



West Seattle and Ballard

Link Extensions

Summary of Previous
Studies and Plans

February 2018

Summary

This memorandum summarizes the findings of prior transportation studies that are relevant to the West Seattle and Ballard LRT Extension (WSBLE) Project, including those prepared by Sound Transit, the city of Seattle, King County, and Puget Sound Regional Council (PSRC). This memorandum primarily identifies findings related to transportation conditions within the study area, past study recommendations and how they were incorporated into the representative project, and policy directives of relevance in local and regional planning documents.

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Acronyms and Abbreviations

BNSF	Burlington Northern Santa Fe
DPD	Department of Planning and Development
DSTT	Downtown Seattle Transit Tunnel
EIS	Environmental Impact Statement
ETC	Elevated Transportation Company
FY	Fiscal Year
HALA	Housing Affordability and Livability Agenda
HCT	High Capacity Transit
M/IC	Manufacturing and Industrial Center
MTS	Metropolitan Transportation System
RTLTP	Regional Transit Long-Range Plan
PSRC	Puget Sound Regional Council
SIG	Seattle International Gateway
SODO	South of Downtown Neighborhood
SMART	Sustainable, Multimodal, Accessible, Reliable, and Technology Corridors
ST2	Sound Transit 2 System Plan
ST3	Sound Transit 3 System Plan
TOD	Transit-Oriented Development
TIP	Transportation Improvement Program
TMP	City of Seattle Transit Master Plan
WSBLE	West Seattle and Ballard Link Extensions

1 INTRODUCTION

1.1 Overview

Sound Transit is advancing the West Seattle and Ballard Link Extensions (WSBLE) Project through the Alternatives Development Phase. During Alternatives Development, Sound Transit will assess the representative project included in the Sound Transit 3 Plan (ST3) and further refine the specific route, station locations and other project elements based on additional public engagement and technical analysis. The representative project itself is the result of extensive, years-long planning and public involvement work, including high-capacity transit studies, the process to update the agency's long-range plan, and the work that developed the ST3 Plan approved by voters in 2016. Sound Transit will engage the public and agencies in an intensive external engagement process that will lead to the Sound Transit Board identifying a Preferred Alternative, as well as other alternatives to evaluate in an Environmental Impact Statement (EIS).

The WSBLE Project would provide fast, reliable light rail connections to dense residential and job centers throughout the region and add a new downtown Seattle light rail tunnel to provide efficient operating capacity for the entire regional system. The extension to West Seattle would operate on a 4.7-mile elevated guideway from downtown Seattle to West Seattle's Alaska Junction neighborhood and include a new rail-only fixed span bridge across the Duwamish River. The West Seattle extension would serve one at-grade station in the stadium area and four elevated stations in the SODO, Delridge, Avalon and Alaska Junction areas.

The Ballard extension would operate 7.1 miles from downtown Seattle to Ballard's Market Street area and include a new 3.3-mile rail-only tunnel from the International District/Chinatown to South Lake Union and Seattle Center/Uptown. The representative project includes an elevated guideway along 15th Avenue West and Elliott Avenue West and a rail-only movable bridge over Salmon Bay. The Ballard extension would serve three elevated stations in Ballard, Interbay and near Smith Cove, and six tunnel stations at Seattle Center, South Lake Union, Denny, Westlake, midtown and International District/Chinatown areas.

A map of both extensions is shown on **Figure 1-1** (West Seattle and Ballard Link Extensions).

1.2 Purpose of report

The primary objective of this report is to identify aspects of prior work that are of interest to the WSBLE Project, including findings related to transportation conditions within the study area, past study recommendations and how they were incorporated into the representative project, and policy directives of relevance in local and regional planning documents.



Figure 1-1 West Seattle and Ballard Link Extensions

2 CITY AND REGIONAL PLANS AND STUDIES

Several transportation plans and studies since the late 1960s and early 1970s, beginning with the *Forward Thrust Plan*, have included components of the WSBLE Project. Major investments in the regional transit system did not take place until the mid-1990s with the passage of Sound Move, and later the Sound Transit 2 (ST2) Plan of 2008. Sound Move, adopted by the voters of the Central Puget Sound Regional Transit District (Sound Transit) in 1996, identified West Seattle, Fauntleroy, Burien, and Renton as candidates for regional express bus service. Sound Transit’s updated *Regional Transit Long-Range Plan* (2005) (RTLTP) outlined the goals and objectives for HCT. Since its original adoption, the RTLTP has included an HCT linkage between Ballard and Downtown Seattle, and the plan has also recommended the West Seattle-to-Downtown Seattle route for express bus service along with the monorail that was proposed by the Elevated Transportation Company (or Seattle Monorail Project) at that time.

