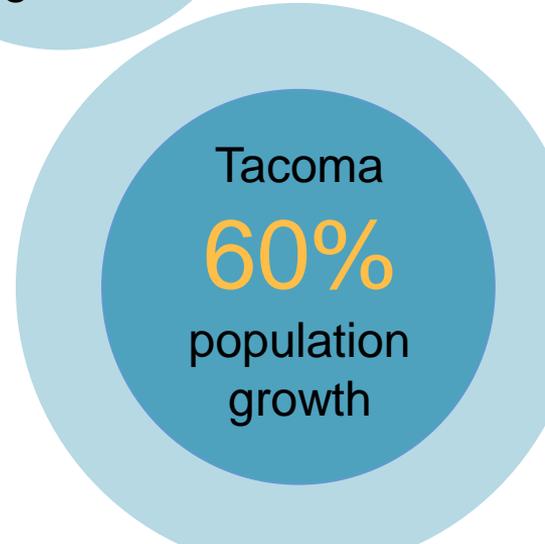
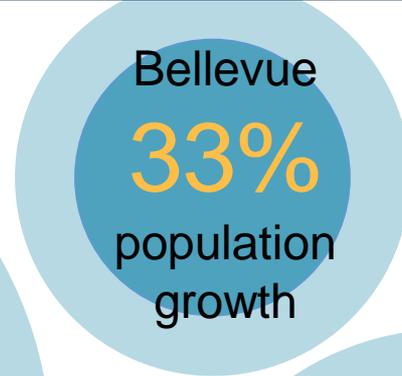
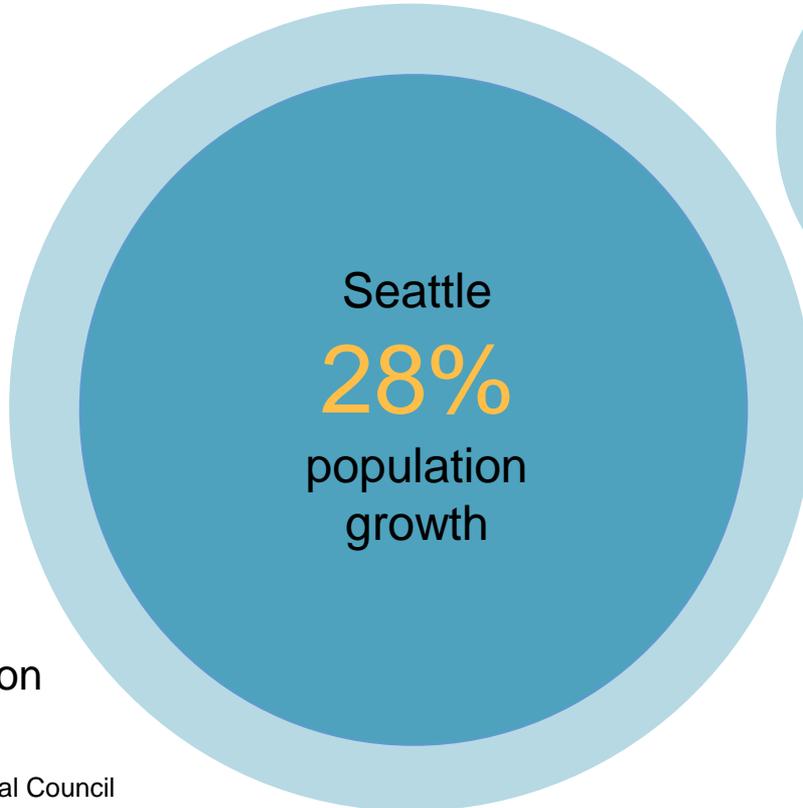
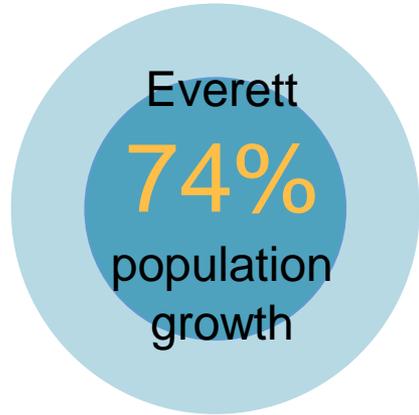


Why we live here



More people are calling this home



 Projected population
growth by 2040

Source: Puget Sound Regional Council

The cost of congestion

2011

48 hours

stuck in traffic



2035

66 hours

stuck in traffic



Sigh...



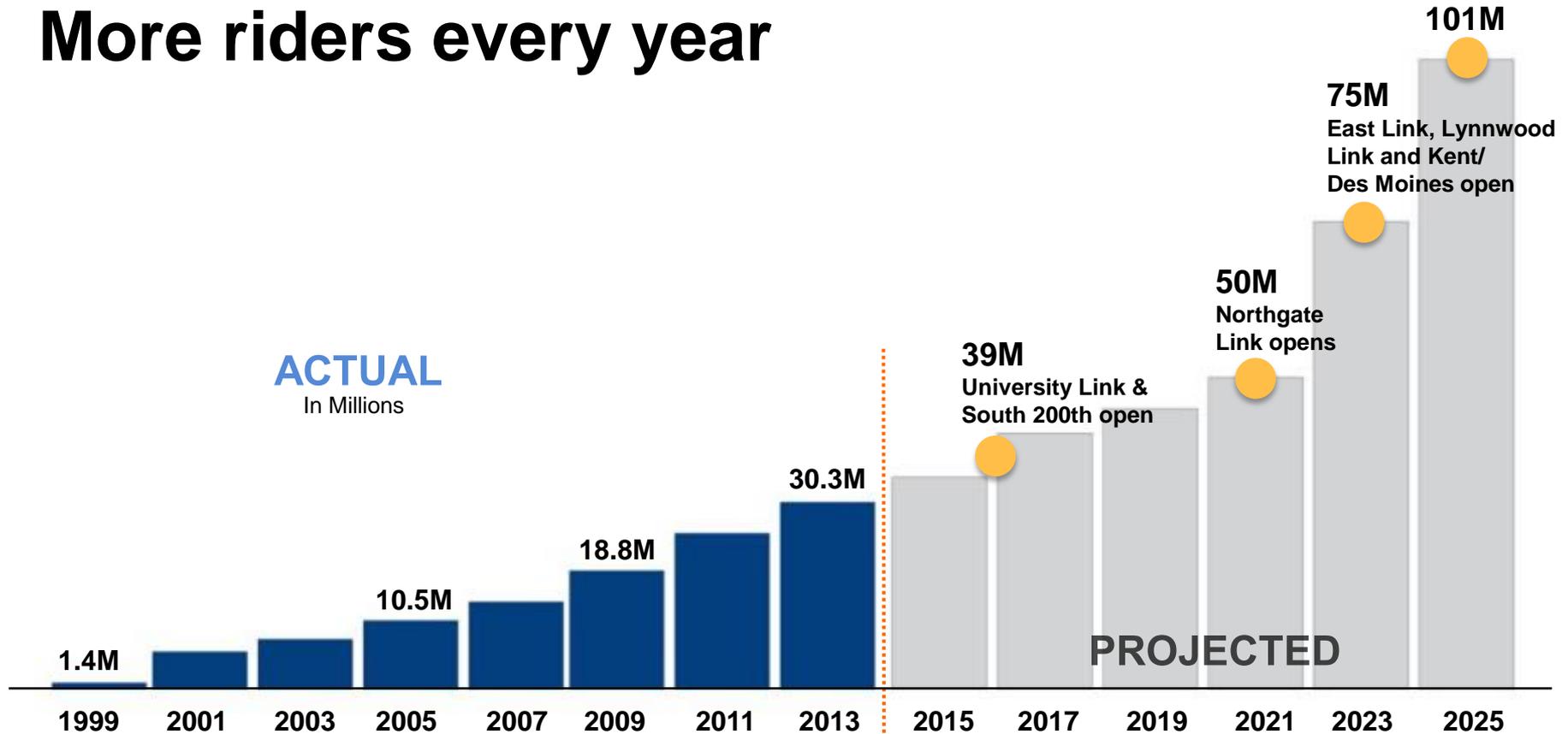
Building more roads?

