

West Seattle and Ballard Link Extensions

Pigeon Point Neighborhood Council March 11, 2019



ST3 Representative project

- Identifies mode, corridor, number of stations, general station locations
- Informs cost, schedule, operating needs

West Seattle project timeline



2017-2022

DESIGN

2022-2025



CONSTRUCTION

2025-2030



2030

SERVICE

2016

Alternatives development

Board identifies preferred

Draft Environmental Impact Statement

Final Environmental **Impact Statement**

Board selects project to be built

Federal Record of

PUBLIC INVOLVEMENT

Final route design

Final station designs

Procure and commission station and public art

Obtain land use and construction permits

Property acquisition/relocation

PUBLIC INVOLVEMENT

Safety education

Testing and pre-operations

PUBLIC INVOLVEMENT

VOTER APPROVAL

2016



PLANNING



2017-2019

Alternatives development

Board identifies preferred alternative

2019-2022

Draft Environmental Impact Statement

Final Environmental Impact Statement

Board selects project to be built

Federal Record of Decision

PUBLIC INVOLVEMENT

Alternatives development process

LEVEL 1

Alternatives developmen

Early-2018

Conduct early scoping

Study ST3 representative project and alternatives

Screen alternatives

PUBLIC INVOLVEMENT

LEVEL 2

Alternatives development

Mid-2018

Technical analysis

Refine and screen alternatives

PUBLIC INVOLVEMENT

LEVEL 3

Alternatives development

Late-2018 / Early-2019

Refine and screen alternatives

Conduct Environmental Impact Statement (EIS) scoping

PUBLIC INVOLVEMENT

PREFERRED ALTERNATIVE*

Early-2019

*The Sound Transit Board identifies preferred alternatives and other alternatives to study.

Community engagement and collaboration













Meeting dates subject to change.

West Seattle Briefings and Events

- ✓ Early Scoping Open House (2/13/18)
 - 344 sign-ins
- ✓ Nucor (3/7/18)
- ✓ Junction Neighborhood Association (4/2/18, 4/26/18)
- ✓ Southwest District Council (4/4/18)
- ✓ West Seattle Transportation Coalition (4/26/18)
- ✓ Delridge/Avalon/Alaska Junction Neighborhood Forum (5/5/18)
 - 140 sign-ins

- ✓ Fauntleroy Business Association (5/24/18)
- ✓ Pigeon Point Neighborhood Council (6/11/18)
- ✓ Southwest Youth & Family Services (6/29/18)
- ✓ Neighborhood House at High Point (7/26/18)
- ✓ Drink & Link in Delridge (8/8/18)
- Delridge Day (8/11/18)
- ✓ West Seattle Open House (9/8/18)
 - 140 sign-ins

West Seattle Briefings and Events

- ✓ Online Open House (9/6 9/23/18)
 - 140 West Seattle surveys submitted
- ✓ West Seattle Transportation Coalition (9/27/18)
- ✓ DNDA (10/9/18, 10/24/18)
- ✓ Delridge Way SW Businesses (10/15/18)
- ✓ Feet First West Seattle Walk & Talk (10/16/18)
- ✓ Tiburon Condominiums (11/15/18)
- ✓ WestSide Baby (12/6/18)

- Delridge Community Center (1/9/19)
- ✓ White Center Community Development Association (1/16/19)
- ✓ Community briefing at Youngstown Cultural Arts Center (1/16/19)
- ✓ West Seattle Open House (2/27/19)
 - 260 sign-ins
- ✓ West Seattle Democratic Women (2/28/19)

Stakeholder Advisory Group

- Andres Arjona, Community Representative Ballard
- Becky Asencio, Seattle Public Schools
- Brian King, Community Representative West Seattle
- Bryce Yadon, Futurewise
- Colleen Echohawk, Chief Seattle Club
- Dave Gering, Manufacturing Industrial Council
- Deb Barker, Community Representative –West Seattle
- Erin Goodman, SODO Business Improvement Area
- Ginny Gilder, Force 10 Hoops/Seattle Storm
- Greg Nickels, Former Mayor of Seattle
- Hamilton Gardiner, West Seattle Chamber of Commerce
- Jon Scholes, Downtown Seattle Association
- Katie Garrow, Martin Luther King Labor Council
- Kelsey Mesher, Transportation Choices Coalition
- Larry Yok, Community Representative Chinatown/ID



