



West Seattle and Ballard Link Extensions

Stakeholder Advisory Group Meeting #4 – April 24, 2018

Meeting Summary

Agenda Item #1 – Welcome and introductions

Diane Adams, Facilitator, welcomed the Stakeholder Advisory Group (SAG) members to the group's fourth meeting. She noted that the meeting was the second part of the Level 1 alternatives evaluation discussion with the goal of meeting #4 being to reach a recommendation on which alternatives should and should not be carried forward into Level 2 screening.

Agency directors, project leads and staff in attendance were:

- Cathal Ridge, Central Corridor Director, Sound Transit
- Diane Adams, Facilitator
- Jim Parsons, Consultant Project Manager, HNTB
- Ron Endlich, Project Director, Sound Transit
- Kate Lichtenstein, Senior Project Manager, Sound Transit
- Stephen Mak, High Capacity Transit Development Manager, Sound Transit
- Leda Chahim, Government & Community Relations Manager, Sound Transit
- Carrie Avila-Mooney, Government & Community Relations Manager, Sound Transit
- Andrea Burnett, Community Outreach Supervisor, Sound Transit
- Sandra Fann, High Capacity Transit Development Manager, Sound Transit
- Wesley King, Central Corridor Operations Director, Sound Transit
- Jeanne Krikawa, Station Area Planning, The Underhill Company
- Dennis Sandstrom, External Engagement, EnviroIssues

SAG members in attendance were:

- Abigail Doerr, Transportation Choices Coalition
- Andres Arjona, Community Representative – Ballard
- Brian King, Community Representative – West Seattle
- Bryce Yadon, Futurewise
- Colleen Echohawk, Chief Seattle Club
- 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
- Jon Scholes, Downtown Seattle Association
- Julia Park, Community Representative – Ballard
- Larry Yok, Community Representative – Chinatown-International District
- Maiko Winkler-Chin, Seattle Chinatown-International District Preservation & Development Authority
- Mike Stewart, Ballard Alliance
- Peter Schrappen, Northwest Marine Trade Association



- Robert Cardona, Community Representative – Uptown
- Ron Severt, Space Needle
- Scott Rusch, Fred Hutchinson Cancer Research Center
- Steve Lewis, Alliance of People with disAbilities
- Walter Reese, Nucor Steel
- Warren Aakervik, Community Representative – Freight

NOTE – the following SAG members were not in attendance:

- Becky Asencio, Seattle Public Schools
- Dave Gering, Manufacturing Industrial Council
- Katie Garrow, Martin Luther King Labor Council
- Mark Nagle, Expedia
- Paul Lambros, Plymouth Housing
- Savitha Reddy Pathi, Wing Luke Museum of the Asian Pacific American Experience
- Willard Brown, Delridge Neighborhood Development Association

Agenda Item #2 – Recap of meeting #3

Diane reviewed the meeting summary from the April 17 SAG meeting, which was included in SAG member binders. During the April 17 meeting, SAG members broke up into small groups, and with a facilitator, discussed the following:

- Alternatives for each segment
- Level 1 evaluation measures
- Segment summaries with key findings

Cathal Ridge followed up on the following questions posed during the April 17 SAG meeting:

- ST3 Plan consistency: The voter-approved ST3 Plan identifies the mode, corridor, number of stations and general station locations. Some of the suggestions during Early Scoping were considered not consistent with the plan.
- 3rd Party funding: The potential need for third-party funding is based on qualitative cost assessments. During Level 2 screening, Sound Transit will work to identify quantitative cost estimates. If 3rd party funding is found to be necessary and funding is not identified, some alternatives may ultimately be deemed impractical.

Agenda Item #3 – How we get to a recommendation

Cathal Ridge presented an overview of the process to be used in the meeting to reach a Level 1 recommendation. Starting with the non-practical suggestions raised during early scoping, SAG members would be asked to discuss whether any of the alternatives should be carried forward. Next, SAG members would be asked to discuss the alternatives with greater challenges and determine whether the alternatives should be carried forward and whether there were any suggestions for refinements. Finally, the SAG members would be asked to discuss the alternatives with more potential to identify how they might be refined.



Agenda Item #4 – Level 1 recommendation discussions

SAG members worked in groups of five to seven to discuss the alternatives and summary sheets for each segment, ask any clarification questions, and make recommendations.

