



West Seattle and Ballard Link Extensions

Elected Leadership Group Meeting | May 17, 2018

Agenda

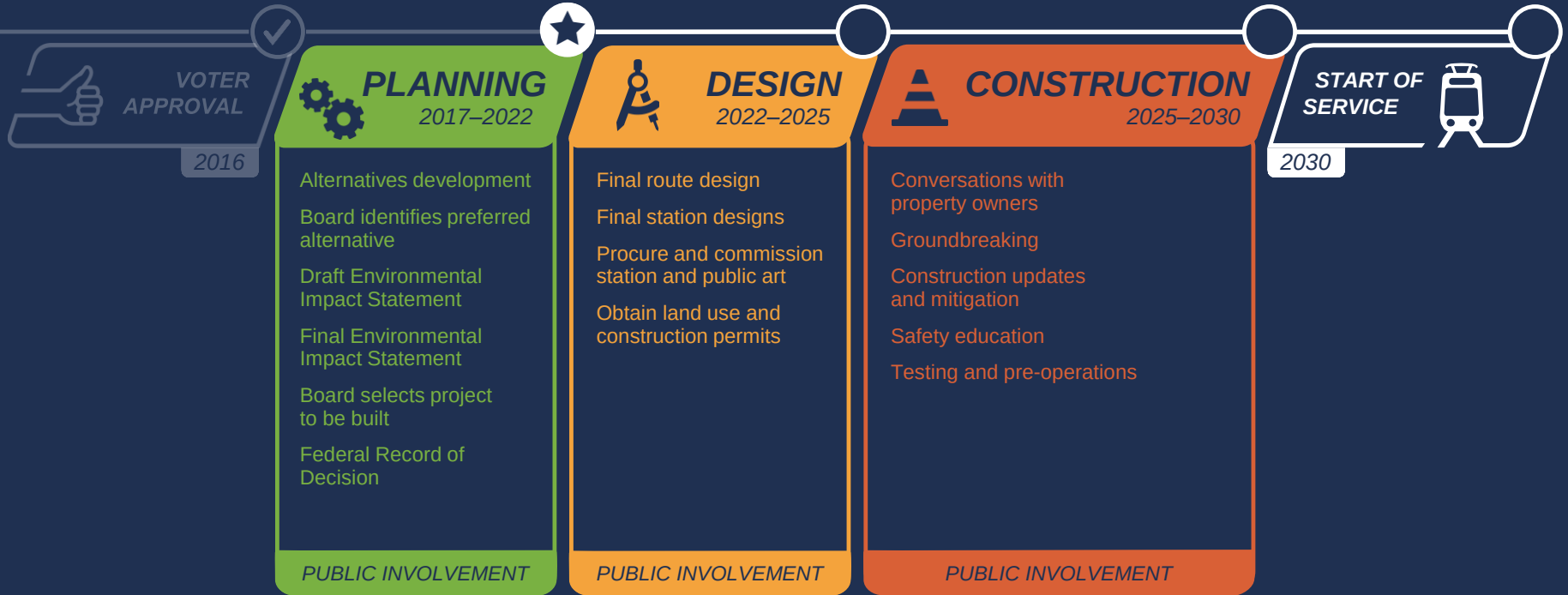
- › Community engagement and collaboration
- › Alternatives, results, feedback & SAG recommendations
 - › West Seattle
 - › SODO, Stadium, Chinatown/ID
 - › Downtown, South Lake Union, Seattle Center
 - › Smith Cove, Interbay, Ballard
- › Review recommendations and next steps