Keeping current roads in good repair:

\$80 billion

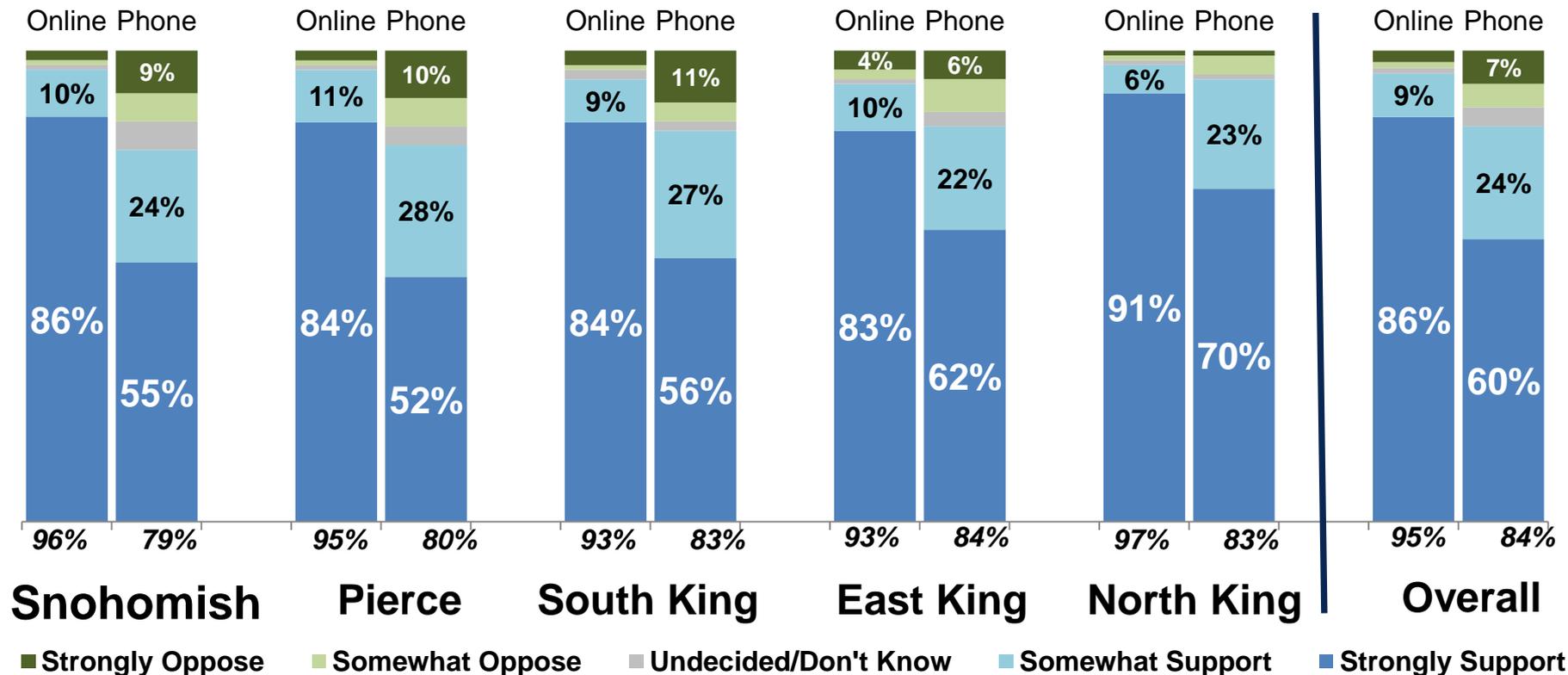
over next 30 years

More riders every year



Source: Sound Transit ridership reports, service implementation plan and financial plan.

Surveys: Broad support for expanding transit



Note: Spring 2014 phone survey was statistically-valid; Summer 2014 online survey was voluntary/self-select during Draft SEIS comment period



Developing Sound Transit's New System Plan: Core Priorities

Sound Transit Board
January 22, 2015

 **SOUNDTRANSIT**

System Plan (ST3) Timeline

2015

Develop System
Plan Core Priorities

Jan. – Feb. 2015



Develop Methodology
and Initial Evaluation
Measures

Feb. – Mar. 2015

Develop and Evaluate
Conceptual System
Expansion Scenarios

Apr. – May 2015

Develop Priority
Projects List

June – July 2015

Public Involvement

Detailed Testing and
Evaluation of Priority
Projects List

July – Dec. 2015

2016

Develop Draft
System Plan

Jan – Mar. 2016

Public Involvement

Final System
Plan Development

Apr. – May 2016

Adopt System Plan

June 2016

Possible Public Vote
on System Plan

Nov. 2016

Core Priorities for System Plan Development and Evaluation

- Core Priorities developed, in part, from public input received during the LRP update process:
 - Ridership
 - Completing the Link light rail Spine
 - Connecting the region's designated centers with HCT; Supporting TOD
 - Socio-economic equity
 - Integration with other transit operators/transportation systems
 - Multi-modal access

How Core Priorities Guide the ST3 Process in 2015

CORE PRIORITIES



Conceptual System Expansion **Scenarios**



Scenario Evaluation Measures Based on Core Priorities



Initial Project Evaluation Measures Based on Core Priorities and **Scenario** Evaluation



Development of Priority Projects List



Project Templates



Detailed **Project** Testing & Evaluation

System Planning Trade-offs

- Planning for the Core Priorities will present trade - offs for the Board to consider

Examples:

- Areas of socio-economic diversity may extend beyond areas of density
 - Maximizing HCT ridership will vary with the degree of multi-modal integration
-
- Core Priorities and Conceptual System Expansion Scenarios will establish framework for advancing Priority Projects

Ridership

Why is this a Core Priority?

- It's positively correlated to so many other benefits, such as:
 - Mode share
 - Energy consumption
 - Greenhouse gas reduction*
 - VMT reduction*
 - Cost-effectiveness of the transit investment
 - Transit/Land Use relationship
- Higher ridership implies better performance: **Speed, Reliability, Frequency & Capacity**

How will we measure this Core Priority?