Smith Cove, Interbay and Ballard

Kate Lichtenstein, Sound Transit, reviewed the evaluation measures and segment summaries for the Interbay/Ballard segment. See the PowerPoint presentation for additional details about each alternative/suggestion.

- Elliott/15th/16th/Fixed Bridge
- West of BNSF/20th/17th/Fixed Bridge
- East of BNSF/14th/Moveable Bridge
- West of BNSF/20th/17th/Tunnel
- Elliott/Armory Way/14th/Tunnel
- West of BNSF/20th/Tunnel
- Tunnel through Queen Anne/Interbay
- Extensions to 65th/85th/Northgate
- Multi-modal Salmon Bay bridge
- Eliminate or add stations

Questions (Q) and answers (A), comments (C) and refinements (R) from SAG members during the breakout group discussion included the following:

Elliott/15th/16th/Fixed Bridge

Q: How high would a fixed bridge be compared to the existing Ballard Bridge?

A: The existing Ballard Bridge has a clearance of approximately 45 feet high above water; a fixed bridge would likely need to have a clearance of approximately 136 feet to allow for vessel traffic.

R: The alignment on 15th and Elliott Ave should be relocated to avoid traffic and freight impacts.

There was agreement amongst the SAG members to carry this alternative forward.

West of BNSF/20th/17th/Fixed Bridge

Q: Could the light rail tracks go over or under the BNSF yard?

A: This alternative includes an elevated crossing over BNSF property. The “West of BNSF/20th/17th/Tunnel” and “West of BNSF/20th/Tunnel” alternatives include tunneling under BNSF property.

C: Future land use plans in the Interbay area should inform where the station is located.

C: Ensure the stations are in locations that are accessible, especially for people with disabilities.



There was agreement amongst the SAG members to carry this alternative forward.

East of BNSF/14th/Moveable Bridge

Q: How many times per day is the movable bridge expected to be opened?

A: Sound Transit is studying how often a movable bridge would potentially open. Opening frequency depends on the height of the bridge and is potentially affected by the seasons. The ST3 plan assumed a movable bridge of about 70 feet in height which was estimated to open between two and four times per day.

Q: What are the challenges with a 14th Avenue station?

A: The alternatives with a Ballard Station on 14th Avenue are rated lower in terms of development potential because they are currently within industrial-zoned land outside (within one block of) the Ballard Hub Urban Village boundary. However, during recent stakeholder outreach and agency workshops, we have heard ideas about potentially shifting 14th Ave stations further north and northwest, closer to Market Street and 15th Ave. If those shifts were to happen, the stations would potentially be within the Ballard Hub Urban Village boundary and closer to areas zoned for transit-supportive development.

C: Additional analysis needs to be done to determine how much a movable bridge would impact reliability. (Several SAG members expressed concerns about the reliability of a movable bridge.)

R: The Smith Cove station should be located closer to Smith Cove, rather than the cruise ship terminal due to variable seasonal demand.

R: Move the station further north in Ballard, closer to the density and out of the industrial area.

There was agreement amongst the SAG members to carry this alternative forward.

West of BNSF/20th/17th/Tunnel

Q: Could private funding be used?

A: Potentially. Sound Transit will be conducting quantitative cost estimates during Level 2, which may clarify whether 3rd party funding is needed.

C: This alternative has received widespread community support and should be carried forward.

There was agreement amongst the SAG members to carry this alternative forward.

Elliott/Armory Way/14th/Tunnel

C: The station location east of 15th Avenue is not preferred because it is in an industrial area and people would have to cross 15th Avenue to reach old Ballard.

R: Stations should be located close to current and future density in Interbay.

R: Move the station further north in Ballard, closer to the density and out of the industrial area.



There was agreement amongst the SAG members to carry this alternative forward.

West of BNSF/20th/Tunnel

Q: Are there fatal flaws with the 20th Avenue tunnel?

A: Conceptually, it is the longest tunnel and could potentially be the most expensive of the tunnel options.

C: Tunnel stations are preferred because their location is more flexible than above ground stations.

C: This alternative has community support from those who feel the Ballard station should be close to the center of Ballard.

There was a mix of opinions on this alternative, but SAG members agreed to carry this alternative forward.

Tunnel through Queen Anne/Interbay

There was agreement amongst the SAG members to not carry this suggestion forward.