Stakeholder Advisory Group

- Maiko Winkler-Chin, SCIDpda
- Mark Nagle, Expedia
- Mike Stewart, Ballard Alliance
- Peter Schrappen, Northwest Marine Trade Association
- Robert Cardona, Community Representative Uptown
- Ron Sevart, Space Needle
- Savitha Reddy Pathi, Wing Luke Museum
- Scott Rusch, Fred Hutchinson Cancer Research Center
- Steve Lewis, Alliance for People with disAbilities
- Walter Reese, Nucor Steel
- Warren Aakervik, Community Representative Freight
- Willard Brown, Delridge Neighborhood Development Association



Elected Leadership Group

Executive Dave SomersSound Transit Board Member

Mayor Jenny Durkan Sound Transit Board Member

Executive Dow ConstantineSound Transit Board Member

Councilmember Rob Johnson Sound Transit Board Member Councilmember Joe McDermott Sound Transit Board Member

Councilmember Lisa Herbold Seattle City Council

Councilmember Bruce Harrell Seattle City Council

Councilmember Sally Bagshaw
Seattle City Council

Councilmember Mike O'Brien Seattle City Council

Councilmember Lorena
González
Seattle City Council

Commissioner Stephanie
Bowman
Port of Seattle



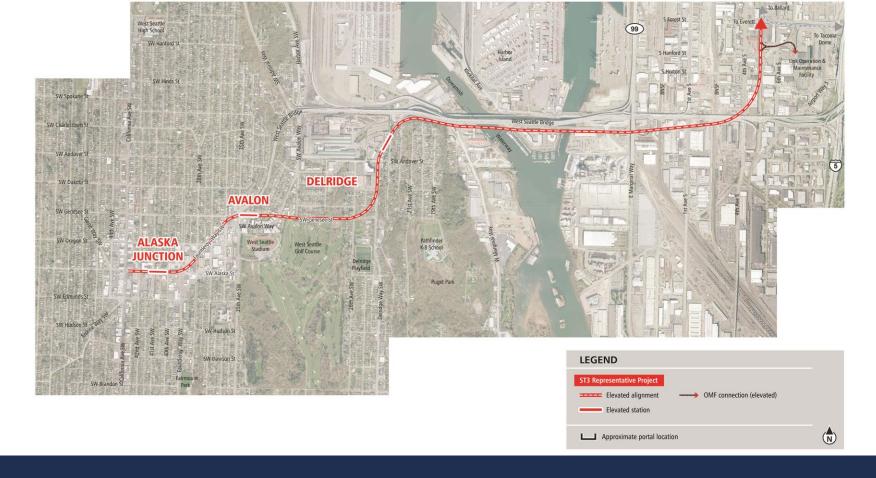


Summary of Level 3 alternatives

- ST3 Representative Project
- West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated
 - C-ID station options: 5th Ave Cut-and-Cover and 5th Ave Mined
- West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel
 - Junction station options: 41st Ave, 42nd Ave and 44th Ave
 - C-ID station options: 4th Ave Cut-and-Cover and 4th Ave Mined
 - Ballard station options: 14th Ave and 15th Ave



Level 3 alternatives



ST3 Representative Project West Seattle/Duwamish

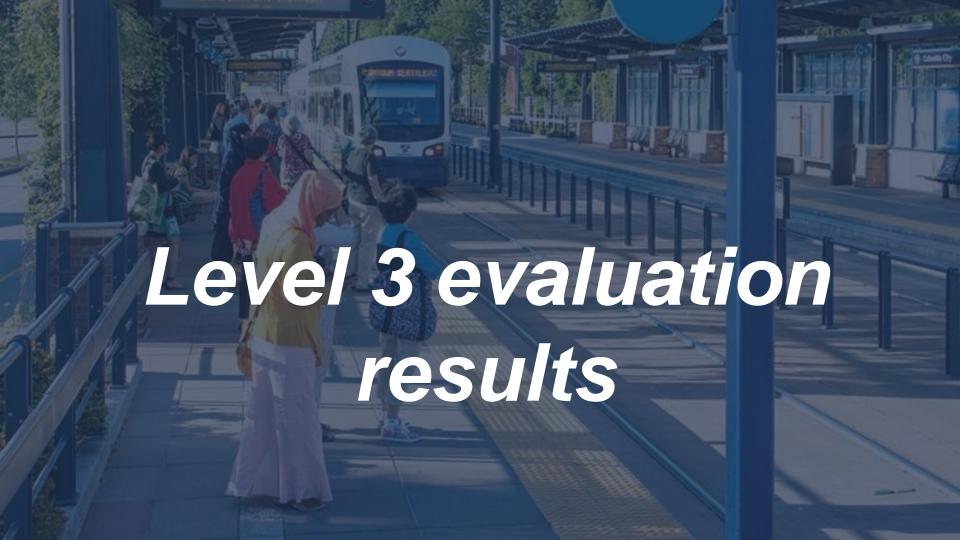




West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel West Seattle/Duwamish