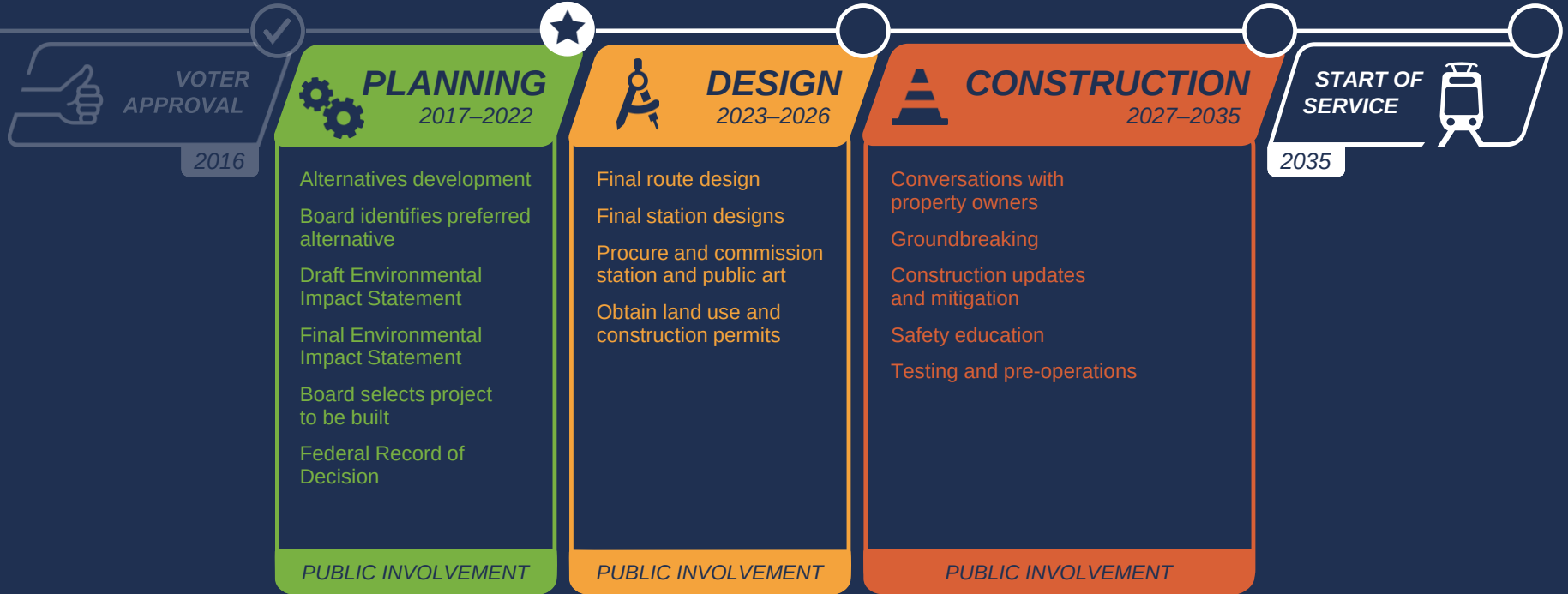
ST3 Representative project

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

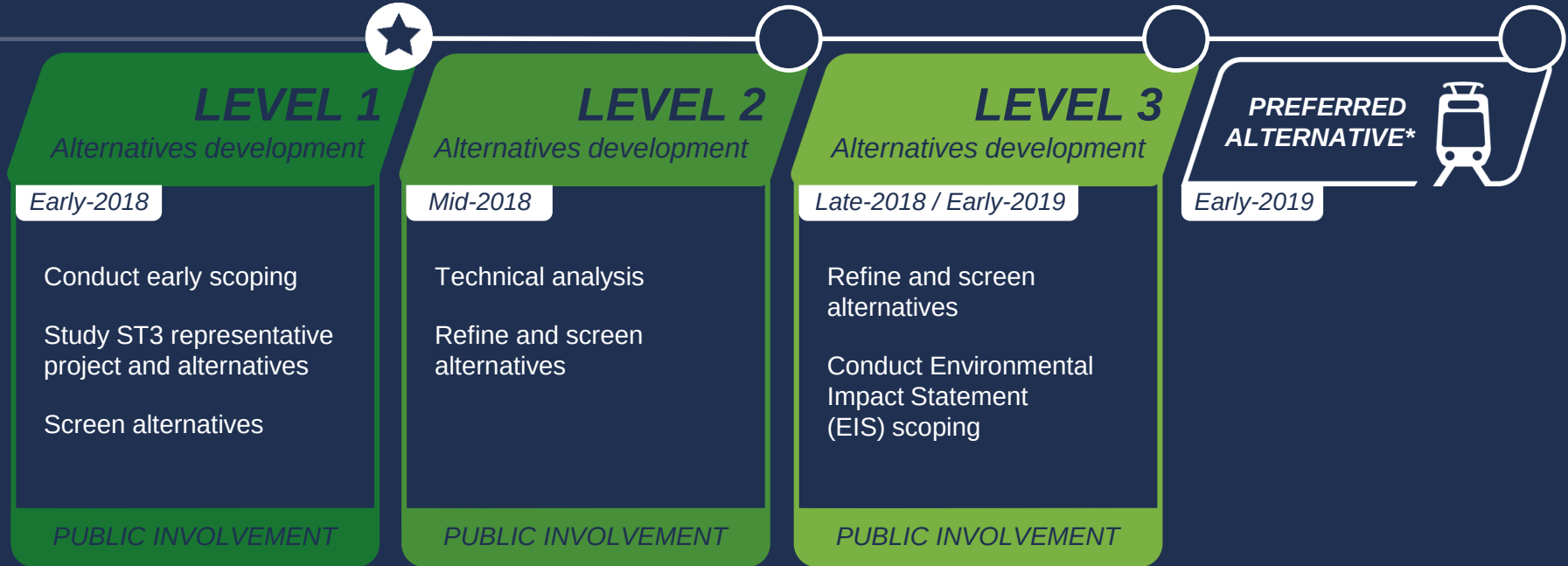
West Seattle project timeline



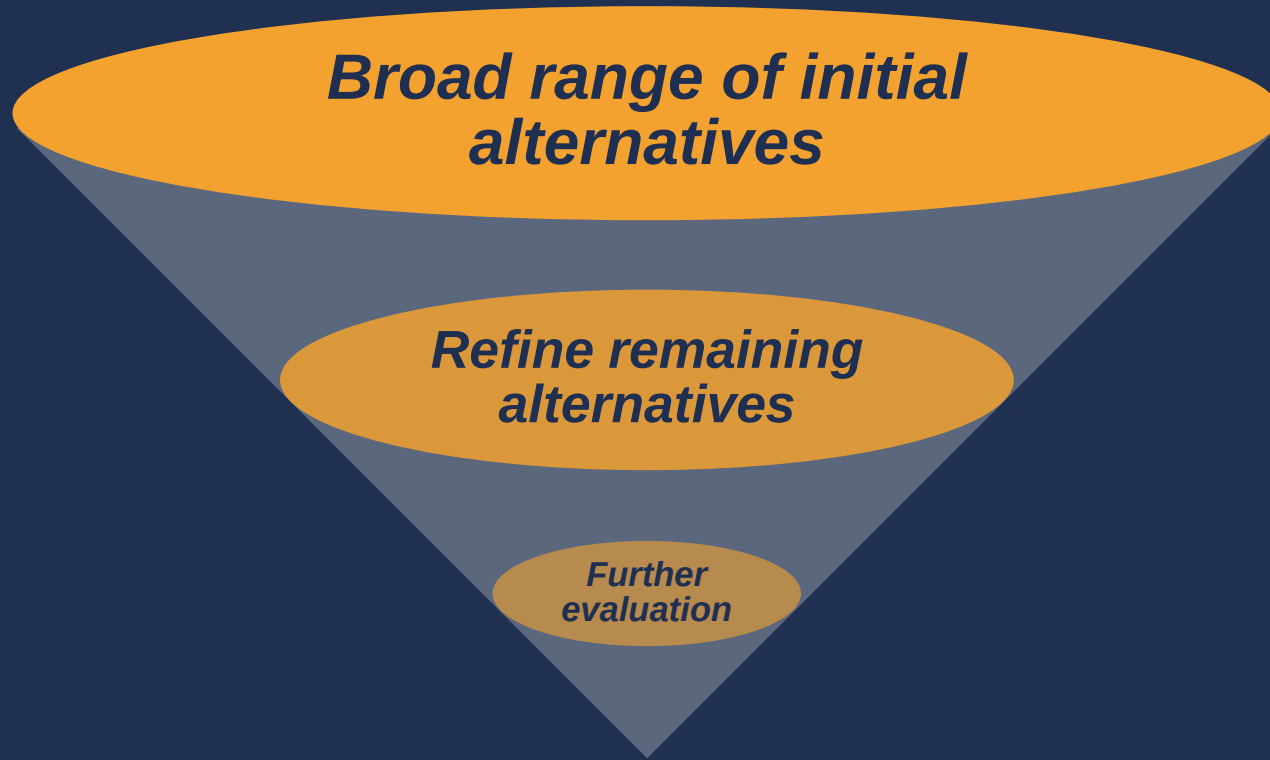
Ballard project timeline



Alternatives development process



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



***Preferred Alternative
and other EIS alternatives***



Community engagement and collaboration

Community engagement and collaboration



Meeting dates subject to change.



Early Scoping Summary Report

April 2018

Early Scoping

- Early scoping: Feb. 2 – March 5
- 3 public meetings, 1 agency meeting and online open house
- 2,800+ total comments received via meetings and other methods
- All comments captured in *Early Scoping Summary Report*



Neighborhood forums

- **4/21:** Chinatown / Int'l District
- **4/23:** Denny / SLU / Seattle Center
- **5/2:** Midtown / Westlake
- **5/5:** Delridge / Avalon / Alaska Junction
- **5/9:** SODO / Stadium
- **5/12:** Ballard / Interbay / Smith Cove

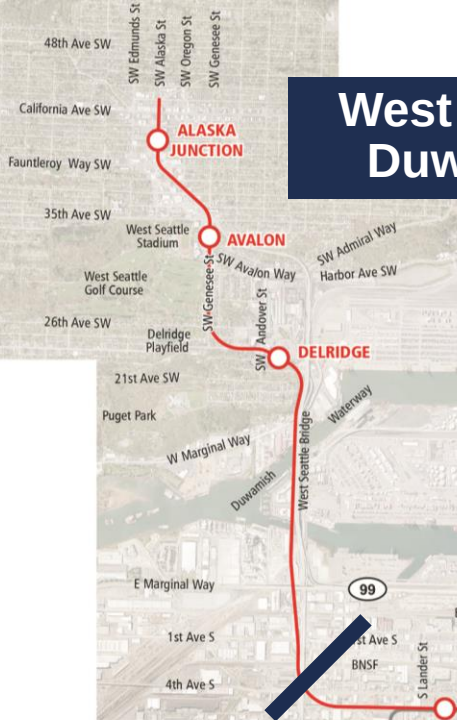
Stakeholder Advisory Group

- Build **consensus** around key project decisions and work through project issues as needed
- Make **recommendations** at key milestones, including:
 - Identifying alternatives to study during environmental review
 - Identifying a preferred alternative
 - Highlight specific issues and trade-offs in the corridor



Level 1 alternatives and evaluation

West Seattle/ Duwamish



SODO & Chinatown/ID

Downtown



Interbay/Ballard



KEY MAP

- Red line with circle: West Seattle extension/Station area
- Green line with circle: Ballard extension/Station area
- Grey line with circle: Existing Link/Station area



ST3 Representative project

1



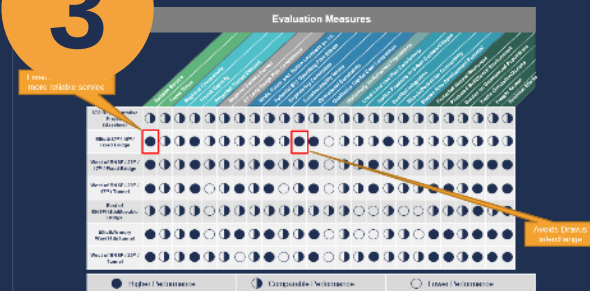
Early Scoping feedback

2



Map of segment alternatives

3



Evaluation measures

4



Neighborhood forums feedback

5

	ST3 Representative Project	• Baseline for comparison
Alternatives with more potential	Elliott/15th/16th Fixed Bridge	• Avoids 15th Ave/Dravus interchange • Supports more reliable service (no bridge openings)
Alternative	Alternative	• Key findings
Alternatives with greater challenges	Alternative	• Key findings
Alternative	Alternative	• Key findings
Not practical suggestions	Alternative	• Key findings
Alternative	Alternative	• Key findings