The ST2 Plan, adopted by the voters in 2008, provided additional funding and expanded the original Sound Move transportation package. The plan designated the downtown Seattle-West Seattle-Burien and Burien-Renton corridors as candidates for specific HCT studies. The ST2 Plan served as the fiscally-constrained plan specifying capital projects and the investment strategy to further implementation of Sound Transit’s vision for HCT established in the 2005 *Regional Transit Long-Range Plan*.

In 2014, Sound Transit completed the *Ballard to Downtown Seattle Transit Expansion Study* (jointly funded by Sound Transit and the city of Seattle) and the *South King County Corridor – High Capacity Transit Corridor Study* that helped inform the identification of the Representative Project later advanced as part of the ST3 plan. These studies informed the selection of the WSBLE Project among several extensions ready for planning, design, and construction as part of the ST3 Plan. In 2016, the city of Seattle published an update to the city’s Transit Master Plan that included the WSBLE Project, and the project was subsequently carried forward as part of the ST3 Plan. Voters approved funding for the ST3 plan later that fall.

This review focuses on the pertinent policies, plans, and studies that influence the WSBLE Project, as listed in **Table 2-1** (Summary of previous studies).

Table 2-1 Summary of previous studies

Planning Document	Lead Agency	Date
<i>City of Seattle Comprehensive Plan</i>	City of Seattle	2017
<i>City of Seattle Transit Master Plan</i>	City of Seattle	2016
<i>Sound Transit 3 System Plan</i>	Sound Transit	2016
<i>Regional Transit Long-Range Plan</i>	Sound Transit	2014
<i>Transportation 2040</i>	PSRC	2014
<i>Transportation Improvement Program</i>	PSRC	2014
<i>King County Metro Strategic Plan for Public Transportation (2011-2021)</i>	King County Metro	2015
<i>Transit Expansion Study – Ballard to Downtown Seattle</i>	Sound Transit and City of Seattle	2014
<i>South King County Corridor – High Capacity Transit Corridor Study</i>	Sound Transit	2014

The following sections provide the legislative and planning context for the ST3 Representative Project for the WSBLE Project. **Appendix A** (Index of Previous Studies) references additional reports, studies and background information for the WSBLE Project.

2.1 Policies and legislative actions

2.1.1 State of Washington Growth Management Act

The State of Washington Growth Management Act (GMA) requires multi-county planning policies to provide a common framework for coordinated local, county, and regional planning. Local governments within the Sound Transit district coordinate within the regional framework of the PSRC for policy and plan review to coordinate actions and satisfy GMA requirements. The PSRC policies provide a framework for local land use plan and policy consistency with the regional plan and GMA to concentrate growth to urban areas, reduce sprawl, and encourage efficient transportation systems.

2.1.2 Regional Growth Strategy

The PSRC regional growth strategy policy documents include *VISION 2040, Transportation 2040*, and the *Growing Transit Communities Strategy* (PSRC, 2009, 2010, 2013). *VISION 2040* envisions a majority of regional growth (1.7 million new people and 1.2 million new jobs forecasted in the Puget Sound area by 2040) occurring in compact growth patterns in designated regional growth centers, five of which are within the study area: Seattle Central Business District, South Lake Union, Uptown, Ballard-Interbay Manufacturing and Industrial Center and Duwamish Manufacturing and Industrial Center. Relevant goals developed by the PSRC include promoting transit-oriented development (TOD) and connecting regional growth centers with HCT corridors. These strategies are considered the action plan for addressing growth in the central Puget Sound region.

2.2 Regional plans and studies

2.2.1 Sound Transit Regional Transit Long-Range Plan (2014)

The *Regional Transit Long-Range Plan* (RTLTP) is a summary-level document that outlines Sound Transit's goals, policies, and strategies to guide the development of the region's high-capacity transit system over the next 30 years. Periodically updated to reflect the progress made toward the achievement of the plan's specified goals, the long-range plan represents a broad regional framework for long-term investments. The RTLTP map depicts Sound Transit's envisioned network of services when the regional transit system is complete, and adds the West Seattle to Downtown HCT corridor. The RTLTP serves as the long-range vision for the regional high-capacity transit network, while the ST3 System Plan is the fiscally constrained plan that voters must approve prior to initiating work on capital projects.

