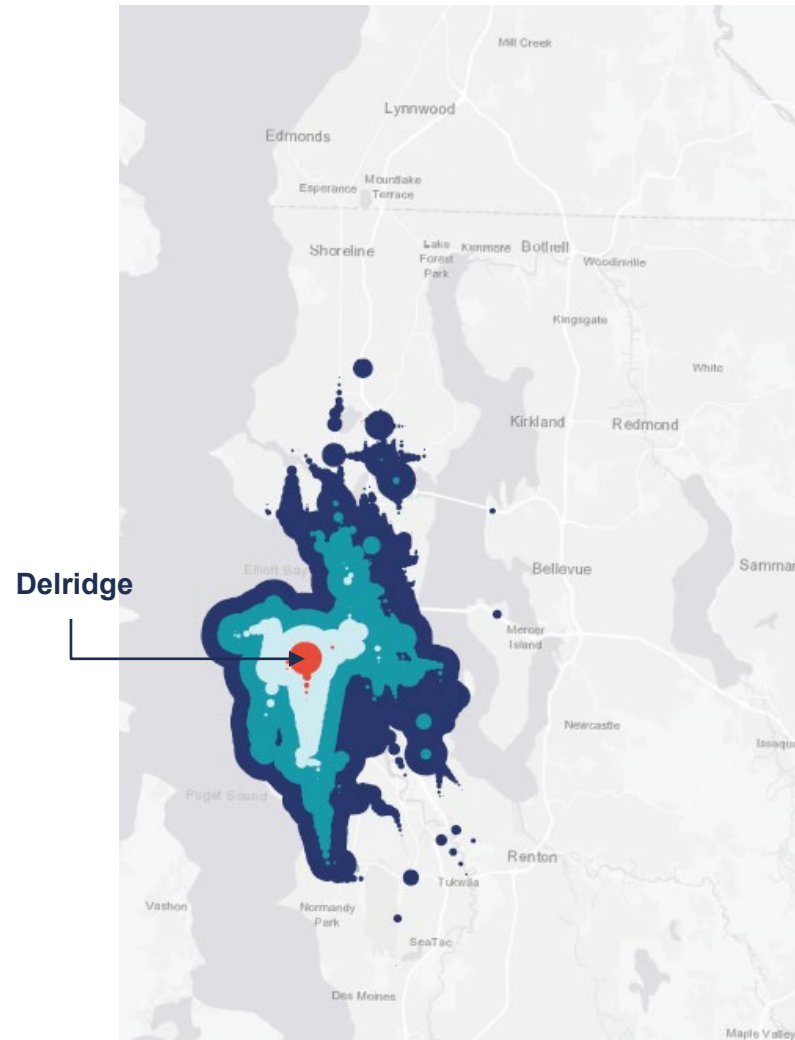


# Transit travel sheds Delridge Station

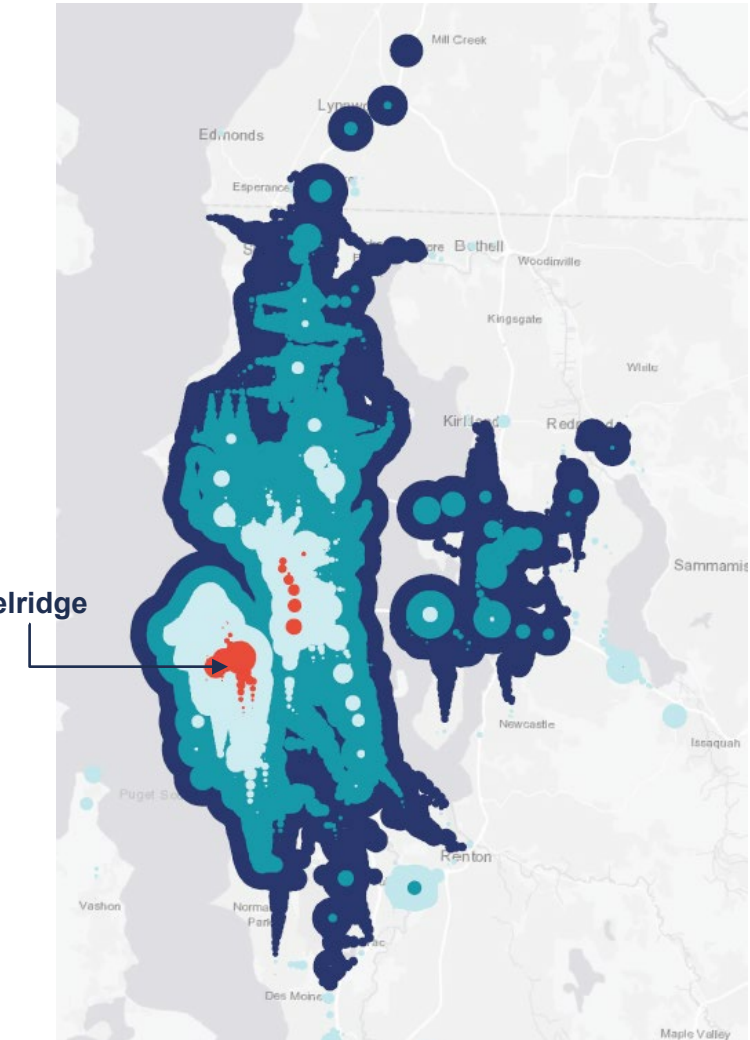
- **Connecting communities to a system** with light rail to Everett, Tacoma, Redmond and Ballard
- **Improves transit service frequency, reliability and capacity**

*Enhancing mobility and access*

Existing



2042 – With WSLE & BLE



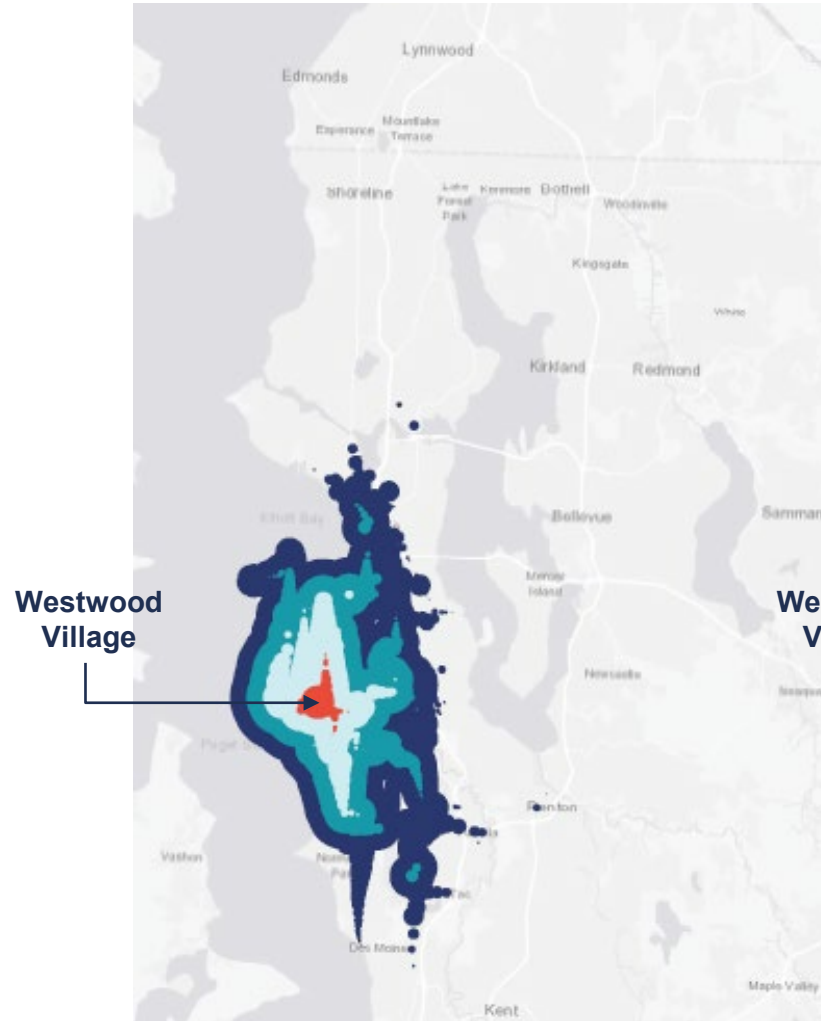
15 - minutes    30 - minutes    45 - minutes    60 - minutes