Segment summary

6



SAG recommendations

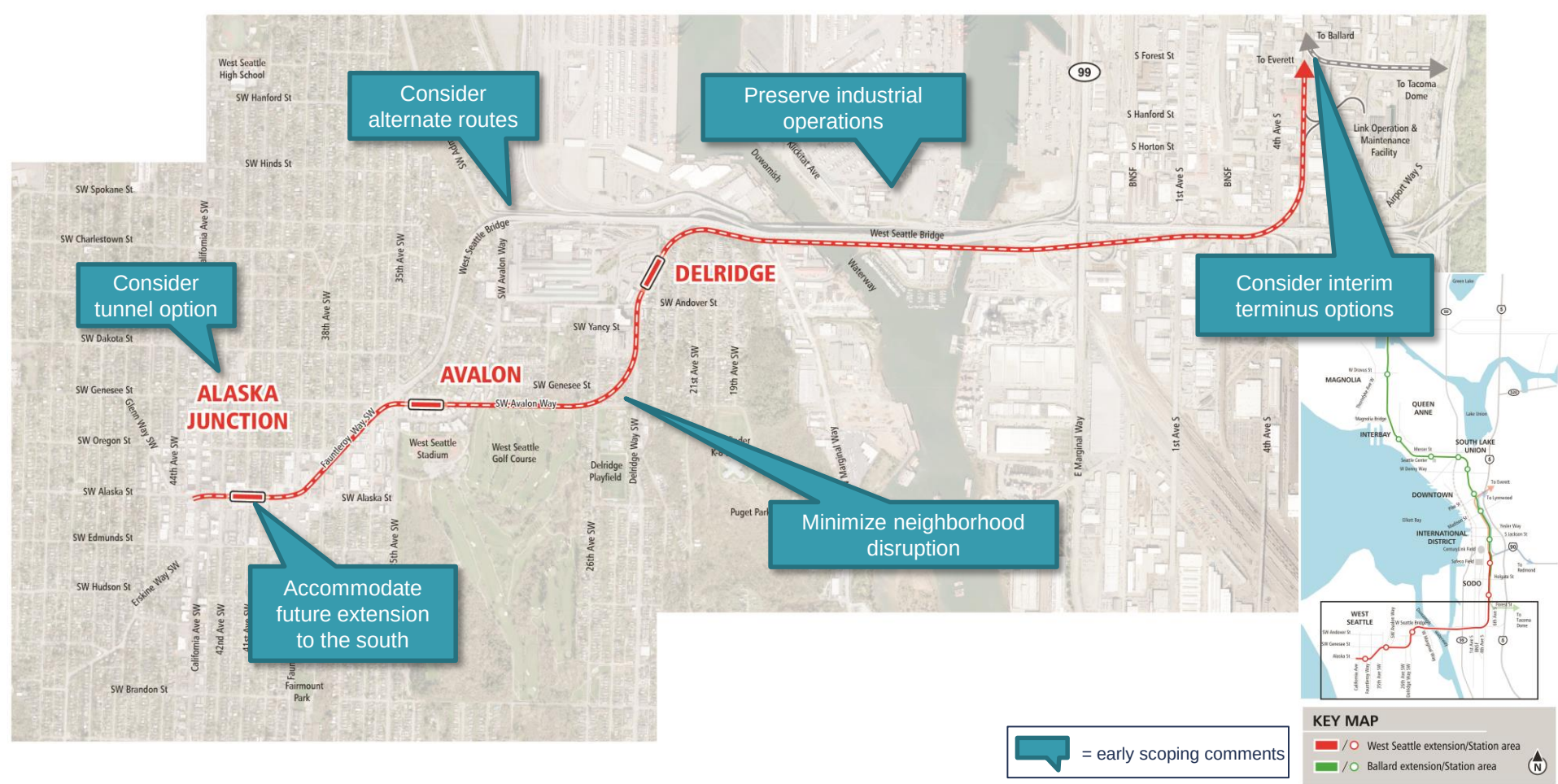
Sample segment summary

	ST3 Representative Project	Baseline for comparison
Alternatives with more potential	Alaska Junction	- Avoids Fauntleroy and Alaska; better orientation south - Affects Oregon St and 44th Ave
	West Seattle Bridge/Fauntleroy	- Lessens effects to Junction and Delridge; better orientation south - Creates isolated Delridge Station
	Pigeon Ridge/West Seattle Tunnel	- Lessens effects to Port, Junction, Delridge; better orientation south - Requires two tunnels; may require 3rd Party funding
Alternatives with greater challenges	Yancy Street/West Seattle Tunnel	- Lessens effects to Junction and Delridge; better orientation south Consolidates stations; potentially not consistent with ST3 Plan - Requires tunnel may require 3rd Party funding
	West Seattle Golf Course/Alaska Junction (Tunnel)	- Crosses golf course, Section 4(f) - Lessens effects to Junction, Delridge - Eliminates station; potentially not consistent with ST3 Plan
Not practical suggestions	Tunnel under Duwamish	Impractical tunnel depth and length
	Bridge	- Existing structure not built to accommodate LRT - Constructability issues
	Bridge	Mode not consistent with ST3 Plan
	Extensions to Alki, Admiral, etc.	Not included in ST3 Plan or long range plan

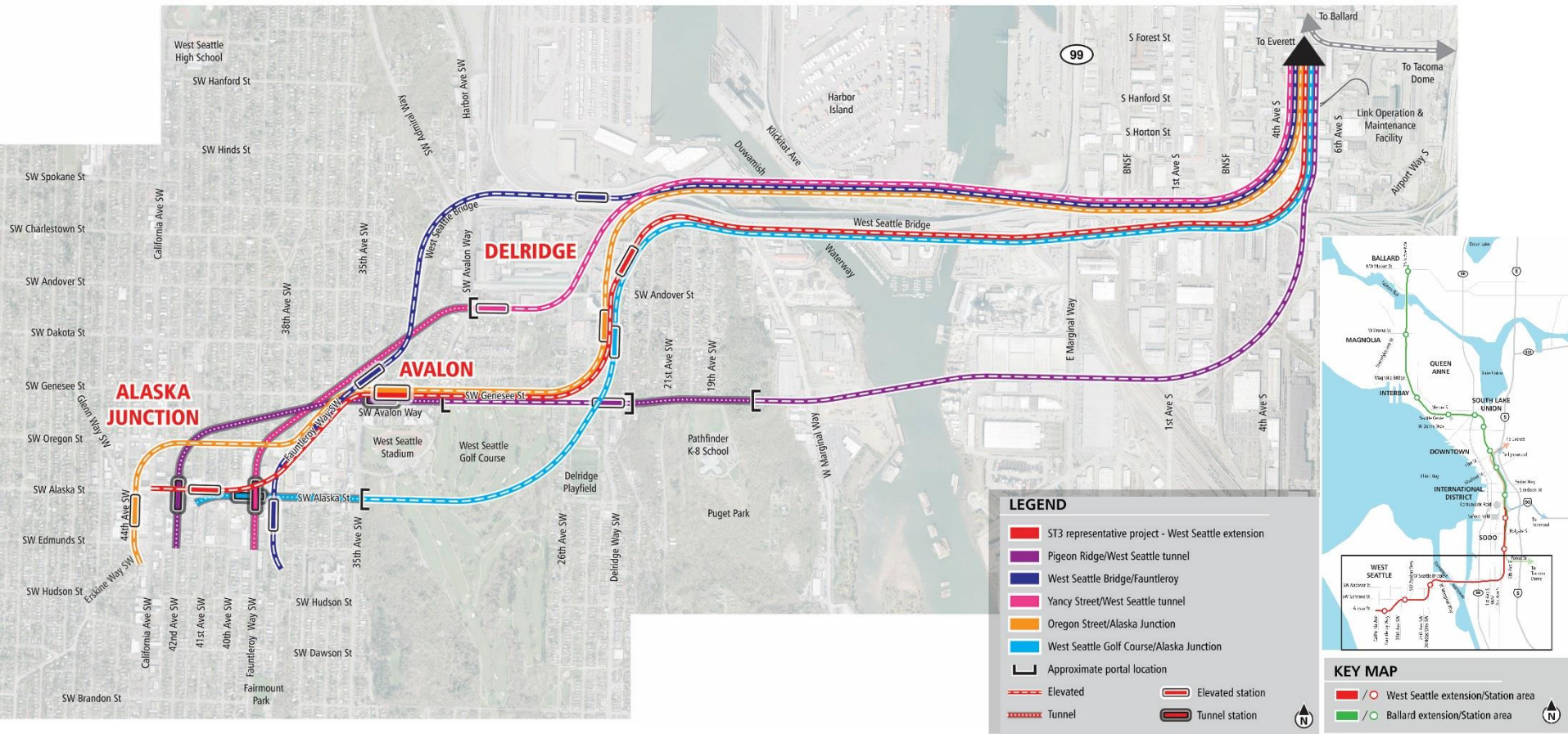
Funding identified?