2.2.2 ST3 System Plan (2016)

Adopted by the Sound Transit Board in June 2016, and approved by voters in November 2016, the ST3 Plan outlines the next phase of HCT improvements for central Puget Sound, building on

the previous Sound Transit investment plans, Sound Move and ST2. With responsibility for designing, building, and operating the regional HCT system, Sound Transit developed the ST3 System Plan in accordance with the general goals for transit and regional mobility outlined in the PSRC's *Transportation 2040* plan.

As part of the plan's update from ST2, "Sound Transit 3 adds two light-rail extensions in Seattle. The first extends light rail from downtown Seattle to West Seattle with stations serving the sports stadiums, SODO, Delridge, Avalon and Alaska Junction. In addition, light rail extends to Ballard with a new subway through downtown Seattle and South Lake Union with stations serving International District/Chinatown, Midtown, Westlake, Denny, South Lake Union, Seattle Center, Smith Cove, Interbay and Ballard." The ST3 Plan also shows the WSBLE Project in the context of the combined regional rail access plan, shown on **Figure 2-1** (Regional Rail Access Plan). The ST3 Plan Map is provided on **Figure 2-2** (ST3 System Plan).

2.2.3 Puget Sound Regional Council Transportation 2040 (2014)

The PSRC is the Metropolitan Planning Organization (MPO) for the greater Seattle metropolitan region and publishes and monitors the implementation of the regional growth strategy policy documents for the coordinated delivery of capital improvement projects and development patterns. These documents include *VISION 2040*, *Transportation 2040*, and the Growing Transit Communities Strategy (PSRC, 2009, 2010, 2013). Relevant goals developed by the PSRC include promoting TOD and connecting regional growth centers with HCT corridors. These strategies are considered the action plan for addressing growth in the central Puget Sound region.

As written, "*Transportation 2040* is the functional transportation plan that implements *VISION 2040*, the long range environmental, growth management, economic development, and transportation strategy for the central Puget Sound Region." *VISION 2040* directs that the majority of regional growth (1.7 million new people and 1.2 million new jobs forecasted in the Puget Sound area by 2040) occur in compact growth patterns in designated regional growth centers, five of which are within the WSBLE Project study area: Ballard-Interbay Manufacturing and Industrial Center, downtown Seattle, Uptown, South Lake Union and Duwamish Manufacturing and Industrial Center. Updated in 2014, the plan is updated periodically to reflect completed projects or new projects identified in the plans and capital programs of other local and regional agencies, such as the WSBLE Project. The plan does not identify the WSBLE Project specifically; this project, along with other projects specified in the *ST3 System Plan*, is likely to be included in the update underway (2018).

Transportation 2040 supports *VISION 2040's Regional Growth Strategy*, intended to achieve the following:

- Enhance the region's existing communities
- Reduce incompatible development in rural areas
- Preserve the natural environment
- Provide a wider variety of affordable housing choices
- Better connect all people with jobs services, and recreational opportunities

SOUND TRANSIT 3

Combined Regional Rail Access

The reach of the regional transit investments made in Sound Transit 3 will be much greater than just the immediate vicinity of rail stations and transit centers.

The combined regional rail and BRT access map shows the access to the regional light rail and commuter rail systems when all ST3 improvements are in service. It depicts the geographic coverage of ¾-mile walk access and 2½-mile park-and-ride access to the rail stations, and the reach of existing local bus services (including average ¼-mile walk distance to the bus) that would allow access to the rail system with one transfer.

Approximately 84 percent of Sound Transit District residents and 93 percent of district employees would have convenient access to the region’s high-reliability transit system in 2040.

LEGEND

- Link station/alignment
- △ Sounder station/alignment
- Bus Rapid Transit
- Rail and BRT station access (2.5 miles*)
- Bus route access (.25 miles)

*0.75 miles (15 minute walking distance) for stations without parking.