# Transit travel sheds Westwood Village

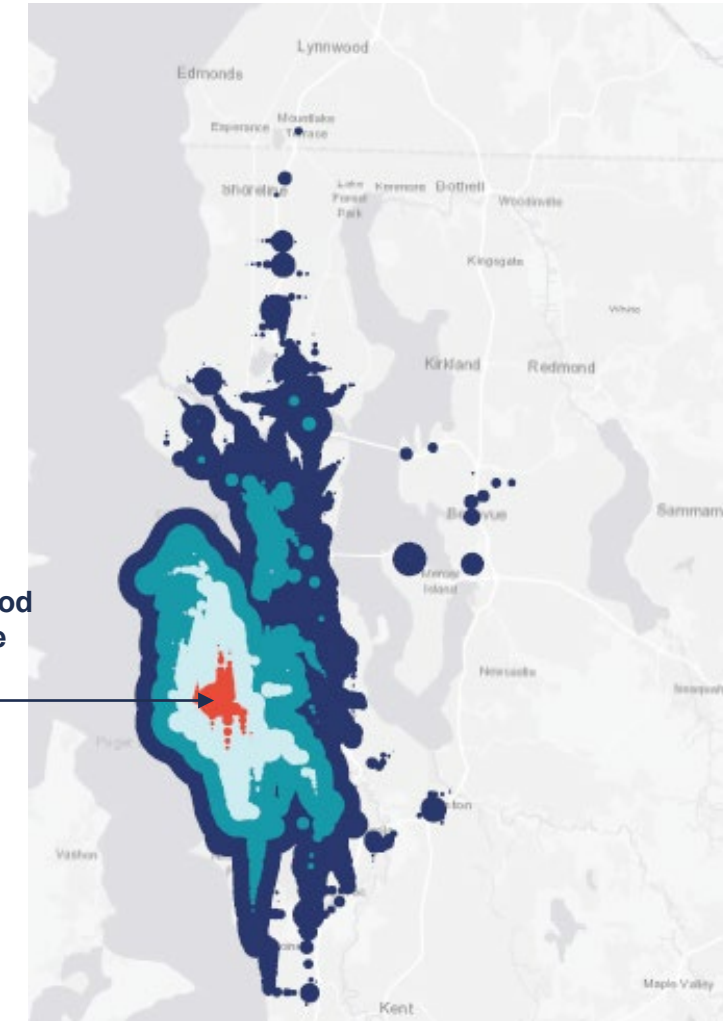
- **Connecting communities to a system with light rail to Everett, Tacoma, Redmond and Ballard**
- **Improves transit service frequency, reliability and capacity**

*Enhancing mobility and access, with bus-rail connections*

Existing



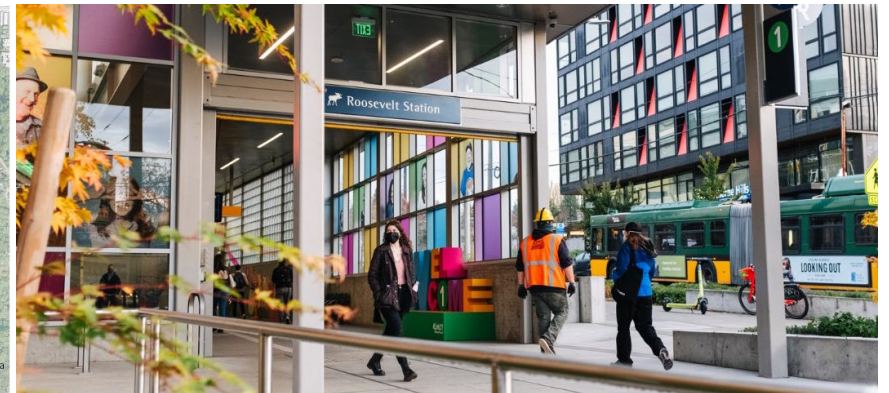
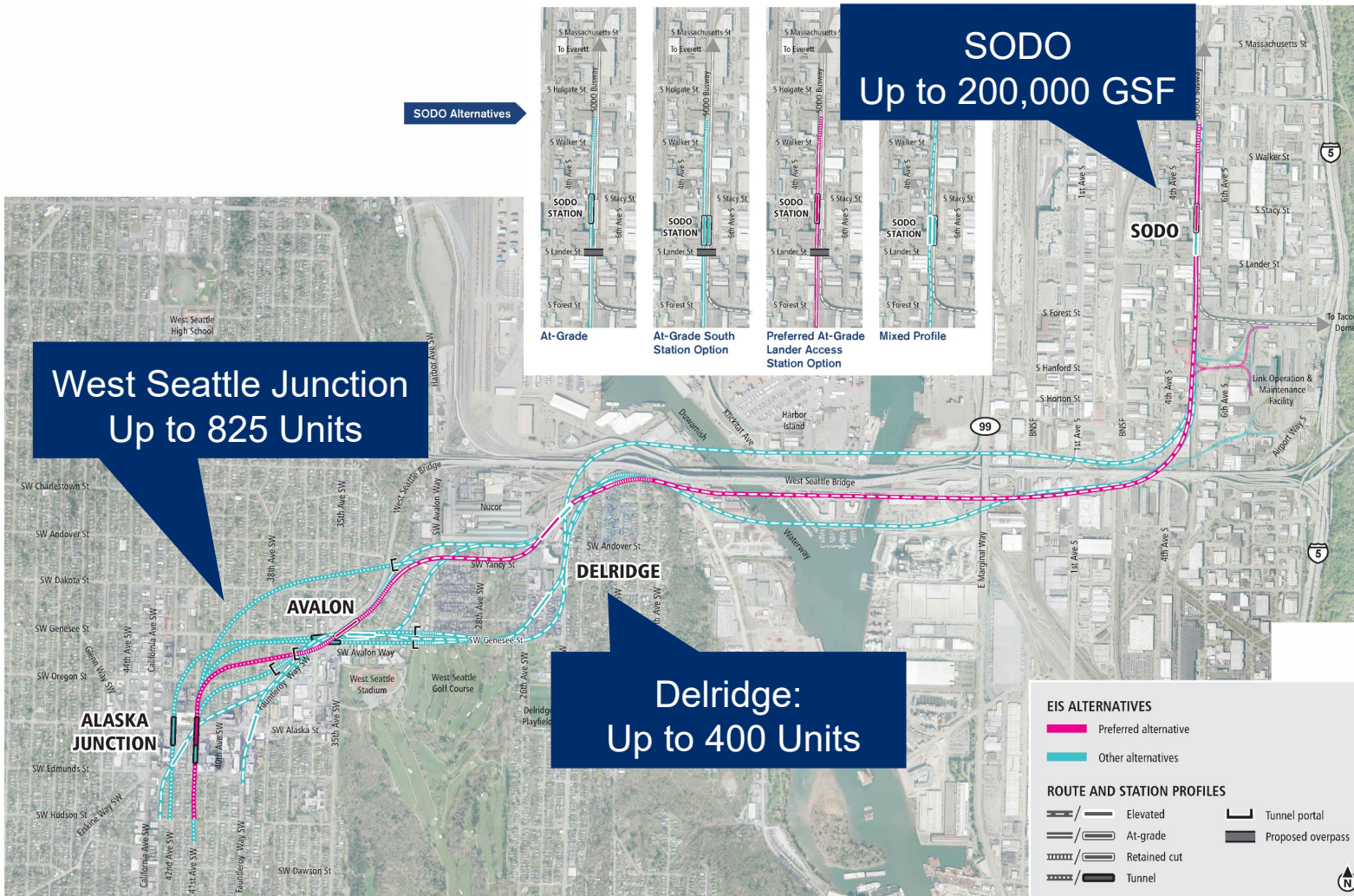
2042 – With WSLE & BLE