Funding not identified?

may require 3rd Party funding

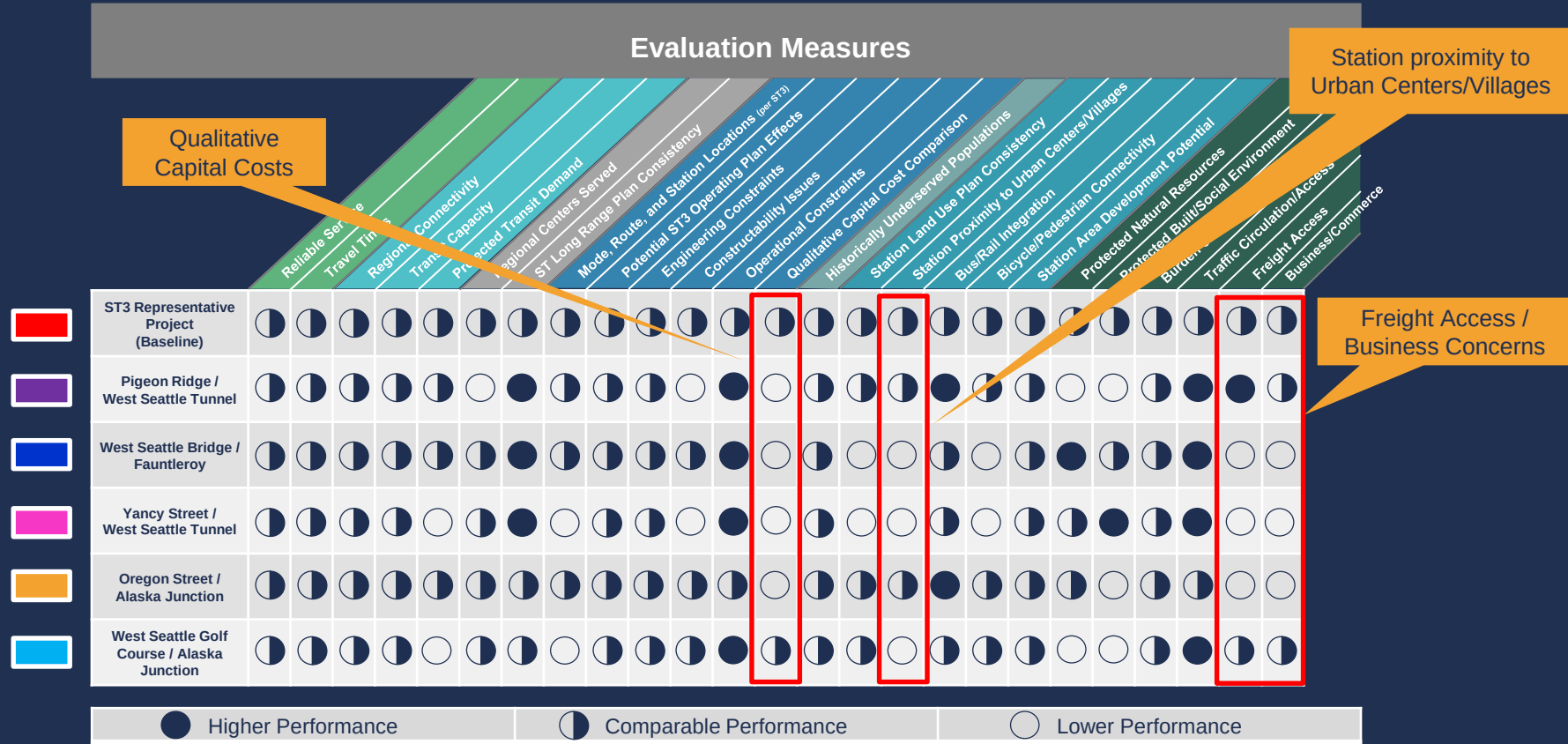


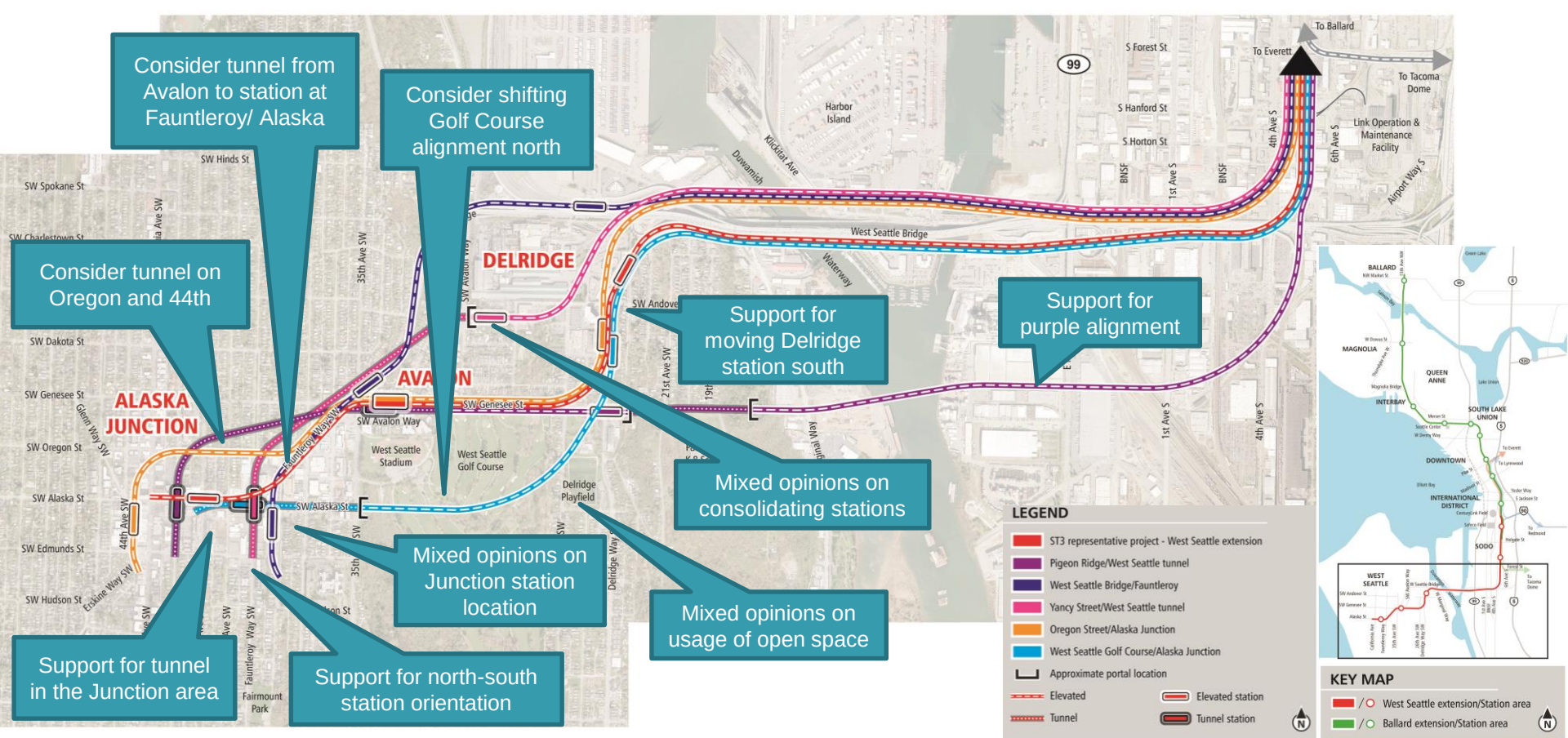
West Seattle/Duwamish – Early Scoping feedback