- Transit mode share
- HCT Ridership

*2014 text amendments to the LRP

Completing the Light Rail Spine

Why is this a Core Priority?

- **Included in the Long-Range Plan as a priority for investment**
- **A shared, regional goal**

How we will measure this Core Priority?

- **Progress towards connecting:**
 - **Redmond,**
 - **North Everett, and**
 - **Tacoma Mall**

Connecting Designated Centers / TOD

Why is this a Core Priority?

- **Included in the Long-Range Plan update**
- **Connecting the central Puget Sound's designated centers is a regional goal***
- **Designated Regional Growth Centers not served by the Spine also should be supported***

How we will measure this Core Priority?

- **Percentage of designated centers served by HCT**
- **Population and employment in proximity to HCT stations**

*2014 text amendments to the LRP

Socio-economic equity

Why is this a Core Priority?

- **Included in the Long-Range Plan update, a regional goal**
- **Support economic development efforts***
- **Encourage creation of housing options***

How we will measure this Core Priority?

- **Percentage of minority and low-income populations in proximity to HCT stations***

*2014 text amendments to the LRP

Integrate the HCT System/Lower O&M Costs

Why is this a Core Priority?

- **Included in the Long-Range Plan update, a regional goal**

How we will measure this Core Priority?

- **Transit travel time**
- **Transit Coverage: Increase in locations accessible within half hour**
- **Efficiency dividend (service hours saved)**
- **O&M cost per trip/boarding/passenger mile**

Emphasis on Multimodal Access

Why is this a Core Priority?

- **Included in the Long-Range Plan update, a regional goal**
- **Fully Implements Sound Transit's Access Policy**

How we will measure this Core Priority?

- **Ridership**
- **Percentage of transit access by all modes***

Next Steps

- Confirm **Core Priorities**
 - Refine as needed throughout first-half of 2015
- Begin development of Conceptual System Expansion Scenarios, emphasizing Core Priorities
 - Present Conceptual System Expansion Scenarios for Board consideration
- Begin development of evaluation measures for the Conceptual System Expansion Scenarios
- More detailed schedule will be reviewed with Board in February

A low-angle, close-up photograph of a white and teal Sound Transit train. The train is moving from left to right, with its windows and doors visible. The teal color is a vibrant shade of blue-green. The background shows a station platform with a glass and metal roof structure.

Core Priorities for a New ST System Plan

Sound Transit Board
February 26, 2015

 **SOUNDTRANSIT**

Core Priorities for a New ST System

- Core Priorities and Related Measures:
 - Completing the Link light rail Spine
 - Miles of LRT included
 - Ridership
 - Daily HCT boardings
 - Connecting the region's designated centers with HCT; Supporting TOD
 - Percentage of designated centers served by HCT
 - Population/employment within ½-mile of HCT stations

Core Priorities for a New ST System

- Core Priorities and Related Measures:
 - Socio-economic equity
 - Minority and low-income populations within ½-mile of HCT stations
 - Integration with other transit operators/transportation systems
 - Reduction in transit travel time
 - Multi-modal access
 - Percentage of transit access, by all modes

How Core Priorities Guide the ST3 Process in 2015

CORE PRIORITIES



Conceptual System Expansion **Scenarios**



Scenario Evaluation Measures Based on Core Priorities



Initial Project Evaluation Measures Based on Core Priorities and **Scenario** Evaluation



Development of Priority Projects List



Project Templates



Detailed **Project** Testing & Evaluation

Next Steps

- Begin development of Conceptual System Expansion Scenarios, emphasizing Core Priorities
 - Present Conceptual System Expansion Scenarios for Board consideration
- Refine **Core Priorities** and related evaluation measures, as needed throughout first-half of 2015
- Begin development of evaluation measures for the Conceptual System Expansion Scenarios



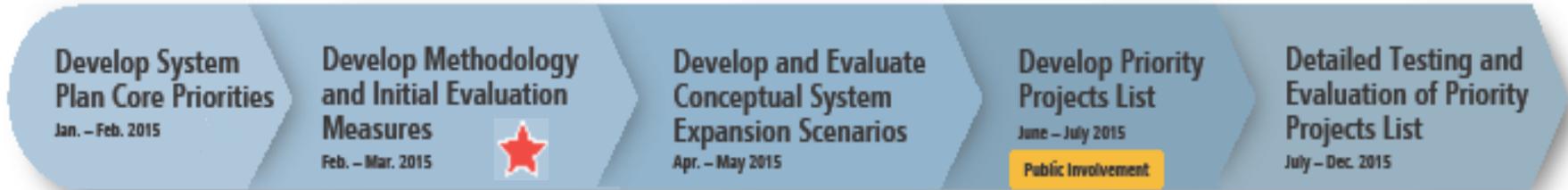
Sound Transit's New System Plan: Technical Methodologies and Conceptual System Expansion Scenarios

March 2015

 **SOUNDTRANSIT**

System Plan (ST3) Timeline

2015



2016



RCW 81.104 (2)c Places Requirements on ST's System Planning

“Analysis methods:

*The local transit agency shall develop reports describing the analysis and assumptions for the estimation of **capital costs, operating and maintenance costs, methods for travel forecasting, a financial plan and an evaluation methodology.**”*

Key Methodologies for System Plan Development

Capital Cost Estimating Methodology:

- Generate reasonable cost estimates for delivering proposed projects
- Include appropriate design allowances and contingencies
- Use Sound Transit experience in delivering similar types of projects

Operating and Maintenance Cost Estimating Methodology:

- Generate reasonable estimates of the annual cost of operating proposed transit services
- Driven by system characteristics and Sound Transit operating cost experience (or based on peer systems)

Key Methodologies for System Plan Development

Transit Ridership Forecasting Methodology:

- Generate reasonable estimates of transit ridership and of transit service characteristics
- Examines proposed future changes in land use and non-transit transportation conditions,
- Incremental changes in the transit level of service and user costs (e.g., fares)

Evaluation Methodology:

- Describes how core priorities will be used to develop conceptual scenarios, priority project lists, and development the overall system plan

Key Methodologies for System Plan Development

Financial Modeling Methodology:

- Detail sources and uses of funds within financial plan
- Describe methodology for forecasting key financial inputs (e.g., future tax revenues)
- Document key financial planning assumptions (e.g., assumed borrowing rate).

RCW 81.104.080 Requires Coordination with *Vision 2040*

*“Regional high capacity transportation plans shall be included in the **designated regional transportation planning organization's regional transportation plan** review and update process to facilitate development of a coordinated multimodal transportation system and to meet federal funding requirements...”*

- PSRC administrative procedures require that they conduct a Benefit-Cost Analysis for transit projects with a cost greater than \$100 million.

Key Methodologies for System Plan Development

Benefit-Cost Analysis Methodology:

Comparison of quantifiable benefits and costs that can reasonably be expected to occur from the implementation of a system of HCT rail investments.

Benefits:

- Transit user time savings and mobility benefits for non-transit users
- Auto operating and ownership cost savings; Accident reduction and safety benefit; Parking cost savings; Environmental benefits

Costs:

- Capital expenditures; Annual operating and maintenance costs; Periodic rehabilitation and replacement costs.