15 - minutes    30 - minutes    45 - minutes    60 - minutes



# Transit Oriented Development (TOD)



17 Estimates based on station area development planning and represent Agency TOD, that could be complemented by community TOD.

***Final EIS alternatives  
and results***

# What is typically studied in an EIS?

## **Transportation**

- Regional transportation
- Transit services
- Arterial and local street systems
- Parking
- Non-motorized facilities
- Navigation
- Freight

## **Natural environment**

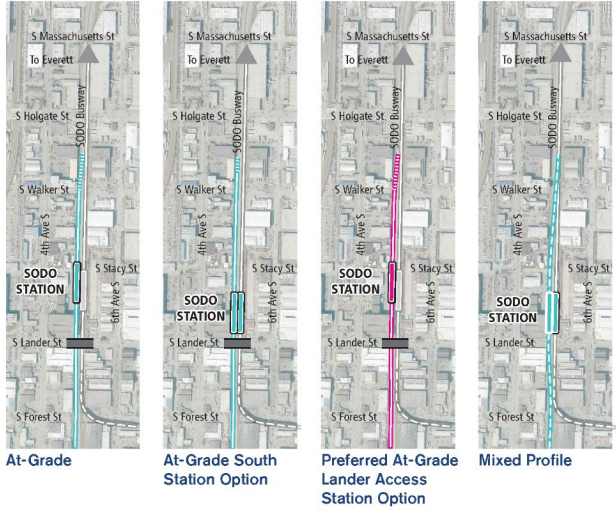
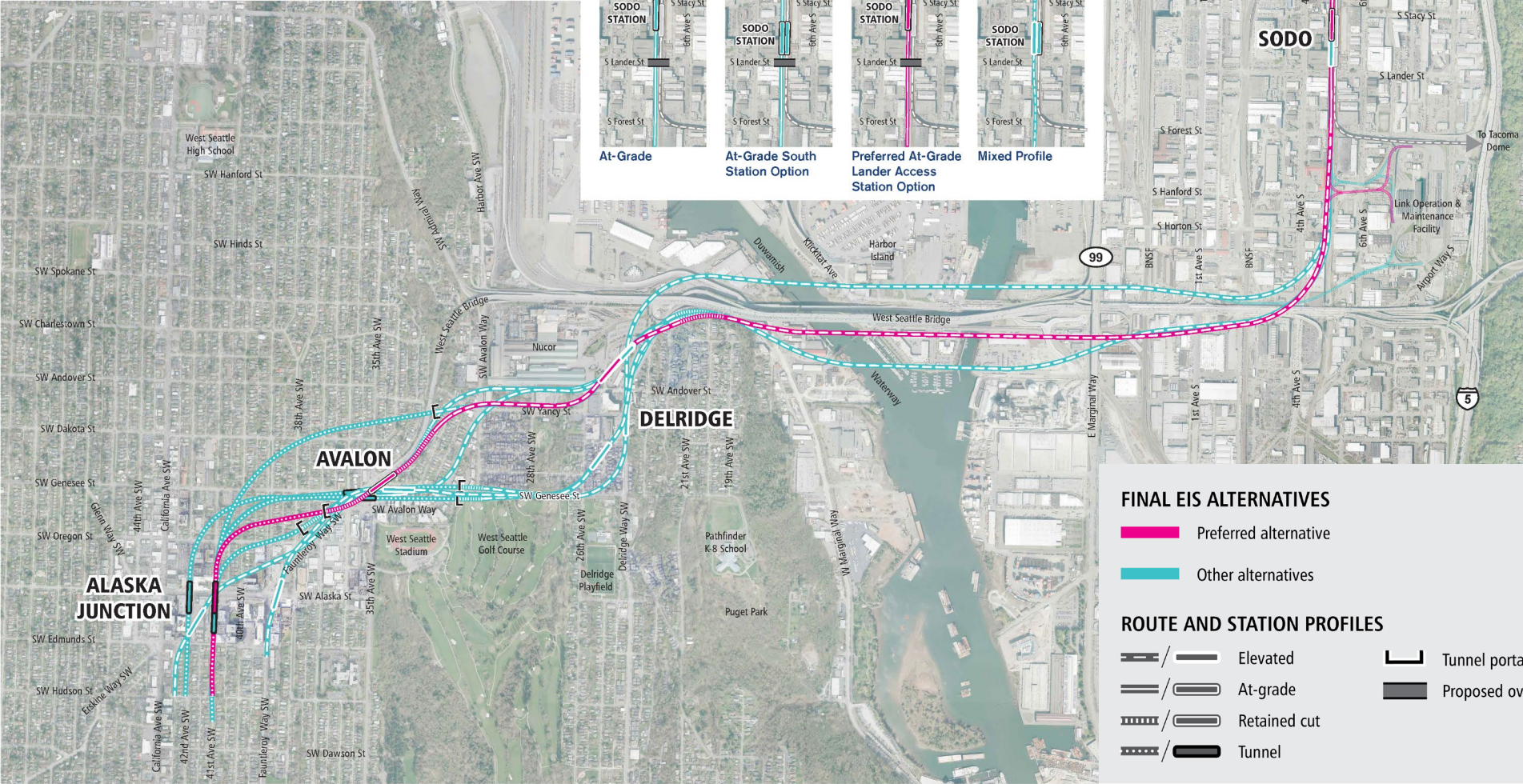
- Air quality and greenhouse gas emissions
- Ecosystems
- Water resources
- Geology and soils

## **Built environment**

- Acquisitions, displacements and relocations
- Noise and vibration
- Economic effect
- Visual resources
- Parks and recreation
- Land use
- Energy
- Hazardous materials
- Public services
- Historic and archaeological resources
- Social resources, community facilities and neighborhoods
- Electromagnetic fields
- Utilities