West Seattle / Duwamish – Level 1 alternatives

West Seattle / Duwamish evaluation





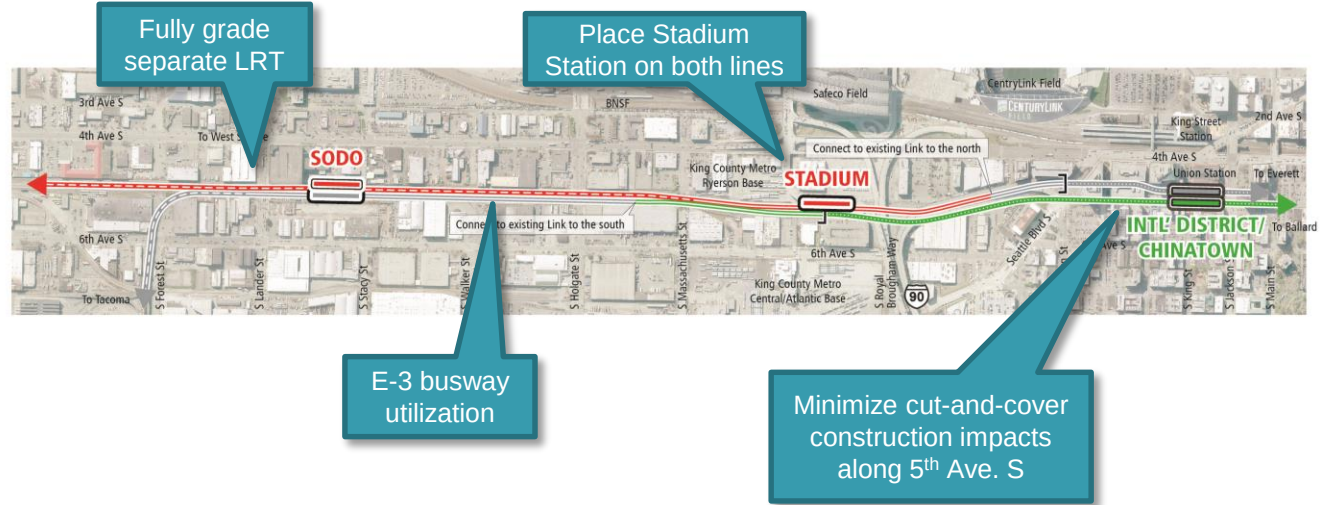
West Seattle/Duwamish – Neighborhood forums feedback

West Seattle / Duwamish summary

Alternatives with more potential	ST3 Representative Project 	• Baseline for comparison
	Oregon Street/Alaska Junction 	• Avoids Fauntleroy and Alaska; better orientation south • Affects Oregon St and 44th Ave
	West Seattle Bridge/Fauntleroy 	• Lessens effects to Junction and Delridge; better orientation south • Creates isolated Delridge Station
	Pigeon Ridge/West Seattle Tunnel 	• Lessens effects to Port, Junction, Delridge; better orientation south • Requires two tunnels; may require 3rd Party funding
Alternatives with greater challenges	Yancy Street/West Seattle Tunnel 	• Lessens effects to Junction and Delridge; better orientation south • Consolidates stations; potentially not consistent with ST3 Plan • Requires tunnel; may require 3rd Party funding
	West Seattle Golf Course/Alaska Junction (Tunnel) 	• Crosses golf course, Section 4(f) • Lessens effects to Junction, Delridge • Eliminates station; potentially not consistent with ST3 Plan
Not practical suggestions	Tunnel under Duwamish	• Impractical tunnel depth and length
	West Seattle Bridge	• Existing structure not built to accommodate LRT • Constructability issues
	Gondola, rail/bus bridge	• Mode not consistent with ST3 Plan
	Extensions to Alki, Admiral, etc.	• Not included in ST3 Plan or long range plan

West Seattle / Duwamish – SAG recommendations

	Alternative		Carry forward?	Do not carry forward?	Notes/Comments
Alternatives with more potential	ST3 Representative Project				
	Oregon Street/Alaska Junction		✓		Explore elevated and tunnel options
	West Seattle Bridge/Fauntleroy			✓	
	Pigeon Ridge/West Seattle Tunnel		✓		
Alternatives with greater challenges	Yancy Street/West Seattle Tunnel			✓	
	West Seattle Golf Course/Alaska Junction (Tunnel)			✓	Add Avalon station, modify to reduce 4(f) impact
Not practical suggestions	Tunnel under Duwamish			✓	
	West Seattle Bridge			✓	
	Gondola, rail/bus bridge			✓	
	Extensions to Alki, Admiral, etc.			✓	



= early scoping comments

SODO & Chinatown/ID – Early Scoping feedback 23



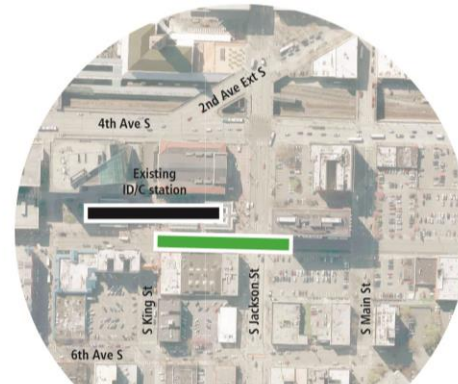
KEY MAP



LEGEND

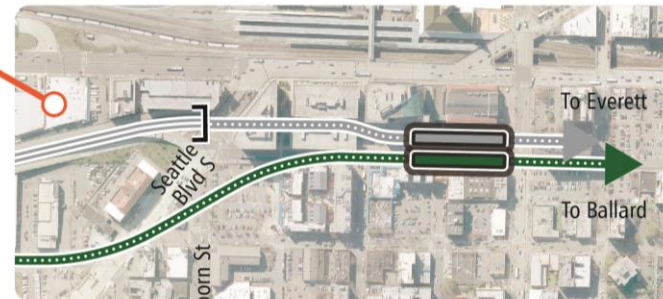


SODO & Chinatown/ID – Level 1 alternatives



Station location alternative (straddle S Jackson St)