Level 3 Alternatives West Seattle/Duwamish



Purpose and need

Purpose Statement	Symbol
Provide high quality rapid, reliable, and efficient peak and off-peak LRT service to communities in the project corridors as defined in ST3.	
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet the projected transit demand.	STATION
Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's Regional Transit Long-Range Plan.	0
Implement a system that is consistent with the <i>ST3 Plan</i> that established transit mode, corridor, and station locations and that is technically feasible and financially sustainable to build, operate, and maintain.	00
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.	
Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development, station access, and modal integration in a manner that is consistent with local land use plans and policies.	
Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.	

Evaluation criteria

> 17 criteria consistent in all levels of evaluation

- Reliable service
- Travel times
- Regional connectivity
- Transit capacity
- Projected transit demand
- Regional centers served
- ST Long-Range Plan consistency
- ST3 consistency
- Technical feasibility

- Financial sustainability
- Historically underserved populations
- Station area land use plan consistency
- Modal integration
- Station area development opportunities
- Environmental effects
- Traffic operations
- Economic effects

Evaluation measures

- > 50+ quantitative and/or qualitative measures
- Ratings for Lower, Medium and Higher performing
- Key differentiators and considerations among alternatives

Lower Performing

Medium Performing

Higher Performing

	ST3 Representative	West Seattle Elevated/C-ID Ave/Ballard		h West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
Evaluation Measures	Project	5th Ave Cut-and-Cover International District/ Chinatown Station	Chinatown Station	41st Ave Alaska Junction/4th Ave Cut-and- Cover/14th Ave Ballard	42nd Ave Alaska Junction Station	44th Ave Alaska Junction Station	4th Ave Mined International District/ Chinatown Station	15th Ave Ballard Station
	Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.							
At-grade crossings	3	1				1		
Potential service interruptions/recoverability	Lower	Medi			Medium		Lower	Medium
LRT travel times (minutes)	6 to 7 / 13 to 14	6 to 7 / 1	3 to 14			6 to 7 / 13 to 14		
Transit travel time savings (minutes)	12 to 20	12 to				12 to 20		
Improve regional mobility by increasing conne	ectivity and capacity th	rough downtown Seattle to	meet projected transit d	emand.				
Network integration	Lower	Medi	um		Higher		Medium	Higher
Passenger carrying capacity	Medium	Medi				Medium		
Average weekday trips on West Seattle/	35,000 to 40,000 /	35,000 to	39,000 /			35,000 to 41,000 /		
Ballard extensions (2042)	123,000 to 163,000	120,000 to	/			125,000 to 165,000		
Connect regional centers as described in adop	oted regional and local	land use, transportation, a	nd economic developmen	t plans and Sound Transit's F	Regional Transit Long-Ro	ange Plan.		
PSRC growth centers served	5	5				5		
Pop/job densities served (2040)	38 / 39	39 /	39			37 / 38 to 39		
Accommodates future LRT extension	Lower	Medi	um	High	er	Medium	High	er
Implement a system that is consistent with th	ne ST3 Plan that establi	ished transit mode, corridor,	and station locations an	d that is technically feasible	and financially sustaina	ble to build, operate, and mo	aintain.	
Mode, route and stations per ST3	Higher	High	er			Higher		
Potential ST3 schedule effects	Higher	Higher	Medium			Lower		
Potential ST3 operating plan effects	Lower	High	er		Higher		Medium	Higher
Engineering constraints	Lower	Medi	um	Lower				
Constructability issues	Lower	Medi	um	Lower				
Operational constraints	Lower	Medium	Lower		Higher		Lower	Higher
Capital costs (2018\$)	-	+\$400M	+\$500M		+\$1,900M		+\$2,100M	+\$1,900M
Annual O&M costs on West Seattle/	\$25 to \$30 /	\$25 to	\$30 /			\$25 to \$30 /		
Ballard extensions (2018\$ in millions)	\$55 to \$60	\$55 to				\$55 to \$60		
Expand mobility for the corridor and region's	residents, which includ	le transit dependent, low in	come, and minority popul	ations.				
Low-income/minority opportunities	Medium	Medium		Medium				
(activity nodes/rental units) (1)	23%	22%				23%		
Low-income population (1/2)	32% / 32%	32% / 32%		32% / 31%				
Minority population (1/2)	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population (1/2)	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population (1/2)	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population (1/2)	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population (1/2)	12% / 11%	12% / 11%		12% / 11%				
(1) Within station walksheds: (2) Within 15 min			11/0			12/0 / 11/0		
Lovel 3		aluati	ion .	Dort 1 of 0		Lower Performing	Medium Performing	Higher Performing