# Final EIS alternatives

SODO Alternatives



## FINAL EIS ALTERNATIVES

- Preferred alternative
- Other alternatives

## ROUTE AND STATION PROFILES

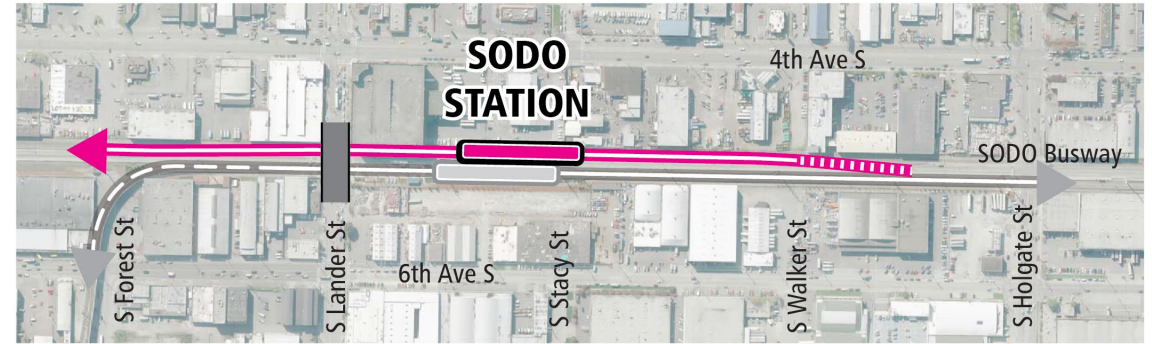
- Elevated
- At-grade
- Retained cut
- Tunnel
- Tunnel portal
- Proposed overpass



# Final EIS alternatives SODO



At-Grade Alternative (SODO-1a)



Preferred At-Grade Lander Access Station Option (SODO-1c)



At-Grade South Station Option (SODO-1b)



Mixed-Profile Alternative (SODO-2)

## FINAL EIS ALTERNATIVES

- █ Preferred alternative
- █ Other alternatives
- █ Existing Link






## ROUTE AND STATION PROFILES

- At-grade
- Elevated
- Retained cut
- Street overpass



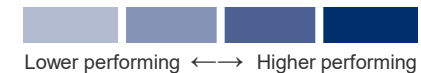
Diagrams are not to scale and all measurements are approximate for illustration purposes only.

# Final EIS alternatives SODO

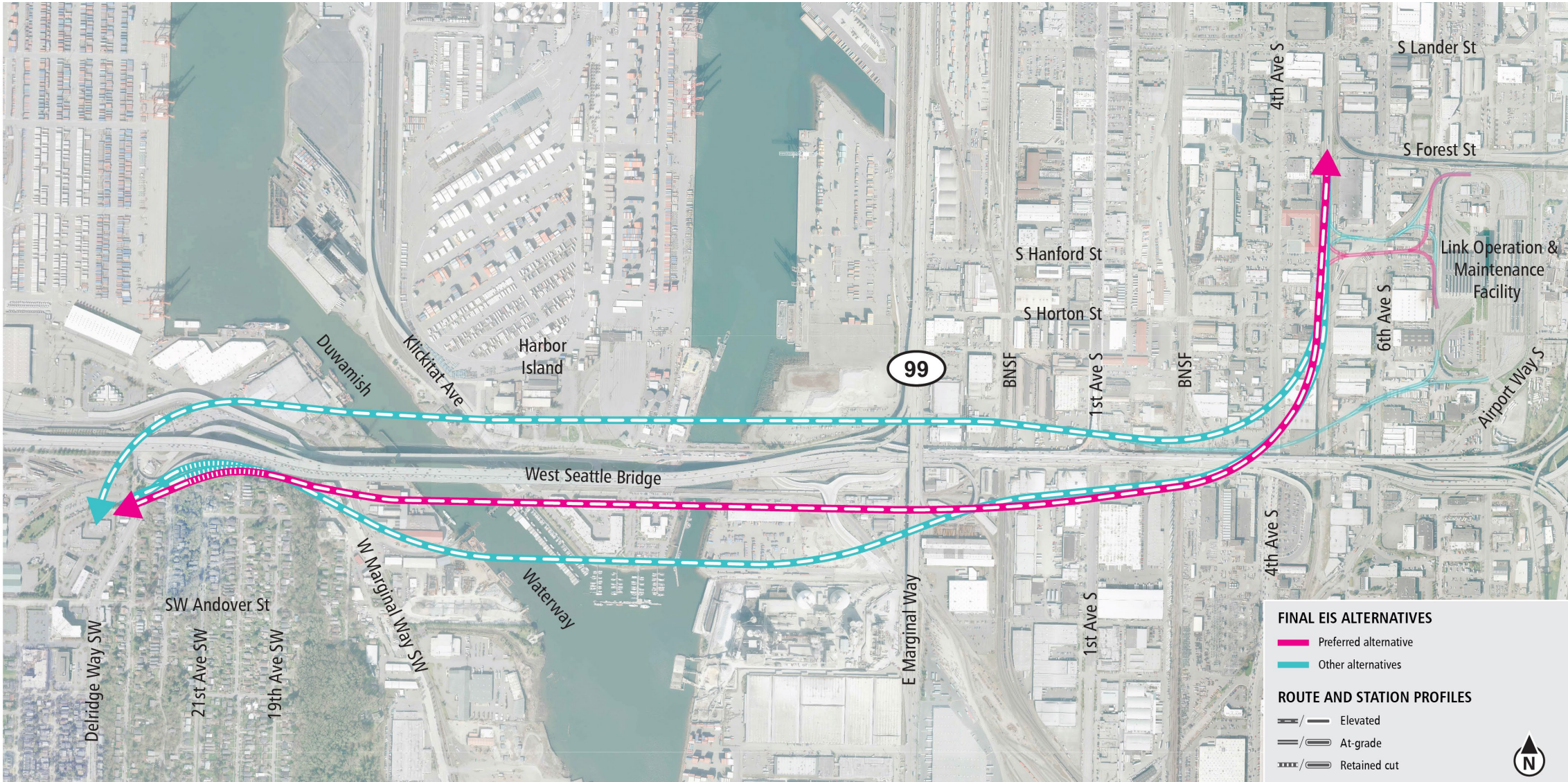
	At-Grade Lander Access Station	At-Grade	At-Grade South Station Option	Mixed Profile
Comparative estimate 	\$	\$	\$\$	\$\$
Business displacements 	33	34	35	31
Transportation effects 	SODO Busway (permanent closure)	SODO Busway (permanent closure)	SODO Busway (permanent closure)	SODO Busway (temporary closure 5 years)
Construction effects 	S. Lander Street closure (3 years)	S. Lander Street closure (3 years)	S. Lander Street closure (3 years)	S. Lander Street closure (nights/weekends)
Other considerations 	Avoids USPS relocation	Avoids USPS relocation	Relocation of USPS	Relocation of USPS

The above information is for illustration only. Please refer to FEIS for further detail.