Note: applicable to both cut and cover and bored tunnel alternatives

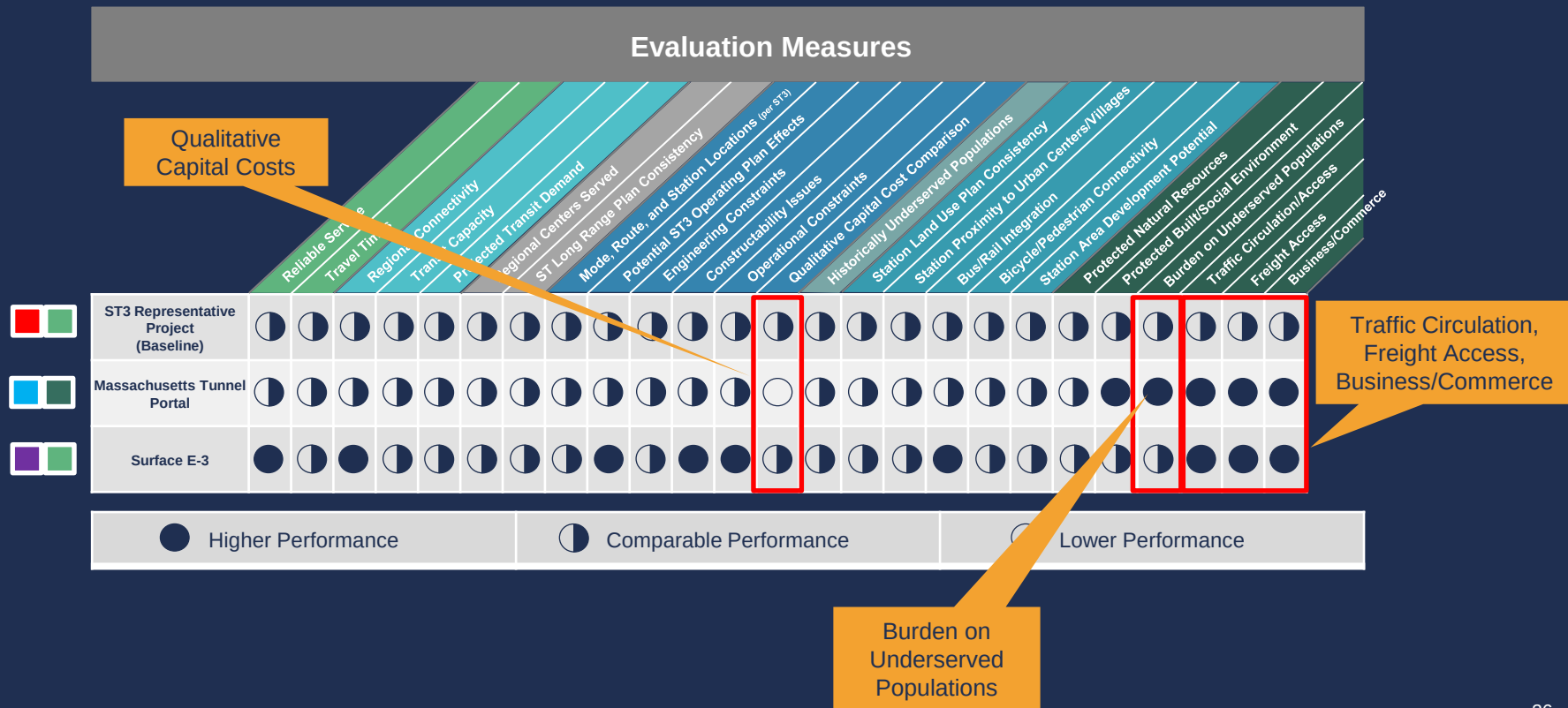


Bored tunnel alternative

Reduces in-street cut-and-cover construction from 1,600' to 400'

Chinatown/ID station alternatives

SODO & Chinatown/ID evaluation





Concern about displacing bike lanes and bus lanes

Consider adding grade-separated roadways

Consider ways to reduce cut-and-cover construction impacts (including potential 4th Ave station location)