Figure 2-1 ST3 Regional Rail Access Plan



Figure 2-2 ST3 System Plan

The plan discusses the adopted strategy for the creation of urban centers throughout the region. These centers include compact, pedestrian-oriented development with a mix of commercial, civic, entertainment, and residential uses. The centers concept is intended to capitalize on existing and future strategic places anticipated to receive a substantial proportion of future population and employment growth when compared to the rest of the metropolitan region. The centers concept is subdivided into three center typologies including Regional Growth Centers (commercial/residential), Manufacturing and Industrial Centers (MIC - manufacturing/industry), and Subregional Centers (suburban municipal centers).

The *Transportation 2040 Plan* further emphasizes the land use-transportation linkage through its discussion of the Regional Economic Strategy, the economic functional plan of *VISION 2040*, and the importance of direct and expedient linkages between urban centers. Coupled with the Regional Economic Strategy, the plan promotes the notion of SMART corridors (Sustainable, Multimodal, Accessible, Reliable, and Technology) identified as candidate corridors for additional transportation investments to increase connections between urban centers. Among the candidate corridors is 15th Avenue Northwest, identified during preliminary planning for the Ballard Extension and as part of the representative project for ST3, linking Interbay/Ballard with Uptown/Queen Anne and downtown Seattle. Similarly, the SMART corridor concept is extended south of downtown Seattle following SR 99 through the Duwamish/SODO areas, and extending over the West Seattle Bridge into West Seattle.

2.2.4 Regional Transportation Improvement Program (Fiscal Year 2017 to 2020)

Accompanying the *Transportation 2040 Plan* is the Regional Transportation Improvement Program (TIP), a reflection of the implementation of the investments in *Transportation 2040*. The TIP lists all federally funded projects and regionally significant, non-federally funded projects programmed for implementation in the next 5 years. Regionally significant projects must be explicitly listed in *Transportation 2040* and are subject to further review before they can proceed to implementation. Regional significance is currently defined as a major capacity investment on the Metropolitan Transportation System (MTS), and applies to all modes including public transportation projects.

Table 2-2 (Programmed transportation improvement projects, FY 2017 to 2020) identifies programmed transportation improvement projects contained in the Fiscal Year (FY) 2017 to 2020 TIP. The WSBLE Project is included in the TIP, but funding is not committed.

Table 2-2 Programmed transportation improvement projects, FY 2017 to 2020

Project	Sponsor	Description	Cost (\$Millions)	Funded	Completion
West Seattle to Downtown LRT	Sound Transit	New light rail line between downtown and West Seattle	\$1,765.2	No	2030
Downtown Seattle LRT Tunnel	Sound Transit	Construction of an LRT-only tunnel	\$2,020.1	No	2035
Ballard Link Extension	Sound Transit	New light rail line between downtown and Ballard	\$2,940.1	No	2035
South Lander St Grade Separation	City of Seattle	Grade separate roadway and BNSF tracks between 1st and 4th Ave S	\$149.1	Yes	2020
Seattle Center City Connector	City of Seattle	Modern streetcar connecting South Lake Union and First Hill Streetcar lines	\$144.8	Yes	2020
East Link	Sound Transit	East Link Extension to Redmond	\$3,502.6	Yes	2023
RapidRide Corridor 5	City of Seattle	New RapidRide service between Ballard – UW District – Laurelhurst	\$56.4	Yes	2022
RapidRide Corridor 6	City of Seattle	New RapidRide Service between Northgate and downtown Seattle Via Ballard	\$92.1	Yes	2023
RapidRide D Line Improvements	City of Seattle	Operations and capital improvements	\$42.0	Yes	2038
RapidRide C Line Improvements	City of Seattle	Operations and capital improvements	\$98.0	Yes	2038
Third Avenue Transit Spine	City of Seattle	Creates transit spine and transit capacity improvements along Third Avenue	\$86.3	Yes	2038
SODO/Burien RapidRide Line	King County Metro	New RapidRide line between Burien and downtown Seattle via Delridge	\$67.1	No	2020
2nd Avenue Protected Bike Lane	City of Seattle	Create protected bicycle lane on 2nd Avenue	\$21.6	No	2021
Burke-Gilman Trail Extension	City of Seattle	Multi-use trail along north side of Ship Canal	\$21.5	No	2022
Alaskan Way Viaduct Overlook	City of Seattle	Reconstruction of surface street and promenade	\$709.3	No	2023
SODO Rail Corridor Grade Separation	City of Seattle	Roadway grade separations above BNSF tracks in SODO	\$154.4	No	2025
Priority Bus Corridor 2 – Denny	City of Seattle	Capital improvements to speed bus service and improve reliability	\$42.6	No	2025
Priority Bus Corridor 6 – Pike/Pine	City of Seattle	Capital improvements to speed bus service and improvement reliability	\$14.4	No	2025
Priority Bus Corridor 8 – Queen Anne	City of Seattle	Capital improvements to speed bus service and improvement reliability	\$29.8	No	2035
Sounder South Capital Improvements	Sound Transit	State of good repair and capital capacity improvements	\$1,076.0	No	2036
Interbay – Madison Park RapidRide	King County Metro	New RapidRide line connecting Interbay and Madison Park via Capitol Hill	\$33.5	No	2040
Green Lake-Downtown RapidRide	King County Metro	New RapidRide line between downtown Seattle and Green Lake	\$46.0	No	2040