SEVAIUALIOII – Part 1 of 2

Overview of Key Differentiators

	ST3 Representative	West Seattle Elevated/C-IE Ave/Ballard		Mest Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
Evaluation Measures	Project	5th Ave Cut-and-Cover International District/ Chinatown Station	5th Ave Mined International District/ Chinatown Station	41st Ave Alaska Junction/4th Ave Cut-and- Cover/14th Ave Ballard	42nd Ave Alaska Junction Station	44th Ave Alaska Junction Station	4th Ave Mined International District/ Chinatown Station	15th Ave Ballard Station
	rage equitable and sustainable urban growth in station areas through support of transit-oriented development, station access, and modal integration in a manner that is consistent with local land use plans and policies.							
Compatibility with Urban Centers/Villages (1)	58%	56		55 to 58%				
Station land use plan consistency	Higher	High				Higher		
Activity nodes served (1)	302	29	8	300 to 303				
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration (1)	Medium	Med	um			Medium		
Bicycle infrastructure and accessibility (1)	19%	199	%	18 to 19%				
Pedestrian/limited mobility accessibility	Higher	High		Higher				
Development potential (1)	14%	149	%	13 to 14%				
Equitable development opportunities	Lower	Med	um	Higher				
Preserve and promote a healthy environment	and economy by mini	mizing adverse impacts on t	he natural, built and soci	ial environments through sust	ainable practices.			
Historic properties/Landmarks (2)	40	20		40				
Potential archaeological resource effects (1)	Lower	Low	er	Lower				
Parks/recreational resource effects (acres)	1.4	5.3	3			5.7		
Water resource effects (acres)	0.8	0.9	5	<0.1				
Fish and wildlife habitat effects (acres)	15.0	6.0)			15.0		
Hazardous materials sites (2)	50	60)			40		
Visual effects to sensitive viewers (miles)	2.5	1.1	7			1.2		
Noise/vibration sensitive receivers (1)	Medium	Med	um			Medium		
Potentially affected properties	Medium	Low	er			Higher		
Residential unit displacements	Medium	Low	er	Higher				
Business displacements (square feet)	Higher	Low	er	Higher				
Construction impacts	Lower	Lower	Medium		Medium		Lower	Medium
Burden on minority/low-income	Lower	Med	um	Lower				
Traffic circulation and access effects	Lower	Med	um	Higher				
Effects on transportation facilities	Lower	Med	um	Medium				
Effects on freight movement	Lower	Med	um	Medium				
Business and commerce effects	Medium	Med	um	Medium				

⁽¹⁾ Within station walksheds and/or defined buffer of alignment; (2) On properties that overlap with the project footprint

Level 3 evaluation - Part 2 of 2

Lower Performing Medium Performing Higher Performing

ST3 Representative Project

- Engineering constraints with Pigeon Point steep slopes
- · Some effects to Duwamish Greenbelt

West Seattle Elevated

- Engineering constraints with Pigeon Point steep slopes
- Some effects to Duwamish Greenbelt

West Seattle Tunnel

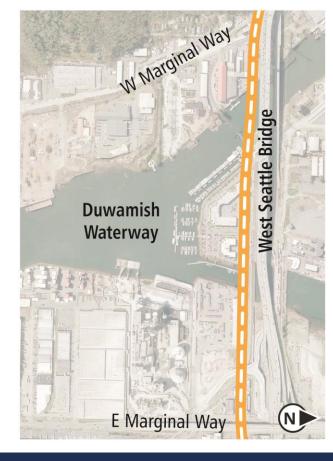
- North bridge crossing avoids Pigeon Point steep slope and effects to Duwamish Greenbelt
- · Affects freight, port terminal facilities especially during construction

Duwamish Waterway Crossing



Key considerations

Duwamish Waterway Crossing



Duwamish Crossing:

Key differentiators

- Engineering constraints
- Potential fish and wildlife effects
- Potential property effects
- Potential freight movement effects
- Potential business and commerce effects
- Comparative Estimate



Duwamish Crossing

Key Differentiators	South	North		
Engineering constraints	Affects Pigeon Point steep slope	Avoids Pigeon Point steep slope		
Potential fish and wildlife effects	Affects West Duwamish Greenbelt	Avoids West Duwamish Greenbelt		
Potential property effects	Similar	Similar		
Freight movement	Lessens freight, port terminal effects	Affects freight, port terminal especially during construction		
Potential business and commerce effects	Could displace businesses that support trade	Could displace businesses that support trade; May displace some water- dependent business		
Comparative Estimate (2018\$)*	-	+ \$300M		

²¹st Ave SW 6th Ave S

^{*}Compared to ST3 Representative Project

ST3 Representative Project

- East-west oriented elevated Alaska Junction Station complicates future LRT extension: constrained terminal station on SW Alaska Street
- High guideway on SW Genesee Street
- Park effects may require 4(f) avoidance alternative
- Delridge Station problematic proximity to freeway/Nucor

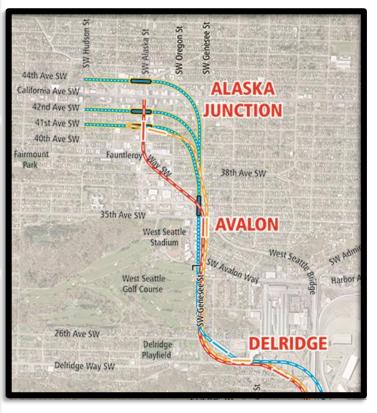
West Seattle Elevated

- More displacements between Alaska Junction and Avalon stations; similar number of displacements in Delridge
- · Greatest disruption to neighborhood around Alaska Junction Station
- · High guideway on SW Genesee Street
- Park effects may require 4(f) avoidance alternative

West Seattle Tunnel

- Fewer displacements w/ tunnel Alaska Junction Station; similar number of displacements in Delridge; Lower Delridge Station in neighborhood
- Tunnel facilitates lower guideway on SW Genesee St, but could increase implementation schedule and require 3rd Party funding
- Park effects may require 4(f) avoidance alternative

West Seattle Stations



Key considerations

West Seattle Stations and Guideway



West Seattle:

Key differentiators

- Station location
- Potential property effects
- Guideway height in Delridge
- Comparative Estimate



West Seattle

Key Differentiators	Elevated 41 st South of Alaska	Tunnel 41 st /Alaska	Tunnel 42 nd /Alaska	Tunnel 44 th /Alaska
Station location (Alaska Junction)	Farther away from bus routes on California Ave	Farther away from bus routes on California Ave	Closer to bus routes on California Ave than 41st	Closer to bus routes on California Ave than 41 st and 42 nd
Property effects* (potential residential / business displacements)	More / Fewer	Fewer / Fewer	Fewer / Fewer	Fewer / Fewer
Guideway height in Delridge	Higher	Lower	Lower	Lower
Comparative Estimate (2018\$)*	-	+ \$700M	+ \$700M	+ \$700M

ALASKA JUNCTION 40th Ave SW 38th Ave SW **AVALON** West Seattle Golf Course 26th Ave SW DEL Delridge Playfield Delridge Way SW

^{*}Compared to ST3 Representative Project



Alternatives development



VOTER APPROVAL

WE ARE HERE





DESIGN



START OF SERVICE



West Seattle: 2030 Ballard: 2035

- Alternatives development
- 2017-2019
- Early scoping
- Scoping
- ST Board identifies preferred alternative and other alternatives
- **Environmental Review** 2019-2022
- Draft Environmental **Impact Statement**
- Final Environmental Impact Statement
- ST Board selects project to be built
- Decision

· Federal Record of

PUBLIC INVOLVEMENT

- Final route design
- Final station designs
- Procure and commission station and public art
- Obtain land use and construction permits
- Property acquisition/relocation

- Groundbreaking
- Construction updates and mitigation
- Safety education
- Testing and preoperations

PUBLIC INVOLVEMENT / TESTING

Level 3 alternatives screening

EIS Scoping Open Houses / Neighborhood Forums	Feb 27, 28 & March 7	Level 3 evaluation results
Delridge Community Workshop	March 12	Delridge station focus
Chinatown/ID Station Community Workshop	March 13	CID station focus
SAG Meeting #13	March 21	Continued discussion of Level 3 evaluation results
ELG Meeting #7	March 29	CID and Delridge station focus
SAG Meeting #14	April 17	Level 3 recommendations
ELG Meeting #8	April 26	Level 3 recommendations
Sound Transit Board System Expansion Committee	May 9	Identify preferred alternative (and other EIS alternatives)
Sound Transit Board Full Board	May 23	Identify preferred alternative (and other EIS alternatives)

What is EIS Scoping?