Core Priorities for System Plan Development and Evaluation

- **Completing the Link light rail Spine**
- Ridership
- Connecting the region's designated centers with HCT
- Promoting transit friendly land use and supporting TOD
- Advancing “Logical Next Steps” projects beyond the Spine; within financial capacity
- Socio-economic equity
- Integration with other transit operators/transportation systems
- Multi-modal access

System Planning Process in 2015

CORE PRIORITIES



→ **CONCEPTUAL SYSTEM EXPANSION SCENARIOS** ←



→ **Scenario Evaluation Measures Based on Core Priorities** ←



Initial Project Evaluation Measures Based on Core Priorities and Scenario Evaluation



Development of Priority Projects List



Project Templates



Detailed Project Testing & Evaluation

RCW 81.104.100 (2)b Requires HCT Options

“A do-nothing option and a low capital option that maximizes the current system shall be developed. Several higher capital options that consider a range of capital expenditures for several candidate technologies shall be developed.”

Conceptual Scenarios: Technologies (Modes)

Link light rail



Bus Rapid Transit



Rapid Streetcar



Conceptual System Expansion Scenarios

Trade-offs:

Length

Fewer Miles

More Miles

Alignment

Less Developed Areas

More Developed Areas

Profile

At-grade, Shared Lanes

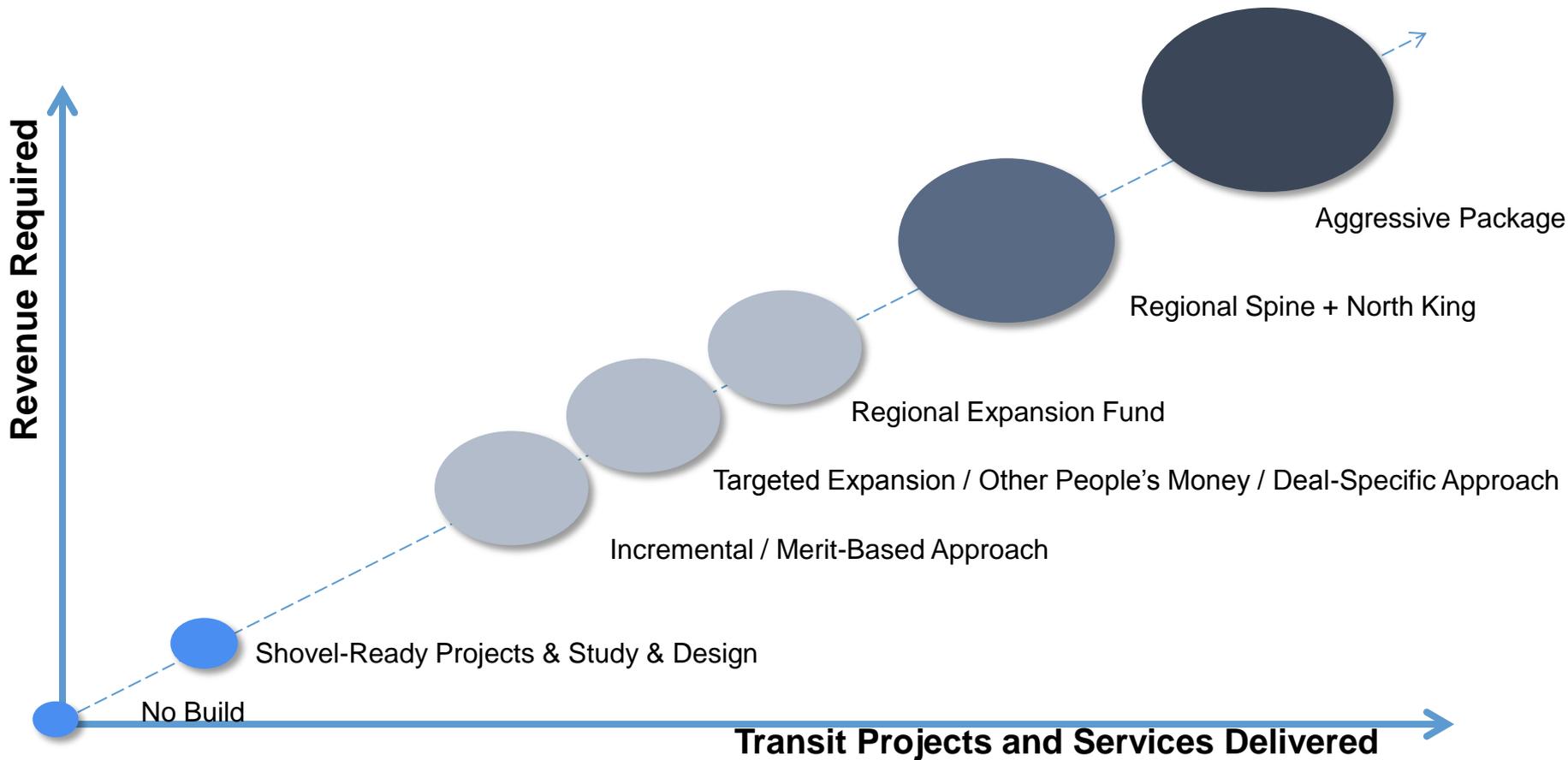
Exclusive (Aerial/Tunnel)