Support for grade-separated roadways

Support for stations on both lines

Support for reducing cut-and-cover construction

Mixed opinions on closing Royal Brougham

SODO & Chinatown/ID – Neighborhood forums feedback

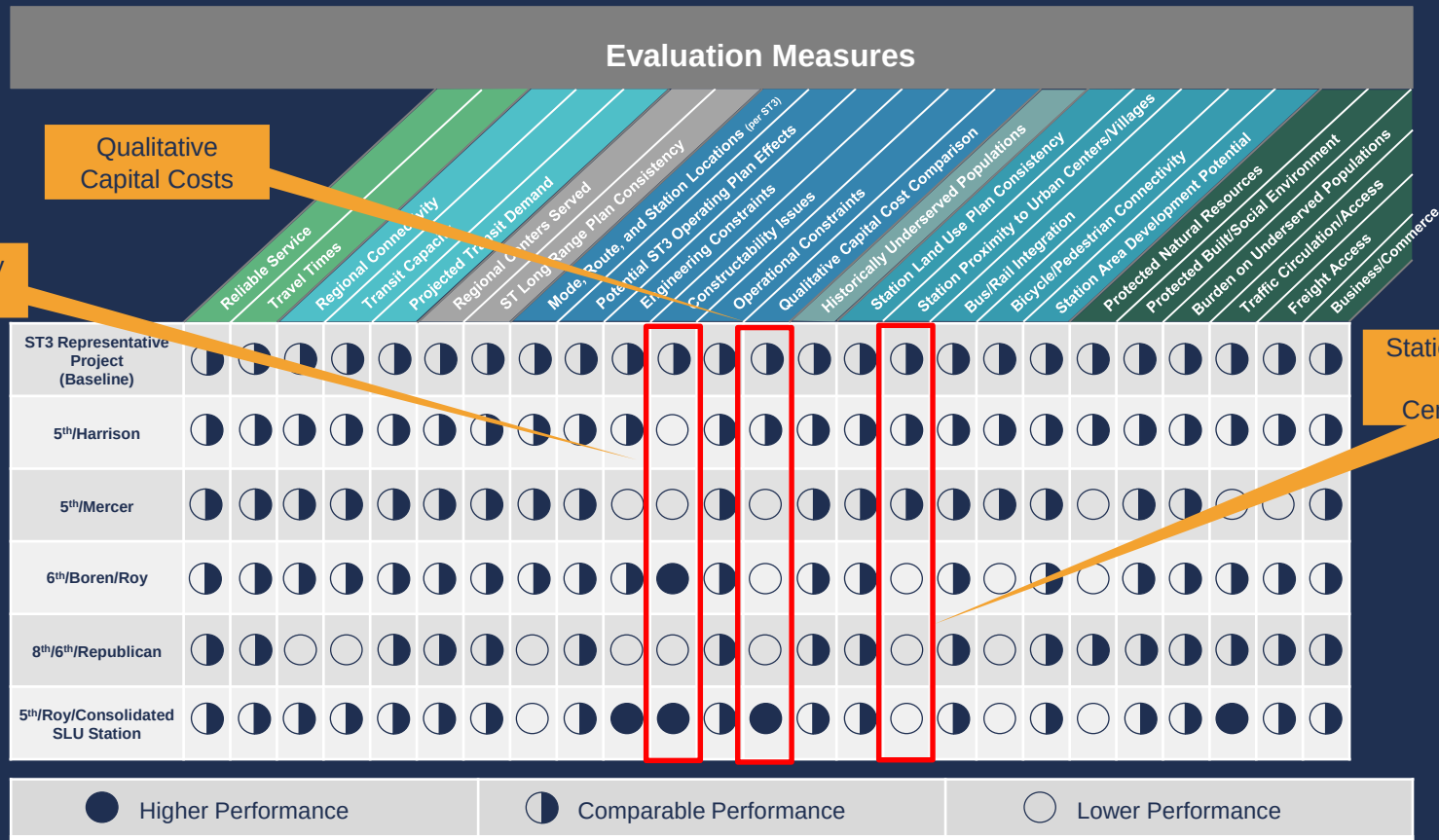
SODO & Chinatown/ID summary

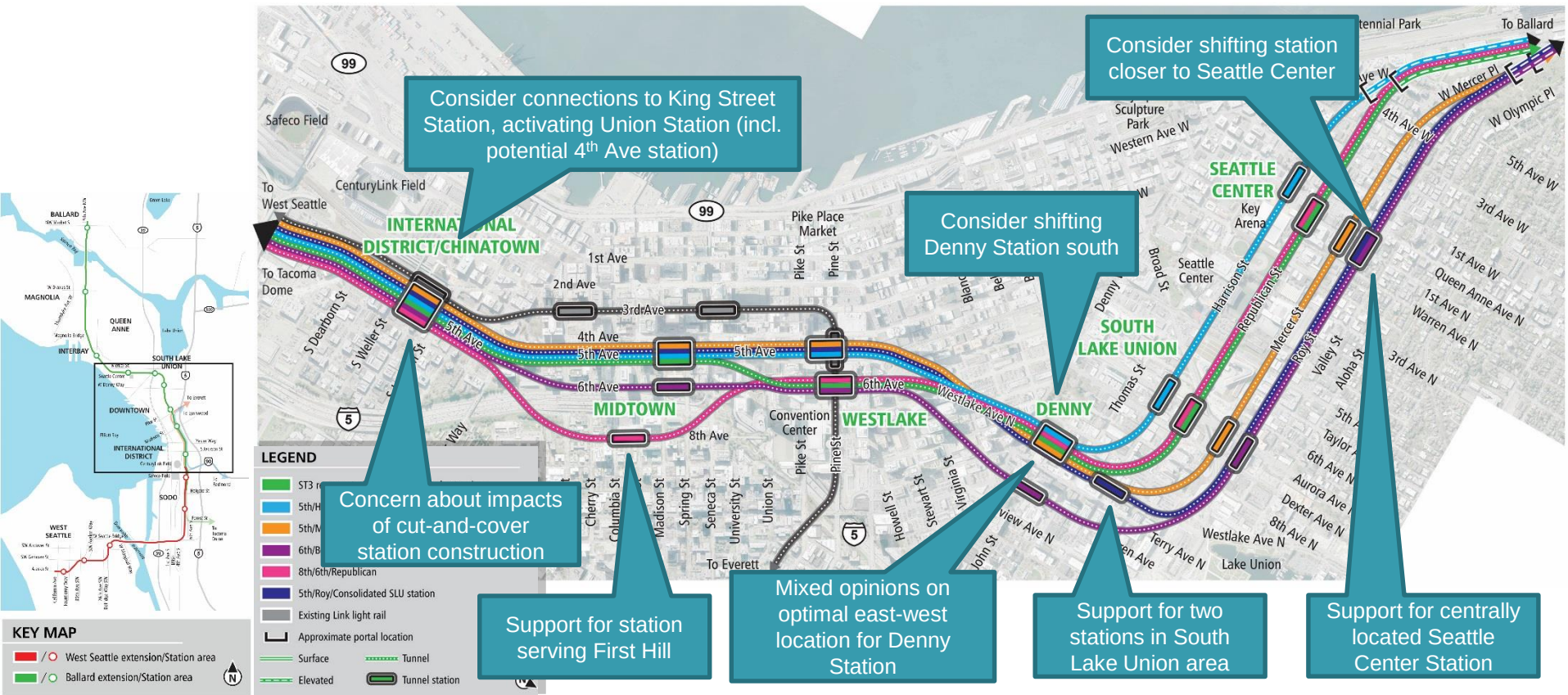
Alternatives with more potential	ST3 Representative Project 	• Baseline for comparison
	Surface E-3 	• Less service disruption during construction • Accommodates Stadium Station on both lines • Eliminates existing grade crossings at Lander, Holgate; closes Royal Brougham
	Massachusetts Tunnel Portal 	• Reduces cut-and-cover construction on 5th Ave in Chinatown/Int'l District • Less service disruption during construction • Eliminates existing grade crossing at Holgate • Requires longer tunnel; more property; may require 3rd Party funding
Not practical suggestions	Maintain buses on E-3	• Not practical due to ROW constraints
	First Ave alignment	• Alignment and stations locations not consistent with ST3
	Design for potential extension south to Georgetown	• Not included in ST3 or long range plan

SODO & Chinatown/ID – SAG recommendations

	Alternative		Carry forward?	Do not carry forward?	Notes/Comments
Alternatives with more potential	ST3 Representative Project 				
	Surface E-3 	✓			
	Massachusetts Tunnel Portal 	✓			Consider hybrid with full grade separation
Not practical suggestions	Maintain buses on E-3		✓		Need to study impacts to buses during construction and long term
	First Ave alignment	✓			Explore modifications that meet operational requirements, including potential additional station to serve First Ave
	Design for potential extension south to Georgetown		✓		
New suggestion	Alternative station location	✓			Consider 4 th Ave Station in Chinatown/ID

Downtown evaluation





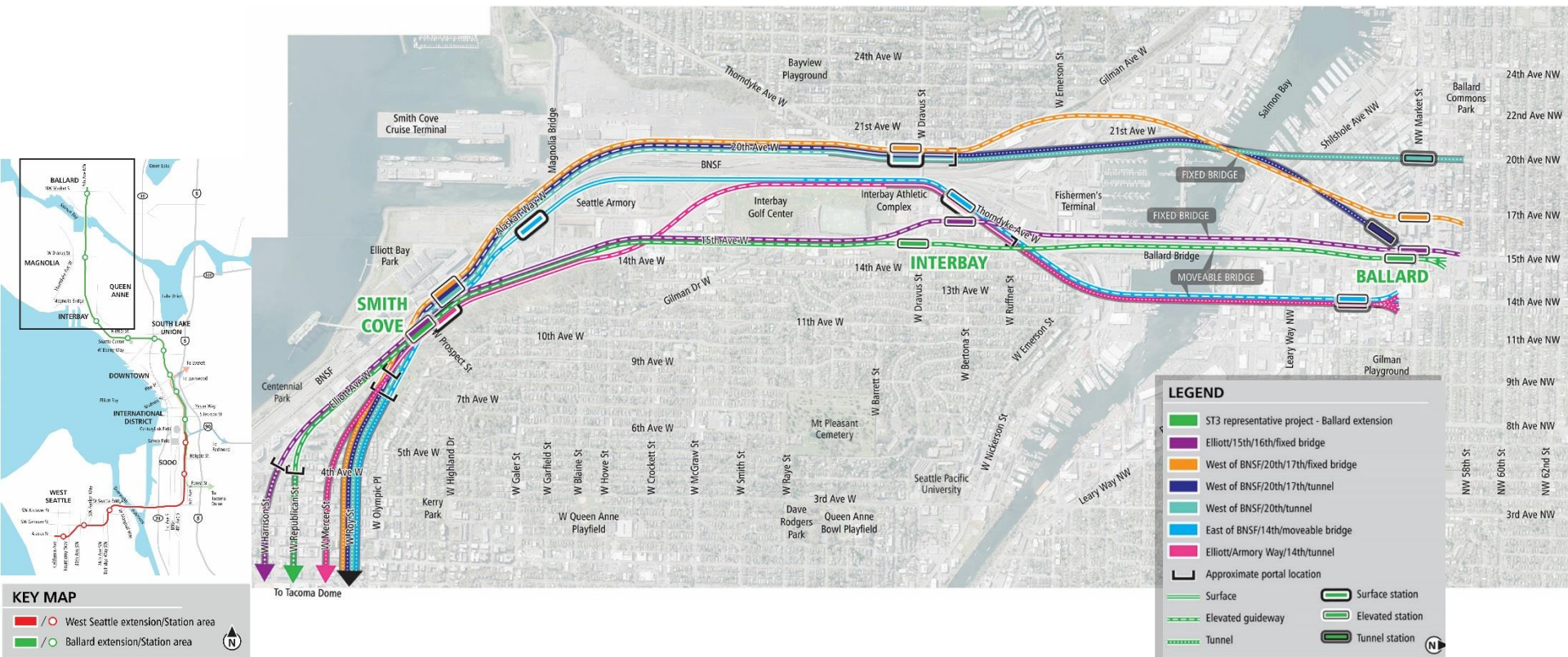
Downtown — Neighborhood forums feedback

Downtown summary

Alternatives with more potential	ST3 Representative Project 	• Baseline for comparison
	5th/Harrison 	• Avoids utility conflicts on Republican and station under SR 99 off-ramp • Decreased station coverage; potentially move Denny Station south
	6th/Boren/Roy 	• Avoids utility conflicts on Republican and station under SR 99 off-ramp • Increases construction risk due to I-5 walls along 6th Ave; avoids tiebacks on 5th Ave
Alternatives with greater challenges	5th/Mercer 	• Avoids utility conflicts on Republican and station under SR 99 off-ramp • Increases construction risk due to large sewer on Mercer
	5th/Roy/Consolidated SLU Station 	• Avoids utility conflicts on Republican and station under SR 99 off-ramp • Consolidates stations; potentially not consistent with ST3
	8th/6th/Republican (First Hill) 	• Increases construction risk due to two crossings under I-5 • First Hill station not consistent with ST3
Not practical suggestions	Use Downtown Seattle Transit Tunnel (DSTT)	• Existing DSTT capacity constraints
	Design for potential extensions to north and/or east	• Extensions to north and/or east not included in ST3 or long range plan