SOURCE: PSRC, Transportation Improvement Program, 2017.

2.3 Local and County plans and studies

2.3.1 City of Seattle Comprehensive Plan (2017)

The *City of Seattle Comprehensive Plan* outlines the city's growth and development strategy for the city, specifying "The urban village strategy is Seattle's growth strategy." The plan envisions the creation of urban centers and urban villages with commercial centers connected via transit, pedestrian and bicycle networks, and streets. The city desires to increase densities, create public spaces, and make transit and public services more convenient. The plan identifies four types of urban centers, defined as follows:

- **Urban Centers:** The densest city neighborhoods, Urban Centers act as both regional centers and local neighborhoods, offering a mixture of land uses including housing, retail commercial, and employment opportunities.
- **Hub Urban Villages:** Communities that offer a balance between housing and employment, but generally less dense than urban centers. These areas provide goods, services, and employment to nearby neighborhoods.
- **Residential Urban Villages:** Areas of residential development, at lower densities than Hub Urban Villages, but with limited employment opportunities.
- **Manufacturing and Industrial Centers:** Industrial cores of the city.

Within the WSBLE Project study area, downtown Seattle, South Lake Union and Uptown are designated as Urban Centers, while Ballard and West Seattle Junction are identified as Hub Urban Villages. Ballard/Interbay Northend, and the Greater Duwamish (including SODO) areas are identified as Manufacturing and Industrial Centers (MICs).

Public transportation features prominently in many of the plan's goals. The plan specifies urban villages as strategic locations in the local and regional transportation network, with 15-minute or better peak hour transit headways and the possibility of improved connections to future HCT stations. The plan includes targets for trips to Seattle and urban centers made by travel modes other than automobiles.

While the plan does not identify the WSBLE Project specifically, it identifies LRT as a critical transportation resource for its ability to move people and leverage other land use goals to support increased development and land intensification. The plan includes policies and goals aimed at enhancing connections between neighborhoods and existing or future LRT stations.

The 2005 version of the comprehensive plan established a Transit Communities category, a subset of urban centers and villages, as complete, compact, connected places within easy walking distance of frequent transit services. The *City of Seattle Transit Master Plan* (discussed below) identified a Frequent Transit Network (FTN) vision for a network of transit corridors connecting the city's urban centers and villages with high-quality transit service within a short walk for most residents. These earlier efforts helped establish the framework for the urban villages and centers, connected via rapid public transportation.

2.3.2 City of Seattle Transit Master Plan (2016)

The *City of Seattle Transit Master Plan* (TMP) is a 20-year plan that identifies capital investments in transit facilities, services, programs, and system features to build upon the existing system. In preparation for ST3, the city of Seattle worked closely with Sound Transit. While planning and design of the Link LRT service is the responsibility of Sound Transit, the City of Seattle TMP outlines the city's policy guidance to Sound Transit regarding desired future transit investments. The latest update of the TMP identifies extensions of light rail to Ballard and West Seattle as top priority projects and includes them in the long-range HCT vision as shown in Figure 3-1. The plan discusses these two projects specifically:

- **Ballard to downtown:** The TMP identified a corridor between Ballard and Downtown as the highest demand transit corridor in Seattle, and the city of Seattle partnered with Sound Transit to evaluate alignment and mode alternatives in the HCT study discussed above. The alignment included in the TMP would start in Ballard at Northwest Market and 15 Avenue Northwest, cross the Ship Canal on a new multimodal bridge, pass west of Queen Anne Hill through Interbay with stops near West Dravus Street, West Newton Street and the Expedia campus, enter a tunnel west of Uptown, run east to make subway station stops near Mercer Street and 1st Avenue North, Harrison Street and 7th Avenue North, and Westlake and Denny to serve Uptown and South Lake Union.
- **West Seattle to downtown:** Another priority light rail project identified in the TMP is a connection between West Seattle and downtown. The TMP included a mixed surface and elevated alignment connecting to the Alaska Junction or High Point, with the possibility for future phases to extend further south.

In addition to the two light rail extensions, the TMP also addresses the capacity constraints of the existing Downtown Seattle Transit Tunnel (DSTT), and calls for the construction of a new downtown transit tunnel. The plan states "Sound Transit's examination of Ballard to downtown and West Seattle light rail alignments has included options that operate on surface streets. SDOT does not support surface street options due to highly constrained street capacity in the Center City, lower transit performance provided by surface running HCT, and the many competing demands for arterial street space. As such, the city of Seattle places investment in a new downtown transit tunnel as a high priority ST3 investment. Early analysis suggests that a tunnel running east of the existing DSTT between 4th and 6th avenues would be the optimal alignment. A new transit tunnel could be connected to the existing DSTT stations with subgrade pedestrian tunnels."

Figure 2-3 (City of Seattle Transit Master Plan High-Capacity Transit Vision) is from the TMP and illustrates the city's vision for the extension of HCT to the Interbay/Ballard and West Seattle neighborhoods.

2.3.3 King County Metro Strategic Plan for Public Transportation (2015)

In 2015, King County Metro Transit published an update to their *2011-2021 Strategic Plan* that outlines King County Metro's goals, objectives, and strategies for regional transit service investments. The plan is organized around eight goals, with emphasis on safety, equity, economic growth, and sustainability. While the plan does not identify the WSBLE Project specifically, it does address Sound Transit's vision for expanding the region's light rail system and the important role bus service plays in augmenting light rail service to attract riders. The plan recognizes that the bus system needs to adapt to HCT investments such as the WSBLE Project through route restructuring, improved service integration, and enhancements to service to increase service and system efficiencies. King County Metro's plan emphasizes performance monitoring to inform service improvements and evaluate return on investment. Prior to the start of new light rail service, including during planning and engineering phases, King County, Sound Transit, and other applicable agencies will work closely to restructure service to help match light rail headways, allocate resources, and avoid duplicative service.

2.3.4 King County MetroConnects Plan (2017)

The MetroConnects plan is a 25-year vision for improved transit service serving all of King County. Focused around the passenger, the plan emphasizes the goals of frequent, reliable, and fast service all day, every day throughout King County. To achieve this, the plan outlines a network of frequent, express, local and flexible services designed around a system of HCT routes including LRT, BRT, and RapidRide service that extend north and south of Downtown Seattle. The network allows for the quick movement of passengers across King County and the metro region, while establishing connections to destinations beyond the HCT lines. Key components of the plan include extensions of the light rail network and investments in the RapidRide network, constituting the trunk transit routes operating at the highest frequencies and carrying large volumes of passengers daily. The MetroConnects plan was developed along with the *ST3 System Plan*, sharing similar assumptions for transit service in King County. A strategic initiative of the MetroConnects plan is the One System initiative for improved coordination between the transit agencies that serve the Puget Sound region, especially between bus and rail modes. The plan also specifies investments in information technologies and mobile applications as additional passenger amenities and to improve system efficiencies such as mobile payment and off-board fare collection. Finally, another key initiative of this plan is to help the region maintain its economic competitiveness and focused development patterns by connecting urban hubs, villages, and major destinations. This plan will be an important element when considering bus-rail integration strategies related to the WSBLE Project.

2.4 Related corridor transportation plans

2.4.1 Seattle Monorail Project (1997 to 2005)

In the late 1990s and early 2000's, Seattle voters approved the development of a monorail transit system that would extend the current monorail system to various parts of the city, including West Seattle to Ballard via downtown Seattle. In November 1997, Seattle voters approved Initiative 41, a ballot measure that created the Elevated Transportation Company (ETC) to study the possibility of building a 40-mile monorail system in Seattle. Following initial planning studies, Seattle voters approved Initiative 53 in 2000 that provided funding to ETC to create a plan for building a monorail system. However, as costs continued to increase, voters

did not approve funds for the monorail's extension and the ETC was disbanded.