Supporting Projects

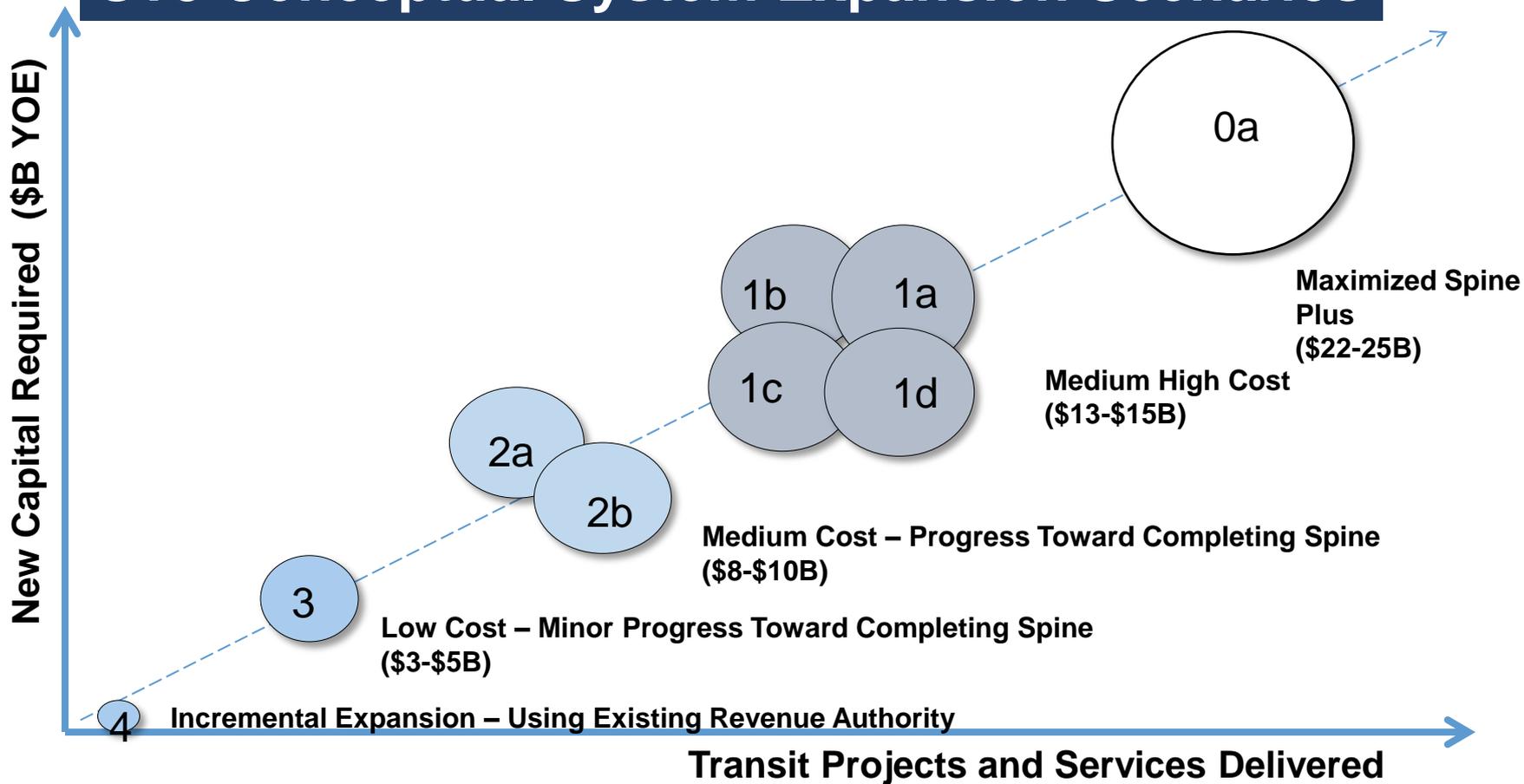
Fewer

More

Early ST3 Scope and Revenue Discussions



ST3 Conceptual System Expansion Scenarios



Conceptual System Expansion Scenarios

Summary

- 
- Maximized Spine Plus
 - Maximized Spine
 - More Connections, Most of Spine
 - More Connections, Less Spine
 - Modest Spine Extension with focused Investments in Denser Areas
 - Medium Cost --- Progress toward Completing Spine
 - Medium Cost --- Some Progress toward Completing Spine
 - Low Cost --- Minor Progress toward Completing Spine
 - Incremental Expansion --- Using Existing Revenue Authority

Upcoming Activities

- Continue development of the Conceptual System Expansion Scenarios
- Begin analysis of Conceptual Scenarios
- Prepare for presenting the Key Methodologies to the State's Expert Review Panel
- Priority Project List
- Identify Board Workshop opportunities

A low-angle, close-up photograph of a Sound Transit train. The train is white with a teal and blue stripe. The windows are dark, reflecting the sky. The train is moving, as indicated by the motion blur in the background. The text "Draft Conceptual System Expansion Scenarios" is overlaid in white on a dark grey horizontal band across the middle of the image.

Draft Conceptual System Expansion Scenarios

April 2015

The Sound Transit logo, consisting of a stylized white 'S' and 'T' symbol followed by the words "SOUNDTRANSIT" in a bold, white, sans-serif font. The logo is set against a blue background with a teal wave-like graphic above it.

SOUNDTRANSIT

System Plan (ST3) Timeline

2015

**Develop System
Plan Core Priorities**

Jan. – Feb. 2015

**Develop Methodology
and Initial Evaluation
Measures**

Feb. – Mar. 2015

**Develop and Evaluate
Conceptual System
Expansion Scenarios**

Apr. – May 2015



**Develop Priority
Projects List**

June – July 2015

Public Involvement

**Detailed Testing and
Evaluation of Priority
Projects List**

July – Dec. 2015

2016

**Develop Draft
System Plan**

Jan – Mar. 2016

Public Involvement

**Final System
Plan Development**

Apr. – May 2016

Adopt System Plan

June 2016

**Possible Public Vote
on System Plan**

Nov. 2016

Core Priorities For ST3 System Plan Development

**COMPLETING THE LINK
LIGHT RAIL SPINE**



RIDERSHIP



**CONNECTING THE REGION'S
DESIGNATED CENTERS
WITH HCT**



**SOCIO-ECONOMIC
EQUITY**



**INTEGRATION WITH OTHER
TRANSIT OPERATORS/
TRANSPORTATION SYSTEMS**



MULTI-MODAL ACCESS



**PROMOTING TRANSIT
SUPPORTIVE LAND USE
AND TOD**



**ADVANCING "LOGICAL
NEXT STEPS" PROJECTS
BEYOND THE SPINE; WITHIN
FINANCIAL CAPACITY**



Purpose of the Conceptual System Expansion Scenarios

- High level overview of possible corridor investments from HCT studies
- State Law requires examination of small and large capital options
- Tool to analyze trade-offs
- **NOT** a specific System Plan
- Doesn't include all possible projects that could be included in a system plan
- Board will not take action on scenarios (for discussion purposes only)

Conceptual System Expansion Scenarios

Summary

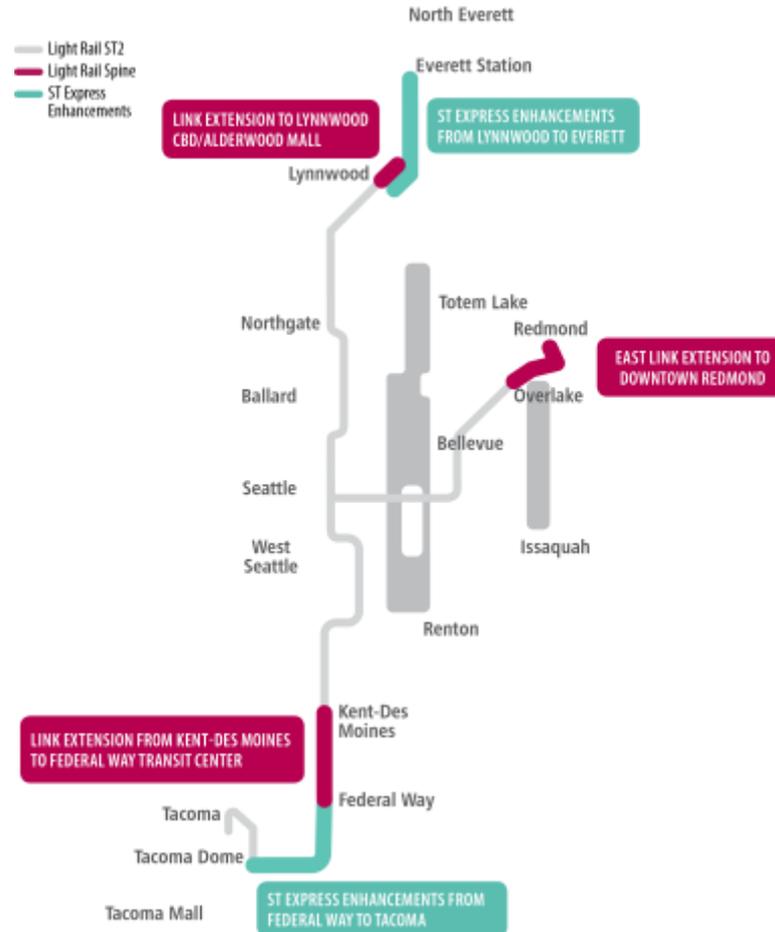
- 
- Incremental Expansion - Using Existing Revenue Authority
 - 1: Low Cost - Minor Progress Toward Completing Spine
 - 2a: Medium Cost - Some Progress Toward Completing Spine, Modest Additional Corridors
 - 2b: Medium Cost - Progress Toward Completing Spine, No Additional Corridors
 - 3a: Modest Spine Extension, Emphasis on Additional Corridors
 - 3b: Less Spine, More Additional Corridors
 - 3c: Most of Spine, Some Additional Corridors
 - 3d: Maximized Spine, Limited Additional Corridors
 - 4: Maximized Spine, Additional Corridor Investments