Performance



# Final EIS alternatives Duwamish









# Final EIS alternatives

## Duwamish

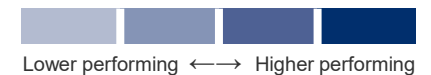
### South Crossing Alternative

### South Edge Crossing Alignment Option

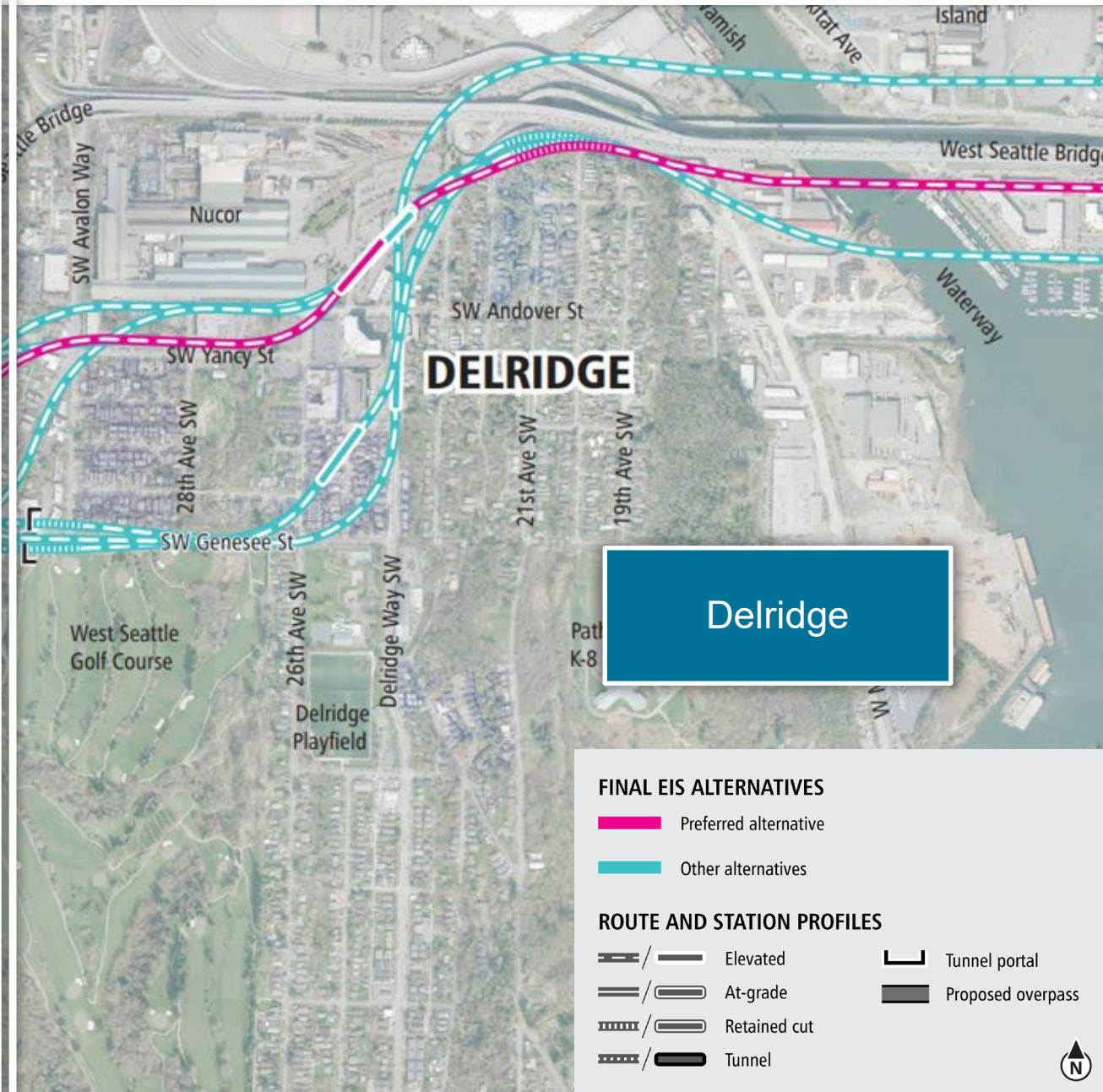
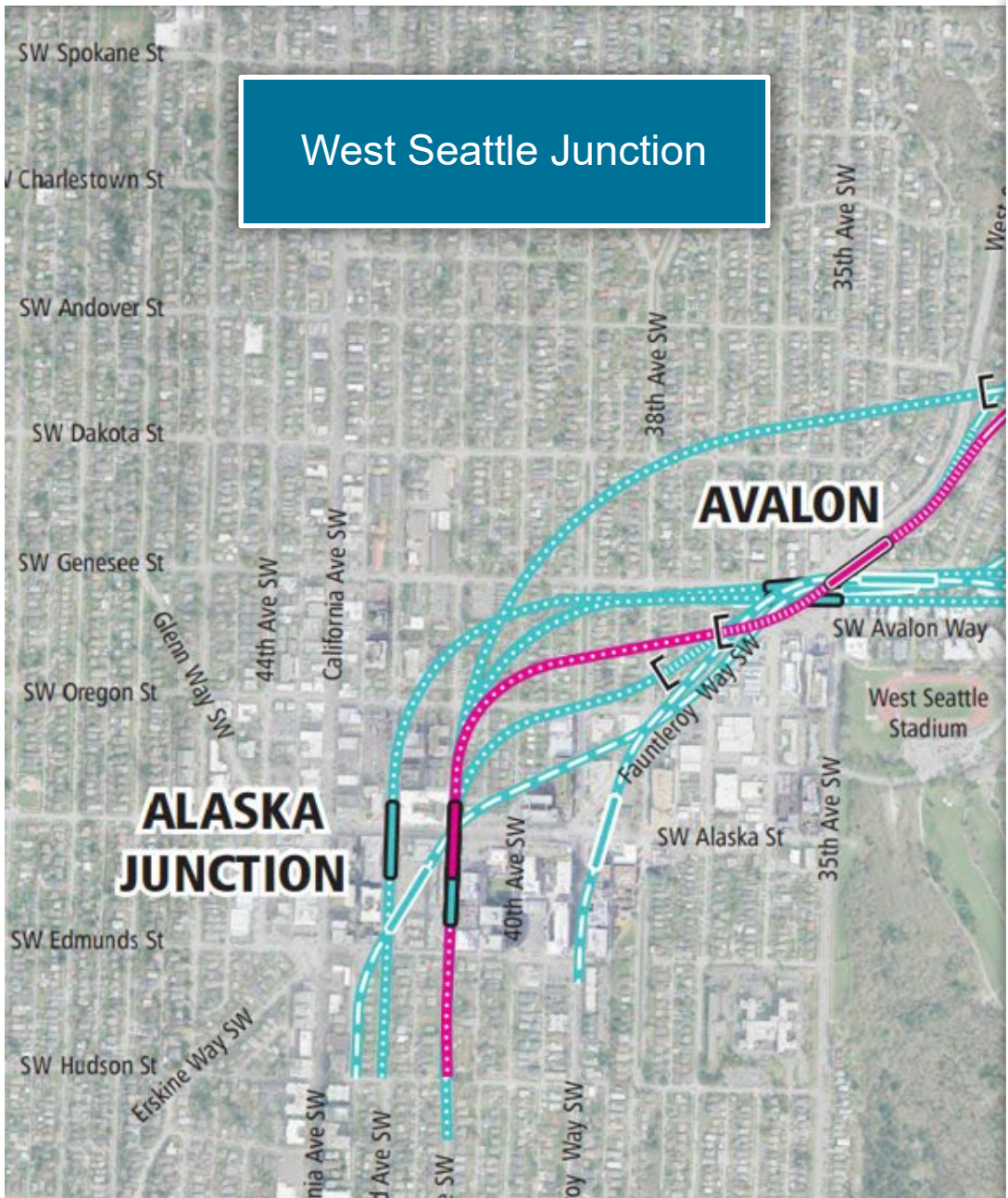
### North Crossing Alternative