Extensions to 65th/85th/Northgate

C: Sound Transit should be mindful of future extensions to the north and east when planning the configuration of the terminus station.

There was agreement amongst the SAG members to not carry this suggestion forward.

Multi-modal Salmon Bay bridge

Q: What would a multi-modal bridge accommodate? What would it look like?

A: Conceptually, an intermodal bridge would have space for modes other than light rail including bikes, pedestrians, cars, etc.. Such a bridge would need to be designed much differently than a rail-only bridge due to the different requirements for various modes.

C: This option should not be precluded if the funding options have not been fully explored.

There was agreement amongst the SAG members to not carry this suggestion forward, with a minority opinion to carry it forward.

Eliminate or add stations

There was agreement amongst the SAG members to not carry this suggestion forward.

Downtown, South Lake Union and Seattle Center



Ron Endlich, Sound Transit, reviewed the evaluation measures and segment summaries for the Downtown segment. See the PowerPoint presentation for additional details about each alternative/suggestion.

- 5th/Harrison
- 6th/Boren/Roy
- 5th/Mercer
- 5th/Roy/Consolidated SLU Station
- 8th/6th/Republican (First Hill)
- Use Downtown Seattle Transit Tunnel
- Design for potential extensions to north and/or east

Questions and answers, comments and refinements from SAG members during the breakout group discussion included the following:

5th/Harrison

C: The station should serve Uptown residents. They will be the daily users, whereas Key Arena patrons will only use light rail for events.

R: The tunnel portal should be relocated to Kinneer Park, if possible.

There was agreement amongst the SAG members to carry this alternative forward.

6th/Boren/Roy

C: Stations should have entrances on both sides of Roy Street.

C: The stations on Boren and Roy streets are less accessible because they are adjacent to steep grades.

There was agreement amongst the SAG members to carry this alternative forward.

5th/Mercer

Q: How would Sound Transit mitigate the sewer line issue?

A: Solutions would be explored during ongoing analysis.

C: Mercer is a major freight corridor and should be avoided to limit impacts on freight and traffic.

R: Stations should be bored rather than cut-and-cover to minimize impacts to traffic on Mercer Street.

There was consensus amongst the SAG members to not carry this alternative forward.

5th/Roy/Consolidated SLU Station

C: Consolidating stations is not preferred.



There was consensus amongst the SAG members to not carry this alternative forward.

8th/6th/Republican (First Hill)

Q: What are the soil conditions under First Hill?

A: Sound Transit has not yet evaluated the soil conditions in this particular location.

C: Providing access to healthcare facilities is an important consideration, especially for people who frequently use the human service centers in Pioneer Square and Downtown.

C: There is still a significant gap between where the station is located on 8th and the healthcare facilities on First Hill.

C: The constructability challenges with tunneling under I-5 twice are difficult to justify when there are limits on how far east the First Hill station could be located.

C: A First Hill station should not be eliminated because of consistency with ST3 because it was promised in Sound Move. First Hill is a major employment center and residential hub that would benefit from having access to light rail.

C: The station location is not accessible for people with disabilities from Downtown because of the steep grades west of the station.

There was a mix of opinions on this alternative, but SAG members agreed to carry this alternative forward.

Use Downtown Seattle Transit Tunnel

Q: What are the specifics about the station capacity constraints?

A: There is not sufficient long-term capacity in the existing downtown transit tunnel to achieve future service frequency goals.

There was agreement amongst the SAG members to not carry this suggestion forward.

Design for potential extensions to north and/or east

There was agreement amongst the SAG members to not carry this suggestion forward.

General questions and comments

C: Impacts to freight should be carefully considered, especially on Mercer Street.

C: More information about walksheds and population density is needed to make decisions about station locations.



SODO, Stadium and Chinatown-International District

Ron Endlich reviewed the evaluation measures and segment summaries for the SODO segment. See the PowerPoint presentation for additional details about each alternative/suggestion.

- Surface E-3
- Massachusetts Tunnel Portal
- Maintain buses on E-3
- First Ave alignment
- Design for potential extension south to Georgetown

Questions and answers, comments and refinements from SAG members during the breakout group discussion included the following:

Surface E-3

C: A cut-and-cover tunnel in the Chinatown-International District could result in substantial community impacts and should be avoided if possible.

C: Construction impacts on Royal Brougham should be mitigated.

There was agreement amongst the SAG members to carry this alternative forward.