However, the feasibility studies confirmed some important design elements incorporated as part of the current WSBLE Project scope. Based in part on the findings of the *Intermediate Capacity Transit Study*, the ETC selected a 14-mile corridor that would extend from Ballard through downtown Seattle to West Seattle. The ETC studied this corridor in an EIS, which also examined various alignment options, including a West Alternative, an East Alternative, and other options/linkages.

2.4.2 Ballard to Downtown Seattle Transit Expansion Study (2014)

The *Ballard to Downtown Seattle Transit Expansion Study* (Sound Transit 2014) was a concept-level planning study exploring opportunities for improving transit connections between Ballard and downtown Seattle. The study evaluated several HCT alternatives serving the study area, with a goal of screening alternatives to identify a representative project for the ST3 plan. Each alternative extended LRT service north from the existing Westlake Station in downtown Seattle. A set of candidate corridor line segments was identified based on previous planning studies and community input, generally paralleling surface streets. Alternatives were developed by connecting the individual segments, followed by a multi-tiered alternatives review process that incorporated project goals and objectives to screen the segments and alignment alternatives. Some segments and alignments were immediately removed from consideration due to known engineering or environmental challenges, or community opposition. Five corridor options were carried forward for evaluation in the final screening review. The study did not recommend a specific corridor, but the results informed the ST3 Representative Project in the *ST3 System Plan*, approved by the Sound Transit board in June 2016.

2.4.3 South King County High Capacity Transit Corridor Study (2014)

Sound Transit also completed the *South King County High Capacity Transit Corridor Study* in 2014. This study evaluated several candidate corridors in central and south King County, including West Seattle, for HCT improvements and identified capital investments to further expand the existing HCT system. Similar to the *Ballard to Downtown Transit Expansion Study*, this study used a multi-tiered evaluation approach to screen alternatives against a set of criteria.

Out of 16 alternative alignments initially considered, six alternatives were carried forward into the study's final screening phase. Of these six, three extended LRT to the Alaska Junction area of West Seattle, and a fourth extended bus rapid transit (BRT) to Alaska Junction. Like the Ballard to downtown Seattle study, the South King County study did not recommend an alignment but did find that LRT ridership was higher than BRT ridership. This study also informed the project included in the 2014 Regional Transit Long-Range Plan and in ST3.

The study also introduced the concept of a new transit tunnel in downtown Seattle, identifying 5th and 6th avenues as candidate tunnel corridors. The study also mentions an elevated guideway along Alaskan Way, 1st Avenue, or 2nd Avenue.

3 CONCLUSIONS

The review of past plans and studies was conducted to help understand previous findings and decisions that have influenced the definition of the WSBLE Project and as a precursor to conducting new analyses. Since the late 1960s and early 1970s, components of the WSBLE Project have been included in several transportation plans and studies, beginning with the *Forward Thrust Plan*. Sound Transit, the city of Seattle, and the PSRC have conducted several regional and local planning exercises that provided the outline of the WSBLE Project advanced as part of the *ST3 System Plan*.

4 REFERENCES

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APPENDIX A

Index of Previous Studies

Documents	Link
<i>Sound Transit 3 (ST3) Plan</i> , Sound Transit June 2016 and project detail sheets	http://soundtransit3.org/
<i>Regional Transit Long-Range Plan</i> , Sound Transit, December 2014	https://www.soundtransit.org/projects/regional-transit-long-range-plan
Final Supplemental Environmental Impact Statement on the Regional Transit Long-Range Plan, November 2014	https://www.soundtransit.org/node/11578
<i>Transit Expansion Study – Ballard to Downtown Seattle</i> , June 2014	https://www.soundtransit.org/projects/ballard-transit-expansion-study
<i>South King County Corridor – High Capacity Transit Corridor Study – Final Report</i> , August 2014	https://www.soundtransit.org/Projects-and-Plans/High-Capacity-Transit-Corridor-Studies/High-Capacity-Transit-Studies-document-archive/HCT-documents/South-King-County-HCT-Study