<b>Comparative estimate</b> 	\$	\$	\$\$
<b>Residential displacements</b> 	21 units	22-25 units	none
<b>Business displacements</b> 	36	29-30	36
<b>Maritime Business displacements</b> 	3	5	10
<b>Park effects (permanent)</b> 	1.1-1.3 acres	1.2 acres	none
<b>Other considerations</b> 	No in-water piers Pigeon Point constructability	In-water columns necessary Marinas Pigeon Point constructability	Port of Seattle T-5 & T-18 T-25 restoration site
<p><i>The above information is for illustration only. Please refer to FEIS for further detail.</i></p>			

#### Performance












**FINAL EIS ALTERNATIVES**

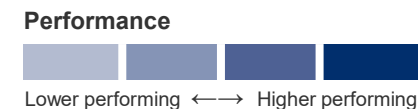
- █ Preferred alternative
- █ Other alternatives

**ROUTE AND STATION PROFILES**

	Elevated		Tunnel portal
	At-grade		Proposed overpass
	Retained cut		
	Tunnel		

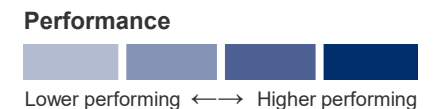
	Medium Tunnel 41st W. Entrance  Andover St Lower Height South	Medium Tunnel 41st  Andover St Lower Height	Elevated 41st /42nd  Dakota St	Elevated Fauntleroy  Dakota St	Tunnel 41st  Dakota St Lower Height	Tunnel 42nd  Dakota St Lower Height
<b>Comparative estimate</b> 	\$\$	\$\$	\$\$\$	\$	\$\$\$	\$\$\$
<b>Residential displacements</b> 	145 units	201 units	541 units	664 units	362 units	323 units
<b>Business displacements</b> 	63	31	74	35	33	60
<b>Park effects (permanent)</b> 	none	none	0.1 acres	0.1 acres	0.7 acres	0.9 acres
<b>Other considerations</b> 	Lower guideway/ Delridge Station  Longfellow Creek Crossing	Lower guideway/ Delridge Station  Social service provider	Taller guideway/ Delridge Station  Social service provider	Taller guideway/ Delridge Station  Social service provider	Lower guideway/ Delridge Station  Tunnel Avalon and Alaska Jct. stations  Social service provider	Lower guideway/ Delridge Station  Tunnel Avalon and Alaska Jct. stations  Social service provider

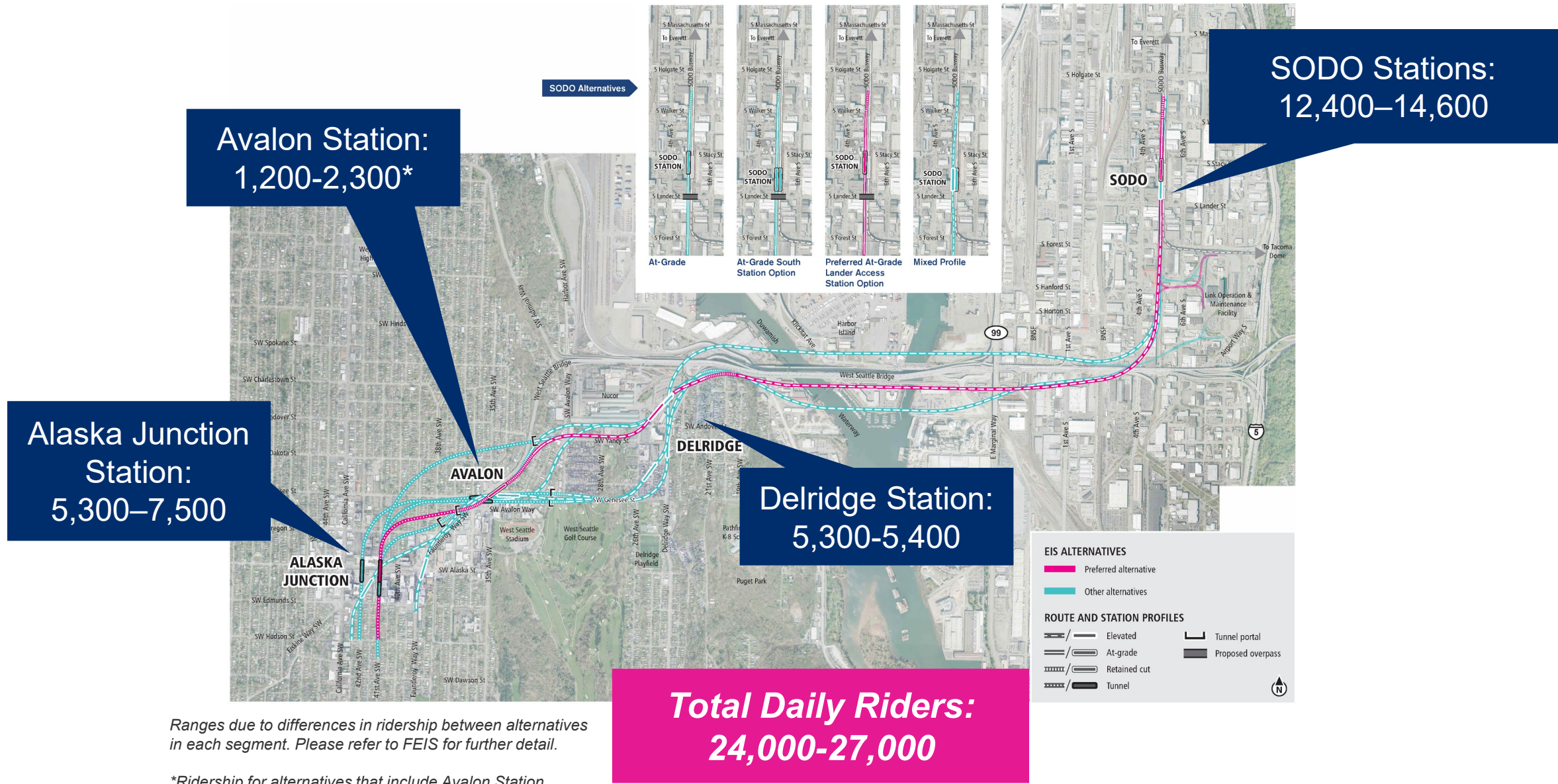
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	Short Tunnel 41st Dakota St	Elevated Fautleroy Andover St	Elevated Fautleroy Delridge Way	Tunnel 41st Delridge Way Lower Height	No Avalon Station Andover St Lower Height South
<b>Comparative estimate</b> 💰	\$\$\$	\$	\$	\$\$\$	\$\$
<b>Residential displacements</b> 🏠	425 units	606 units	643 units	339 units	123 units
<b>Business displacements</b> 🏢	34	35	36	33	25
<b>Park effects (permanent)</b> 🌳	none	0.1 acres	0.2 acres	0.8 acres	none
<b>Other considerations</b> 🔍	Taller guideway/ Delridge Station  Tunnel Alaska Jnct. station  Social service provider	Taller guideway/ Delridge Station  Guideway follows Avalon Way SW  Delridge Station further north	Taller guideway/ Delridge Station  Social service provider  Fire Station 36	Lower guideway  Social Servicer Provider  Fire Station 36	Lower guideway/ Delridge Station  No Avalon Station Tunnel


The above information is for illustration only. Please refer to FEIS for further detail.