Massachusetts Tunnel Portal

Q: Can additional grade crossings be added to this alternative?

A: Grade crossings could be added as refinements.

Q: How much longer would the Massachusetts Tunnel be?

A: This alternative results in a net increase in tunnel length of 800 linear feet (It replaces 2600 linear feet of cut-and-cover tunnel with 3400 linear feet of bored tunnel length).

R: There should be a Stadium station included in this alternative, or a way to access the stadiums.

R: Add a vehicle overcrossing at S. Lander Street.

R: If possible, the tunnel portal should be located further south to avoid impacts in SODO.

R: If possible, a second Stadium station should be included in this alternative. It would be ideal to have two stations and impact Chinatown-International District as little as possible.

There was agreement amongst the SAG members to carry this alternative forward.

Maintain buses on E-3

C: There must be a plan for bus service during construction and once the E-3 busway is utilized by light rail.



There was agreement amongst the SAG members to not carry this suggestion forward.

1st Ave alignment

C: The current alternatives in SODO are limited. A 1st Ave alignment should be carried forward to provide something to weigh in on.

C: There is lot of potential for growth along 1st Avenue S. over the next 12 years and beyond. An alternative that provides access to those employment centers should be explored.

C: Several SAG members requested additional explanation about a potential 4th Avenue station site in the Chinatown-International District. They noted that the connections to other modes, including Amtrak and the Sounder, limited neighborhood impacts in Chinatown-International District, and future land use plans could make it an attractive option.

There was a mix of opinions regarding a 1st Ave alignment, but SAG members agreed to carry this suggestion forward.

The group also asked for further information regarding the feasibility of a 4th Avenue station location in the Chinatown-International District.

Design for potential extension south to Georgetown

There was consensus amongst the SAG members to not carry this suggestion forward.

General questions and comments

Q: What is a cut-and-cover station?

A: It is a method of construction that allows workers to excavate (“cut”) and build an underground station below temporary roadway decking (“cover”) while maintaining two-way vehicle and pedestrian traffic above.

C: More alternatives should be explored that provide benefits to SODO.

C: The SODO station area is currently being used as a park-and-ride and does not provide easy access to the employment centers on 1st Avenue S.

West Seattle and Duwamish

Stephen Mak, Sound Transit, reviewed the evaluation measures and segment summaries for the West Seattle/Duwamish segment. See the PowerPoint presentation for additional details about each alternative/suggestion.

- Oregon Street/Alaska Junction
- West Seattle Bridge/Fauntleroy
- Pigeon Ridge/West Seattle Tunnel



- Yancy Street/West Seattle Tunnel
- West Seattle Golf Course/Alaska Junction (Tunnel)
- Tunnel under Duwamish
- West Seattle Bridge
- Gondola, rail/bus bridge
- Extensions to Alki, Admiral, etc.

Questions and answers, comments and refinements from SAG members during the breakout group discussion included the following:

Oregon Street/Alaska Junction

C: Carry forward and include a study of a tunnel alternative.

R: The western portion (from Avalon to the Junction) of this alternative should be in a tunnel to avoid neighborhood impacts in West Seattle and near the Junction.

There was agreement amongst the SAG members to carry this alternative forward.

There was also agreement to carry forward an additional alternative that would refine this alternative to include a tunnel option from Avalon to the terminus.

West Seattle Bridge/Fauntleroy

C: Stations should provide easy access to neighborhood centers, and the Delridge station location would not achieve that.

There was agreement amongst the SAG members to not carry this alternative forward.

Pigeon Ridge/West Seattle Tunnel

C: This tunnel option should be carried forward because there are many unknowns with what costs will arise during the property acquisition phase.

There was agreement amongst the SAG members to carry this alternative forward.

Yancy Street/West Seattle Tunnel

C: The Junction station location does not serve the density in the area. However, the north-south orientation of the tunnel Alaska Junction Station is preferred.

There was agreement amongst the SAG members to not carry this alternative forward.

West Seattle Golf Course/Alaska Junction



Q: Could the alignment be moved to the north side of the golf course to reduce the 4(f) impacts?

A: This would be similar to the alignment of the suggested refinement of the Oregon Street/Alaska Junction alternative.

C: The consolidation of stations is not preferred.

C: The Delridge station location is preferred, because it is further south.

R: The West Seattle station location should be closer to the Junction.

R: The Avalon station should be located near key bus transfer points.