- Part of the federal and state environmental review process
- Public comment period until April 2
- Seeking public feedback on scope of EIS
 - Range of alternatives
 - Topics to study
 - Purpose and need
- Helps inform Board decision on what to study in EIS*

^{*} Scope of EIS also subject to Federal Transit Administration (FTA) oversight

How to provide scoping comments

- Comment online: wsblink.participate.online
- Email us: wsbscopingcomments@soundtransit.org
- Leave a voicemail: 833-972-2666
- Mail us:
 - West Seattle and Ballard Link Extensions, c/o Lauren Swift, Sound Transit, 401 S. Jackson St., Seattle, WA 98104

Alternatives development



VOTER APPROVAL

WE ARE HERE





DESIGN



CONSTRUCTION

2025-2035*



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PUBLIC INVOLVEMENT / TESTING

PUBLIC INVOLVEMENT

What is an Environmental Impact Statement?

- Starts with scoping
- Evaluates reasonable range of alternatives

- Identifies potential impacts
- Identifies potential mitigation

Environmental Impact Statement (EIS)

What is typically studied in an

Transportation





- Ridership
- Transit
- Regional and local traffic
- Non-motorized facilities and modes
- Freight movement
- Marine navigation
- Aviation
- Construction traffic

Natural Environment

Built Environment

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

- Noise and vibration
- Economic effects
- Visual resources
- Parks resources
- Land use
- Acquisitions, displacements and relocations
- Energy use
- Hazardous materials
- Public services and utilities
- Impacts on low income and minority populations
- Cultural, historic and archaeological resources
- Construction impacts

Design phase



VOTER APPROVAL

WE ARE HERE



DESIGN



START OF SERVICE



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PUBLIC INVOLVEMENT / TESTING

PUBLIC INVOLVEMENT

Acquisition/relocation process



Before DEIS publication (mid 2020)

ST contacts potentially affected property owners



After DEIS publication (late 2020)

Board confirms or modifies preferred alternative



After FEIS publication (early 2022)

Board selects project to be built



During Final Design (2022-2026)*

ST identifies full/partial acquisitions

Board authorizes property purchases

Appraiser contacts property owner

Property owner receives offer based on fair market value

ST purchases property

Moving reimbursement, relocation services and referrals

for replacement properties

Dedicated community outreach staff available



West Seattle / Duwamish Level 2 ELG recommendations

Alternative	Public feedback - common themes	Do Not Carry Forward?	Carry Forward?	w/suggested refinements?
ST3 Representative Project				
Oregon Street / Alaska Junction / Elevated	 Concern about elevated guideway across California Ave If elevated, explore locating terminus station east of Junction 	✓		
Oregon Street / Alaska Junction / Tunnel	 General support for north crossing of Duwamish due to less environmental effects; but interest in minimizing freight effects Concern about Junction station location at 44th Concern with higher guideway along Genesee Explore Junction station location at 41st/42nd 	√		
Golf Course / Alaska Junction / Tunnel	 General support for this alternative, with development opportunities at Delridge station location to serve neighborhood Support for lower guideway along Genesee Explore Junction station location at 41st/42nd Explore north crossing of Duwamish 		✓	Explore Junction station location at 41st/42nd Explore north crossing of Duwamish
Pigeon Ridge / West Seattle Tunnel	 Concern about overall cost and environmental effects Support for lower guideway along Genesee and support for fewer residential effects in Delridge Support for Junction station location at 42nd 	✓		

West Seattle / Duwamish

Level 2 ELG general discussion

- Interest in good transfer environment and transit-oriented development (TOD) opportunities at Delridge Station
- Concern with location of station on Fauntleroy; does not serve Alaska Junction well and too close to Avalon Station
- Concern with state freight mobility impacts of construction of Duwamish crossing north of West Seattle Bridge
- Adopt SAG recommendations on modifying ST3 Representative Project
- > Explore tradeoffs with 44th Ave station location
- Continued interest in Junction station at 42nd Ave