# *Cost evolution*

# Cost evolution



	2023 Finance Plan <i>(based on 2022 DEIS)</i>	2024 FEIS	2024 Preliminary Engineering
Cost (billions of \$)	\$4.0	\$5.1 - \$5.6	\$6.7 - \$7.1
Year \$	2023\$	2024\$	2024\$
Level of design	<10%	~10%	~30%*
Basis of estimate	Comparative**	Comparative	Bottom-up
Cost factors	Escalated 2022 Draft EIS, Inflation index did not reflect global market issues (ie. Pandemic)	Includes design progression and refinements, updated ROW	Reflects market conditions, more advanced level of design, additional site data, constraints, etc.

\* Preferred Alternative only

# WSLE estimate progression

← ST3 2016

2023				2024				2025				2026				2027				2028			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Planning &amp; Environmental</b>								<b>Design</b> (Design Development and Construction Documents)								<b>Construction</b>							

- Alternatives Development, Draft EIS, Final EIS
- Station planning
- Potential ROW impacts
- Fieldwork and early geotech
- Interagency coordination and collaboration
- Multiple alternatives advanced with community feedback
- 0% to ~10% design progression on alignment and stations for all alternatives
- **Comparative estimate**

- Advance design to 100%
- Advance geotechnical investigations
- Refine our constructability analysis
- Conduct quantitative risk assessment
- Implement value engineering and other cost savings strategies
- Assess financial capacity and funding opportunities
- Preconstruction activities, contractor early engagement and pricing
- **Bottom-up estimates**

# ***Comparative estimate \$5.1B–5.6B (2024\$)***

- Final EIS, published in September 2024
- \$5.1-5.6B (2024\$)
- Design progression to ~10%, largely completed in March 2023
- Change between Draft EIS and Final EIS reflects design progression, including:
  - Moved Duwamish Crossing piers out of the waterway
  - Enhanced access to Delridge Station
  - Shifted Alaska Junction Station entrance and deepened station depth
  - Accounted for additional environmental mitigation



# ***Preliminary estimate \$6.7–7.1B (2024\$)***

- Progressed design on preferred alternative from 10% to 30%, (conceptual to preliminary engineering)
- Methodology shift from comparative estimates to a preliminary bottom-up estimate
- Industry practice at this stage to report as a range and consistent with Triunity recommendations
- Includes an array of potential value engineering ideas and agency initiatives

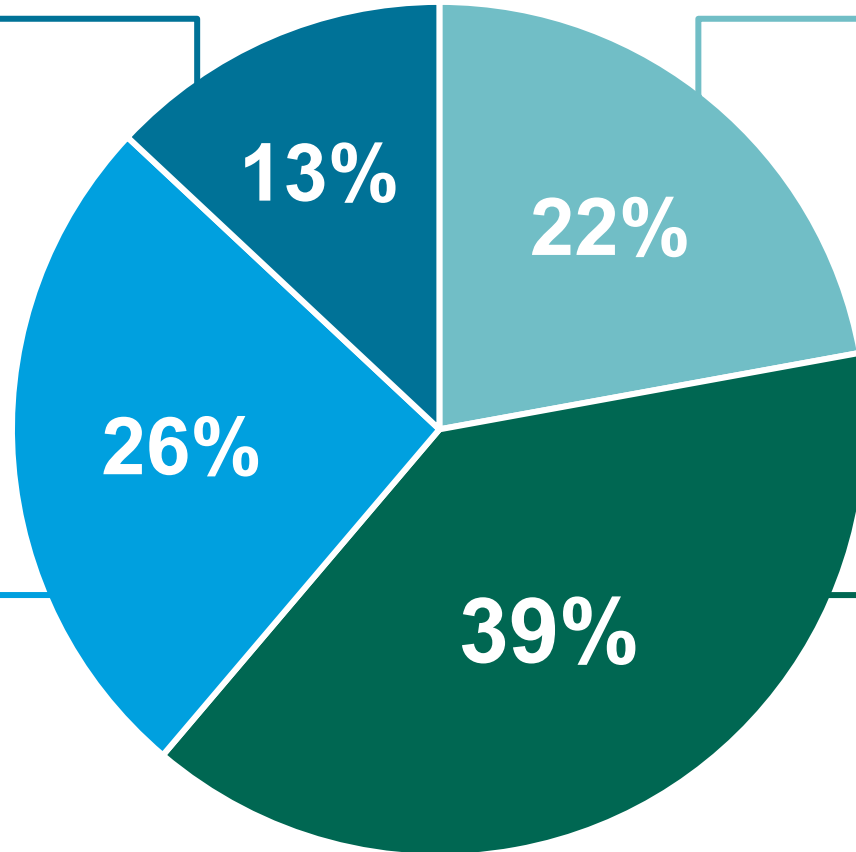
# Drivers of cost growth on WSLE

Higher indirects –  
professional services  
and owner requirements

Market conditions –  
limited labor and  
contractor pool

Project development /  
Environmental  
process delays

Design progression,  
cost escalation,  
estimating methodology  
and pandemic impacts



# ***National Construction Economic Outlook<sup>1</sup>***

- 2023 monthly transportation spending of \$65 billion
- Strong growth in non-residential infrastructure market is putting pressure on prices
- Asphalt, cement and **concrete show the highest cost increases**
- Labor availability is contractors' number one problem and wage premium for construction is high
- **Craft labor costs continue to increase** at a rate of 5% or more per BLS
- Contractor capacity for mega projects is limited

# Program level opportunities

## High

- Offsite construction
- Align indirect costs
- Strategies to reduce OH costs
- Collaborative delivery
- Bundling strategy/add alternate work
- Target value design – Design and build to budget