Conceptual Scenario

1:

Low Cost - Minor Progress Toward Completing Spine

- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine

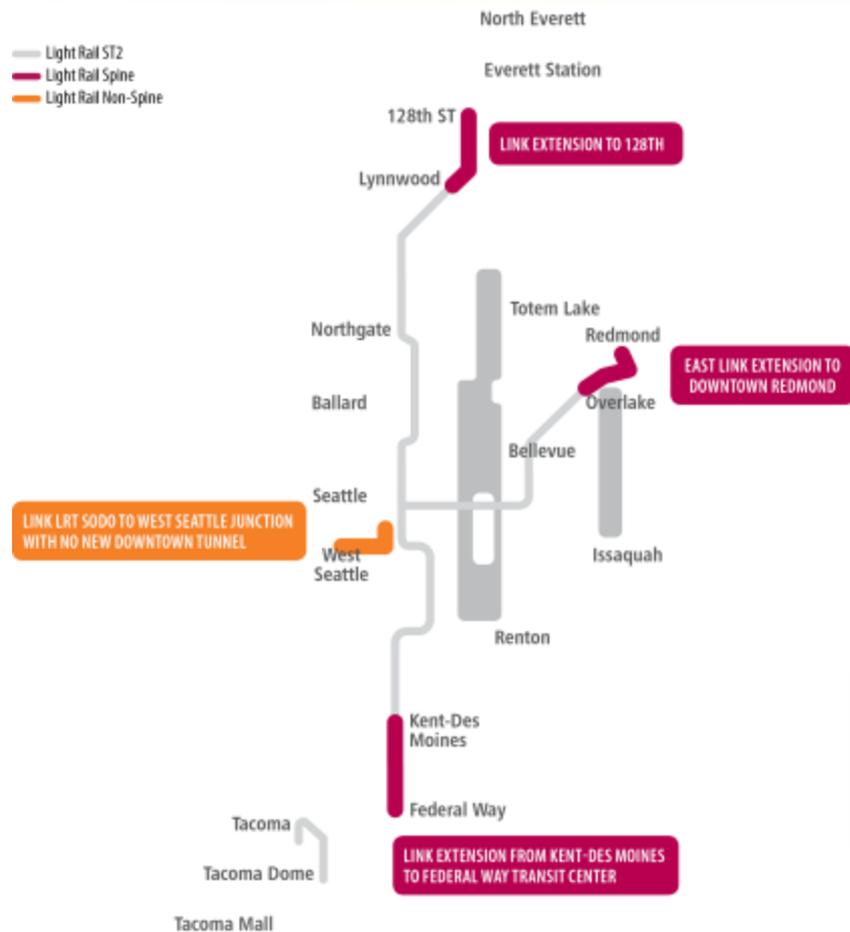


**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Conceptual Scenario 2a:

Medium Cost - Some Progress Toward Completing Spine, Modest Additional Corridors

- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine

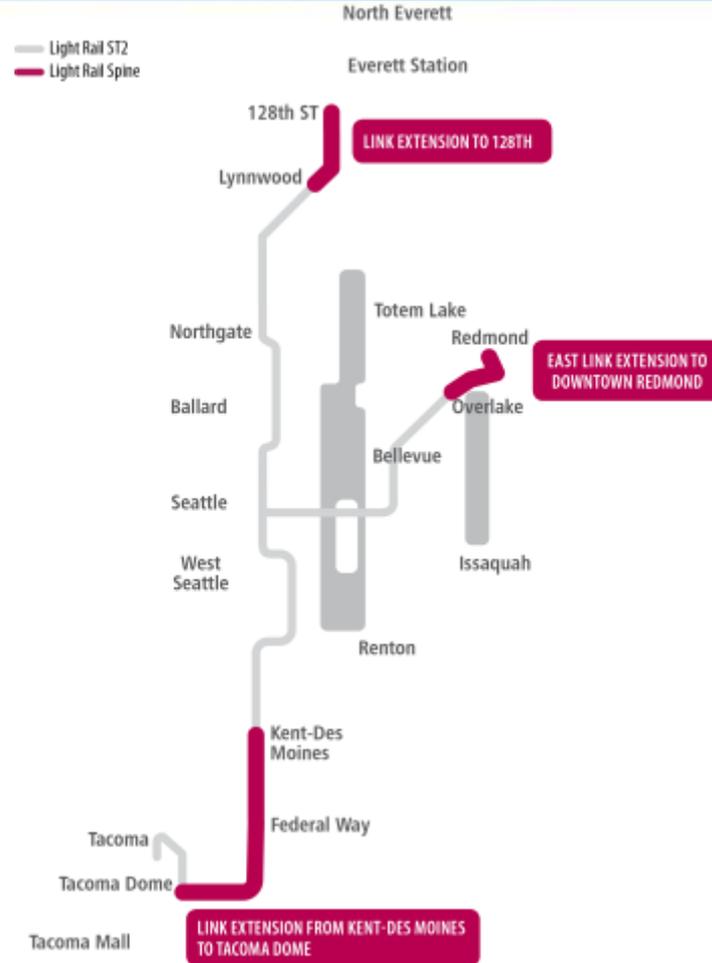


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 Conceptual Only
 For Analytical
 and Discussion
 Purposes

Conceptual Scenario 2b:

Medium Cost - Progress Toward Completing Spine, No Additional Corridors

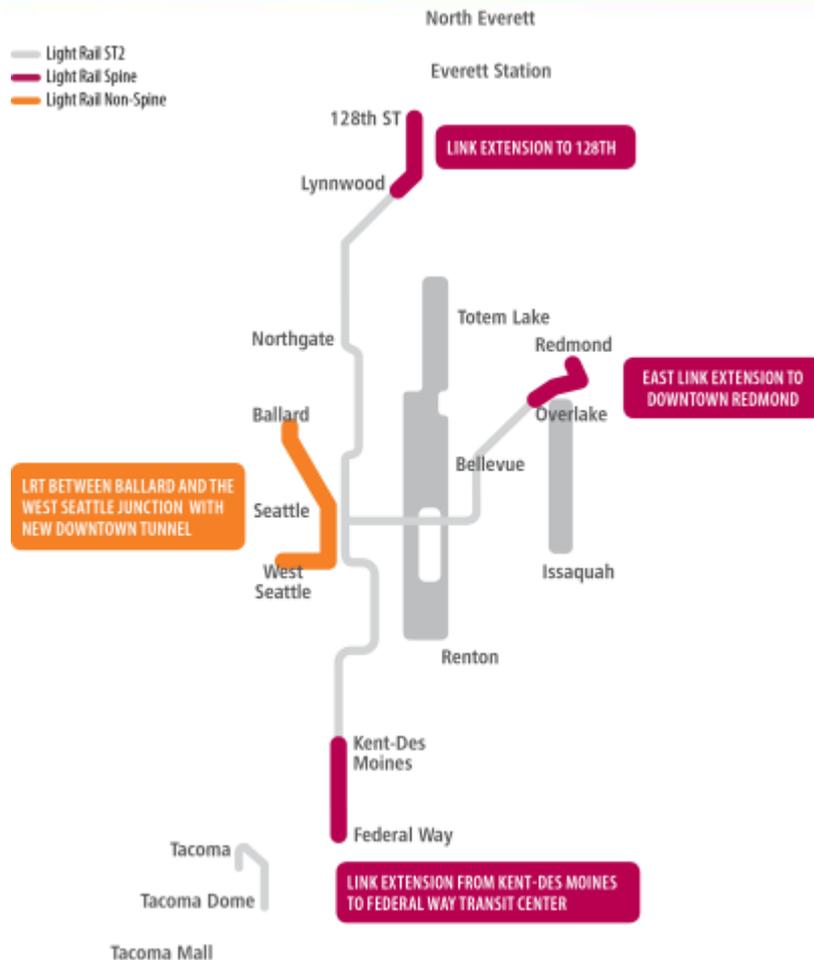
- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine



**DRAFT:
Conceptual Only
For Analytical
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Purposes**

Conceptual Scenario 3a: Modest Spine Extension, Emphasis on Additional Corridors

- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine



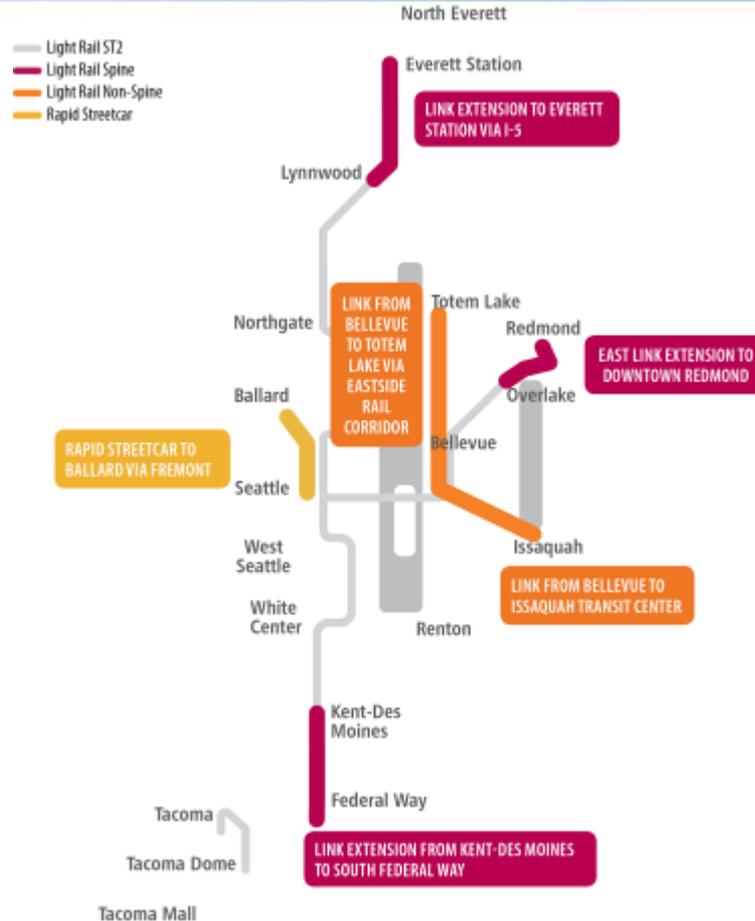
**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Conceptual Scenario

3b:

Less Spine, More Additional Corridors

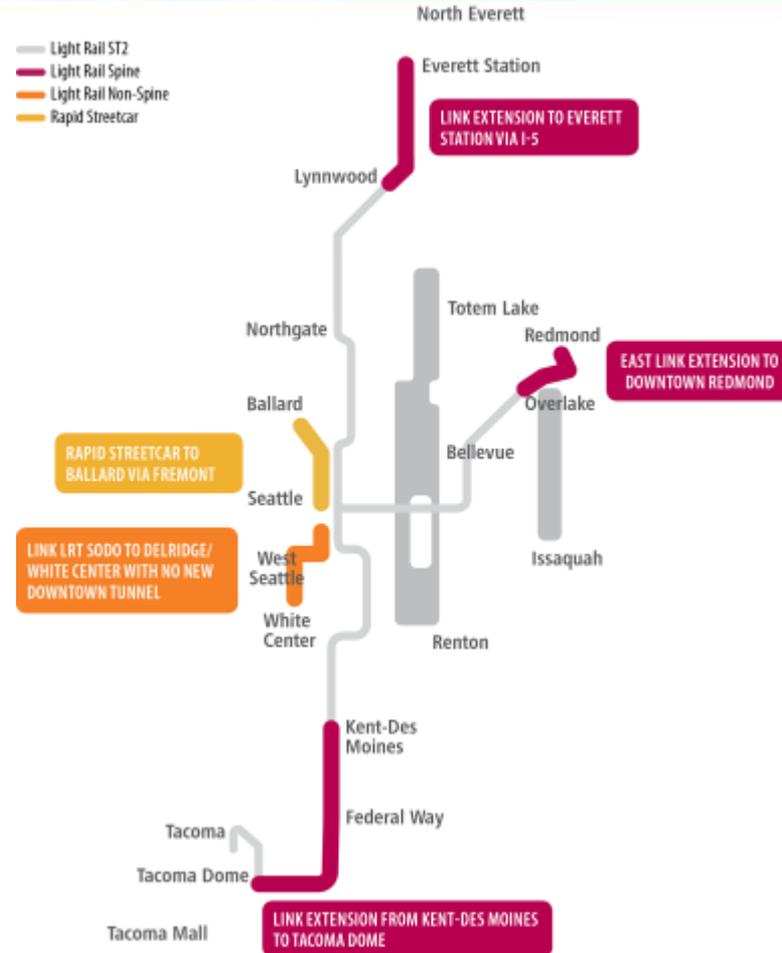
- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine



**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Conceptual Scenario 3c: Most of Spine, Some Additional Corridors

- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine

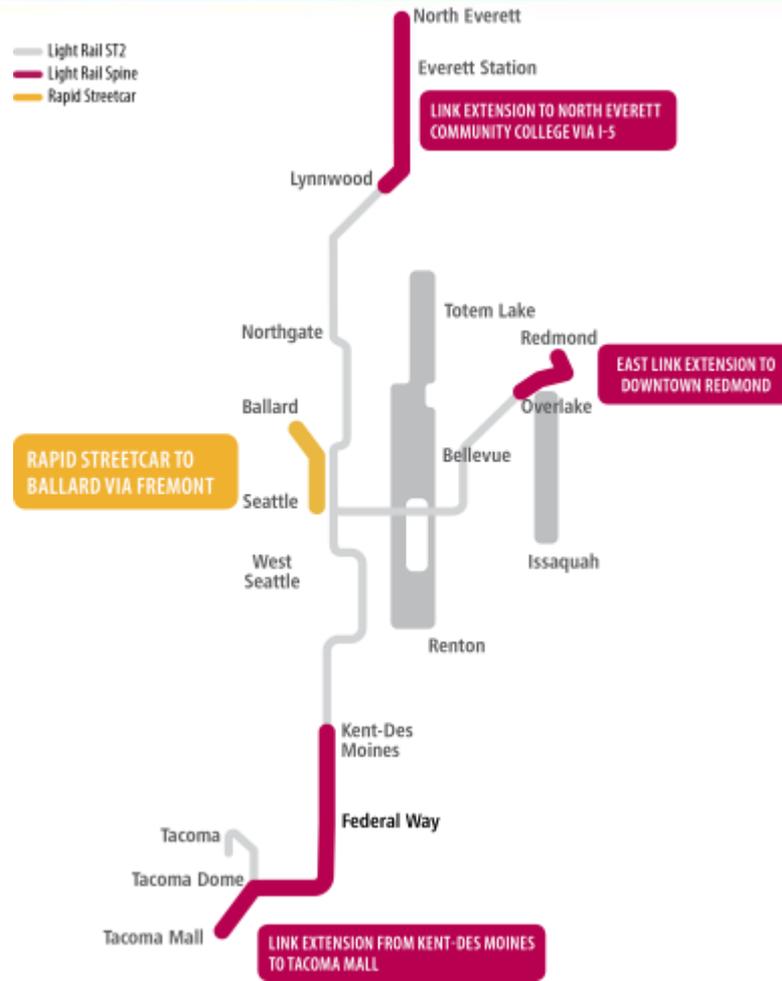


**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Conceptual Scenario

3d: Maximized Spine, Limited Additional Corridors

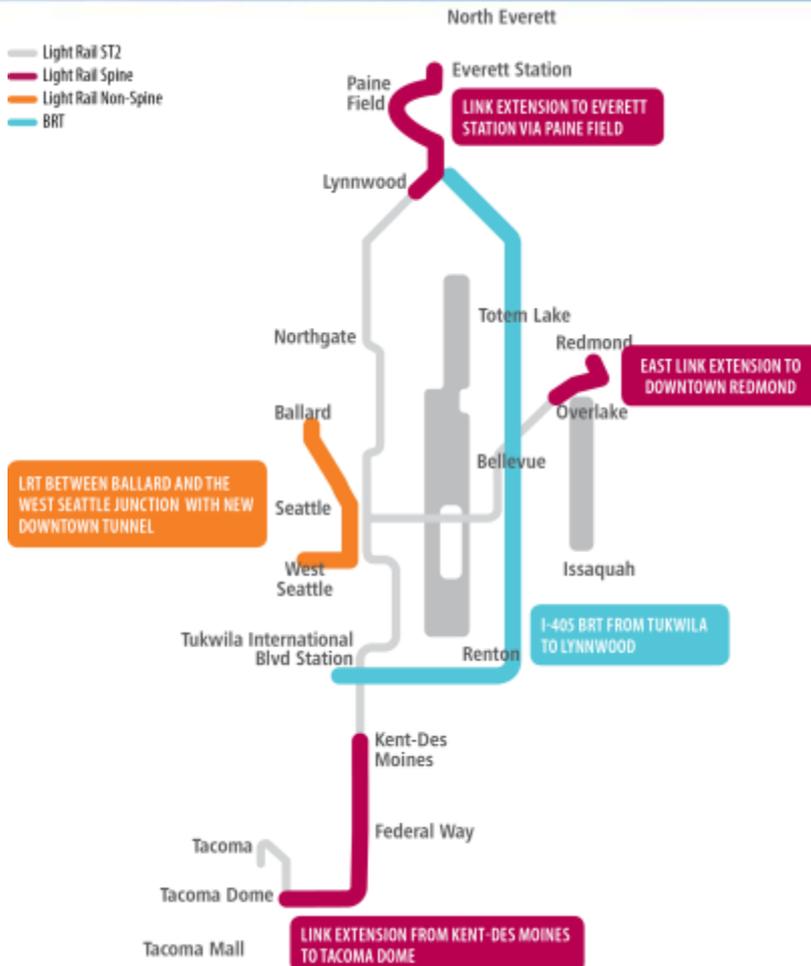
- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine



**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Conceptual Scenario 4: Maximized Spine, Additional Corridor Investments

- Does not consider sub-area allocation
- Includes allowance for:
 - Representative System Wide Improvements
 - Existing System Enhancements
 - ST2 Realigned Projects
 - Planning/Engineering to Advance “Next Logical Steps” beyond the Spine



**DRAFT:
Conceptual Only
For Analytical
and Discussion
Purposes**

Evaluation Measures for Conceptual System Expansion Scenarios



COMPLETING THE LINK LIGHT RAIL SPINE

- Miles of LRT – Spine only
- Miles of LRT – Total system



RIDERSHIP

- Daily HCT boardings (2040)
- Percentage of transit passenger miles on HCT (2040)



CONNECTING THE REGION'S DESIGNATED CENTERS WITH HCT

- Number of designated centers served by HCT



PROMOTING TRANSIT SUPPORTIVE LAND USE AND TOD

- Population/employment within 1 mile of HCT station areas (2040)



SOCIO-ECONOMIC EQUITY

- Minority and low-income populations within 1 mile of HCT station areas (2014)



INTEGRATION WITH OTHER TRANSIT OPERATORS/TRANSPORTATION SYSTEM

- Opportunity for integration



MULTI-MODAL ACCESS

- Percentage of peak period transit access to HCT, by walk, bus, and auto access modes

- May 7th Executive Committee:
 - Discuss Process for draft Project Priority List
- May 28th Board Meeting :
 - Present Conceptual System Expansion Performance Results
 - Draft Project Priority List
- June-July:
 - Outreach
- August:
 - Finalize Project Priority List
- Fall:
 - Evaluate Project Priority List and Develop Templates

The image features a dark grey horizontal banner across the center. On the left side of the banner is the Sound Transit logo, which consists of a white square containing a stylized 'S' and 'T' symbol. To the right of the logo, the words 'SOUNDTRANSIT' are written in a bold, white, sans-serif font. Below 'SOUNDTRANSIT', the slogan 'RIDE THE WAVE' is written in a smaller, white, sans-serif font. The background of the entire image is a close-up of a transit vehicle with a white upper section and a blue lower section, separated by a wavy teal and blue graphic. The vehicle has several dark windows and some small white signs.

SOUNDTRANSIT
RIDE THE WAVE