There was agreement amongst the SAG members to not carry this alternative forward.

Tunnel under Duwamish

There was agreement amongst the SAG members to not carry this suggestion forward.

West Seattle Bridge

There was agreement amongst the SAG members to not carry this suggestion forward.

Gondola, rail/bus bridge

There was agreement amongst the SAG members to not carry this suggestion forward.

Extensions to Alki, Admiral, etc.

C: Future extensions should not be precluded.

There was agreement amongst the SAG members to not carry this suggestion forward.

General questions and comments

C: Impacts to Harbor Island should be minimized.

Agenda Item #5 – Review group’s recommendations

Diane Adams reviewed the completed recommendation worksheets for each segment which noted whether each alternative was recommended to be carried forward, as well as comments and notes from SAG members.



Interbay and Ballard

	Alternative	Carry forward?	Comments
Alternatives with more potential	Elliott/15th/16th/Fixed Bridge	Yes	
	West of BNSF/20th/17th/ Fixed Bridge	Yes	
	East of BNSF/14th/Movable Bridge	Yes	
	West of BNSF/20th/17th/ Tunnel	Yes	
	Elliott/Armory Way/14th/Tunnel	Yes	
Alternatives with greater potential	West of BNSF/20th/Tunnel	Yes	<ul style="list-style-type: none"> Mixed opinions, but agreement to carry forward
Not practical suggestions	Tunnel through Queen Anne/Interbay	No	
	Extensions to 65th, 85th, Northgate	No	
	Multi-modal Salmon Bay bridge	No	<ul style="list-style-type: none"> Minority opinion to carry forward
	Eliminate or add stations	No	

Downtown, South Lake Union and Seattle Center

	Alternative	Carry forward	Comments
Alternatives with more potential	5th/Harrison	Yes	
	6th/Boren/Roy	Yes	<ul style="list-style-type: none"> Move Seattle Center station south
Alternatives with greater potential	5th/Mercer	No	<ul style="list-style-type: none"> Freight impacts on Mercer; some prefer Seattle Center station location
	5th/Roy/Consolidated SLU Station	No	
	8th/6th/Republican	Yes	<ul style="list-style-type: none"> Mix of opinions on carrying forward
Not practical suggestions	Use Downtown Seattle Transit Tunnel	No	
	Design for potential extensions to north and/or east	No	



SODO, Stadium and Chinatown-International District

	Alternative	Carry forward	Comments
Alternatives with more potential	Surface E-3	Yes	
	Massachusetts Tunnel Portal	Yes	<ul style="list-style-type: none"> Consider hybrid with full grade separation
Not practical suggestions	Maintain buses on E-3	No	<ul style="list-style-type: none"> Need to study impacts to buses during construction and long term
	First Ave alignment	Yes	<ul style="list-style-type: none"> Explore modifications that meet operational requirements, including potential additional station to serve First Avenue
	Design for potential extension south to Georgetown	No	
New suggestion	Alternative station location	Yes	<ul style="list-style-type: none"> Consider 4th Ave Station in Chinatown/ID

West Seattle and Duwamish

	Alternative	Carry forward	Comments
Alternatives with more potential	Oregon Street / Alaska Junction	Yes	<ul style="list-style-type: none"> Explore elevated and tunnel options
	West Seattle Bridge / Fauntleroy	No	
	Pigeon Ridge / West Seattle Tunnel	Yes	
Alternatives with greater challenges	Yancy Street / West Seattle Tunnel	No	
	West Seattle Golf Course / Alaska Junction	No	<ul style="list-style-type: none"> Add Avalon station, modify to reduce 4(f) impacts
Not practical suggestions	Tunnel under Duwamish	No	
	West Seattle Bridge	No	
	Gondola, rail/bus bridge	No	
	Extensions to Alki, Admiral, etc.	No	



Agenda Item #6 – Next steps and next meeting

Diane Adams thanked the SAG members for attending the meeting. Cathal Ridge explained the next steps with the SAG's recommendations: the completed recommendation worksheets, notes and refinements will be summarized and passed along to the ELG for their reference when making a recommendation to the Sound Transit Board.

One SAG member asked if there would be a recommendation from Sound Transit staff in addition to the SAG recommendation. Cathal explained that Sound Transit staff would only be passing along the SAG's recommendations. The next SAG meeting is scheduled for May 30 at Union Station.