## Medium

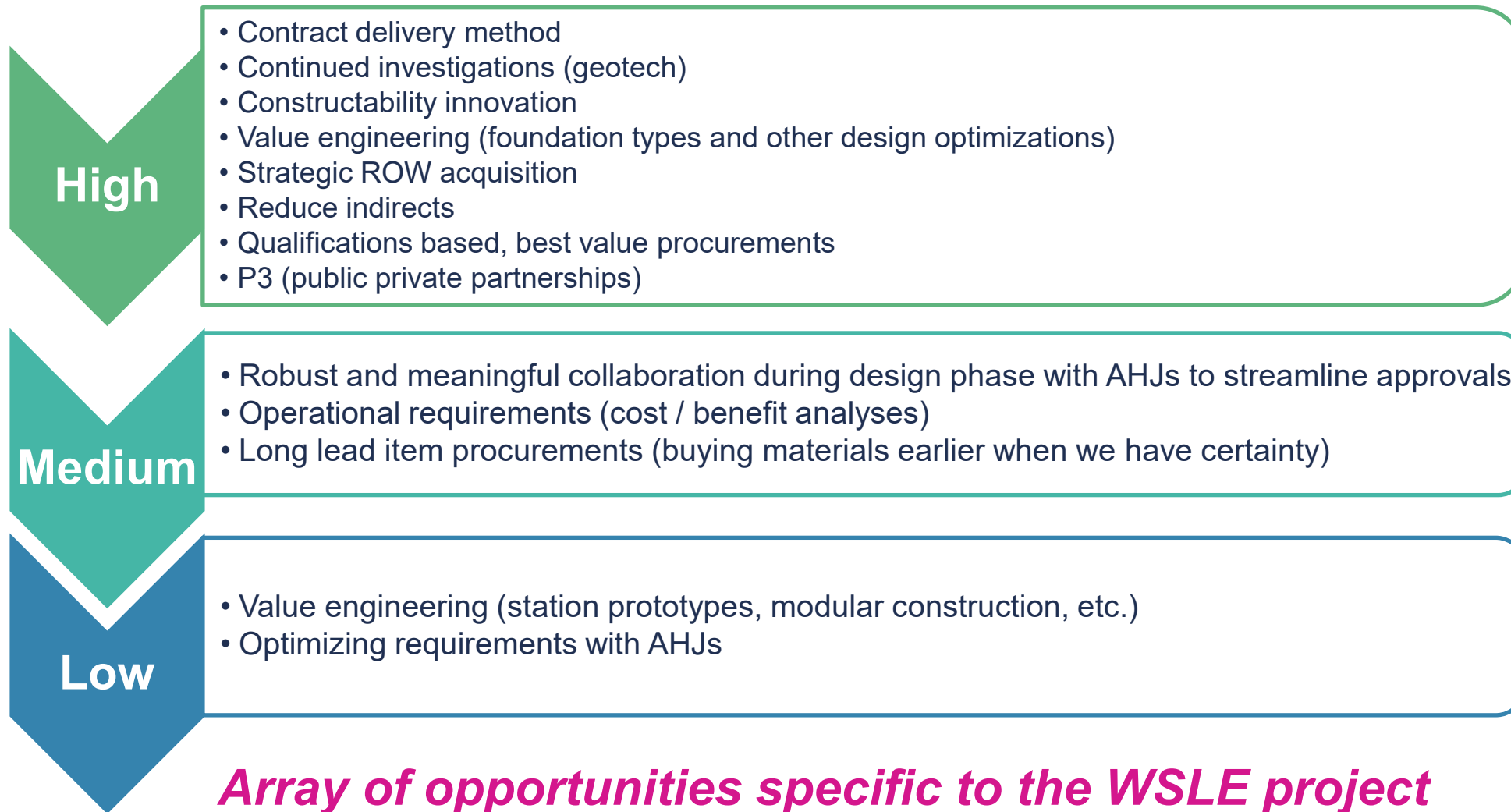
- Betterments – new policy
- Permitting – strategies to streamline construction timeline
- Third party MOUs – early engagement, clear expedited escalation, decision maker clarity
- Station infrastructure cost share – P3 opportunities/TOD opportunities
- Rally Industry
- Higher investment in gathering site conditions

## Low

- Modularity/consistent kit of parts approach – Repeated elements (site adapt, prefab)
- Early procurement – ST purchased material (buy things early, buy in volume)
- Vendor agreements / contracts with economic price adjustment, fixed unit cost pricing

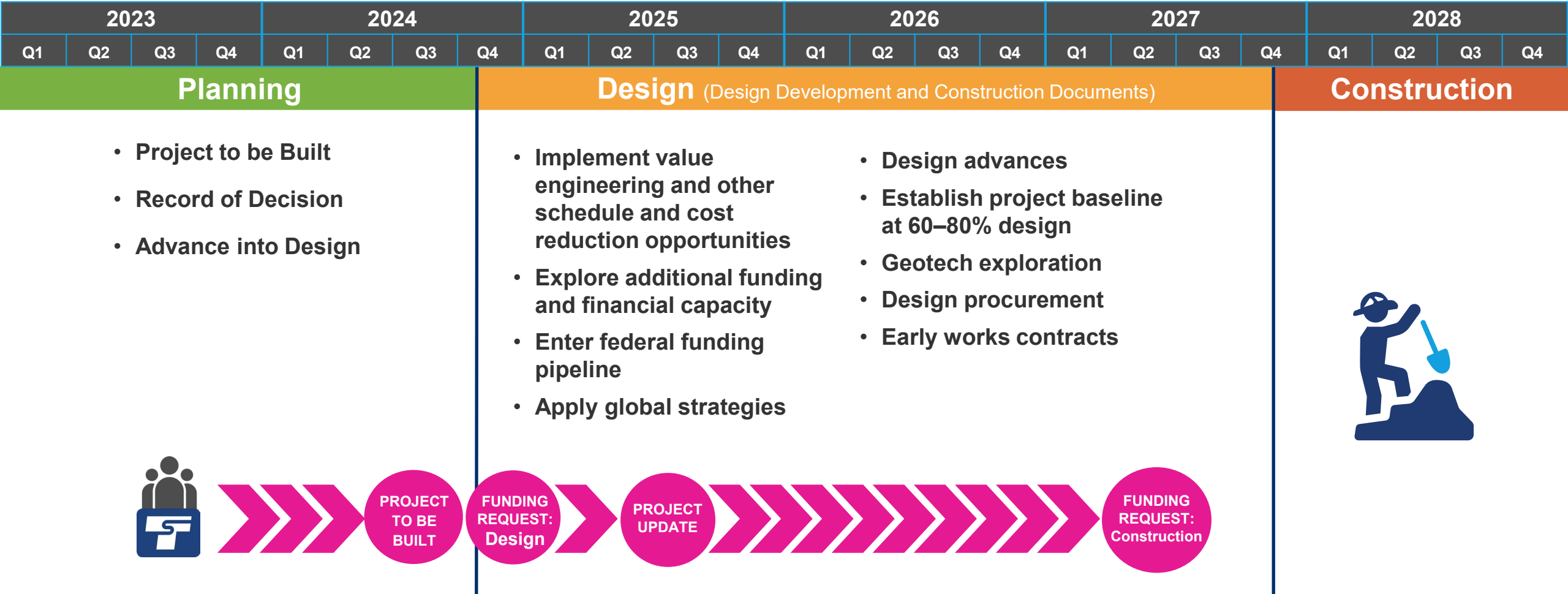
***Tools and approaches to leverage opportunities across portfolio***

# WSLE project level opportunities



# WSLE next steps summary

← ST3 2016



***Next steps***

# *Project to be Built decision*

## *What does the Project to be Built action do?*

Action on the Project to be Built is a step to completing the environmental review phase and **allows the project to proceed into design** in a timely manner.

Approving the WSLE project to be built will not negatively impact the agency's ability to advance other projects in the expansion program.

The agency will return to the Board in the future as design progresses, to baseline the project and to authorize construction dollars.



# Upcoming drop-in sessions

## Final EIS publication



### Drop-In Session in Delridge

Wednesday, September 25, 2024, 4:30-6:30pm  
Youngstown Cultural Arts Center

### Drop-In Session near Alaska Junction/Avalon

Tuesday, October 1, 2024, 4:30-6:30pm  
Alki Masonic Center

### Drop-In Session in SODO

Wednesday, October 2, 2024, 11am-1pm  
Gallery B612



# Where we're going

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