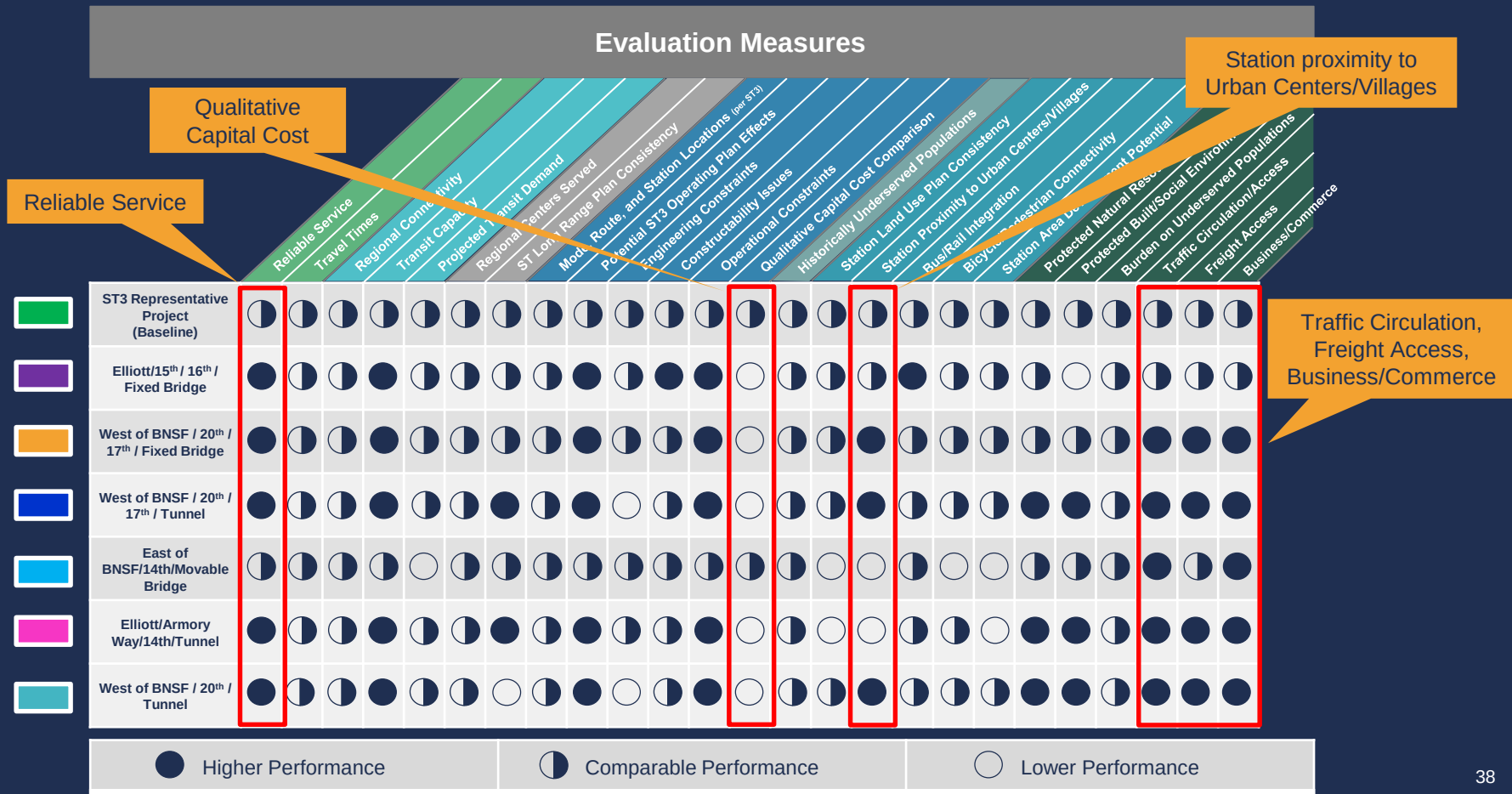
Downtown – SAG recommendations

	Alternative		Carry forward?	Do not carry forward?	Notes/Comments
Alternatives with more potential	ST3 Representative Project				
	5th/Harrison		✓		
	6th/Boren/Roy		✓		Move Seattle Center station south
Alternatives with greater challenges	5th/Mercer			✓	Freight impacts on Mercer; some prefer Seattle Center station location
	5th/Roy/Consolidated SLU Station			✓	
	8th/6th/Republican (First Hill)		✓		Mix of opinions on carrying forward
Not practical suggestions	Use Downtown Seattle Transit Tunnel (DSTT)			✓	
	Design for potential extensions to north and/or east			✓	



Interbay / Ballard – Level 1 alternatives

Interbay / Ballard evaluation



Consider access between Smith Cove Station and current and potential future land uses

Consider access between Interbay Station and current and potential future land uses

Consider effects to maritime and industrial uses

Mixed opinions on station at 20th Ave NW

Consider effects to traffic on Elliott and 15th Aves

Consider elevated and tunnel crossings

Consider shifting 14th Ave stations out of industrial area

Stations near 15th and 17th Aves facilitate intermodal connections



KEY MAP

Red line / circle West Seattle extension/Station area
Green line / circle Ballard extension/Station area



LEGEND

- ST3 representative project - Ballard extension
- Elliott/15th16th/fixed bridge
- West of BNSF/20th17th/fixed bridge
- West of BNSF/20th17th/tunnel
- West of BNSF/20th/tunnel
- East of BNSF/14th/moveable bridge
- Elliott/Armory Way/14th/tunnel
- Approximate portal location
- Surface
- Elevated guideway
- Tunnel
- Surface station
- Elevated station
- Tunnel station

Interbay / Ballard – Neighborhood forums feedback

Interbay / Ballard summary

Alternatives with more potential	ST3 Representative Project 	• Baseline for comparison
	Elliott/15 th /16 th /Fixed Bridge 	• Avoids 15 th Ave/Dravus interchange • Supports more reliable service (no bridge openings)
	West of BNSF/20 th /17 th /Fixed Bridge 	• Avoids Elliott Ave, 15 th Ave and Fishermen's Terminal • Supports more reliable service
	East of BNSF/14 th /Movable Bridge 	• Avoids Elliott Ave, 15 th Ave and Fishermen's Terminal • Locates station on 14 th Ave within industrial area
Alternatives with greater challenges	West of BNSF/20 th /17 th Tunnel 	• Avoids Elliott Ave, 15 th Ave, Fishermen's Terminal and Salmon Bay • Requires tunnel; may require 3 rd Party funding
	Elliott/Armory Way/14 th /Tunnel 	• Avoids Elliott Ave, 15 th Ave, Fishermen's Terminal and Salmon Bay • Requires tunnel; may require 3 rd Party funding
	West of BNSF/20 th /Tunnel 	• Avoids Elliott Ave, 15 th Ave, Fishermen's Terminal and Salmon Bay • Requires longer tunnel; may require 3 rd Party funding • Requires construction and displacement within Ballard core
Not practical suggestions	Tunnel through Queen Anne/Interbay	• Depth and length impractical; would affect downtown tunnel depth
	Extensions to 65 th , 85 th , Northgate	• Not included in ST3 plan
	Multi-modal Salmon Bay bridge	• ST3 plan defined project as rail-only bridge
	Eliminate or add stations	• Not consistent with ST3 plan

Interbay / Ballard – SAG recommendations

	Alternative		Carry forward?	Do not carry forward?	Notes/Comments
Alternatives with more potential	ST3 Representative Project				
	Elliott/15 th /16 th /Fixed Bridge		✓		
	West of BNSF/20 th /17 th /Fixed Bridge		✓		
	East of BNSF/14 th /Movable Bridge		✓		
	West of BNSF/20 th /17 th Tunnel		✓		
	Elliott/Armory Way/14 th /Tunnel		✓		
Alternatives with greater challenges	West of BNSF/20 th /Tunnel		✓		Mix of opinions on carrying forward; agreement to carry forward
Not practical suggestions	Tunnel through Queen Anne/Interbay			✓	
	Extensions to 65 th , 85 th , Northgate			✓	
	Multi-modal Salmon Bay bridge			✓	Minority opinion to carry forward
	Eliminate or add stations			✓	



Next steps

Community engagement and collaboration



Meeting dates subject to change.



soundtransit.org/wsblink ➔



Intentionally blank