South Kirkland to Central Issaquah via Bellevue Light Rail

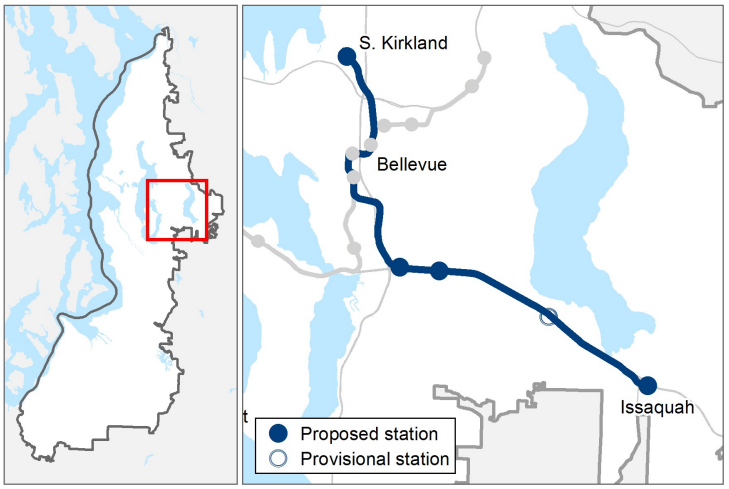
Subarea	East King
Primary Mode	Light Rail
Facility Type	Corridor
Length	11.75 miles
Date Last Modified	July 1, 2020

SHORT PROJECT DESCRIPTION

This project would provide a light rail connection from Issaquah to South Kirkland via downtown Bellevue including an alignment primarily at-grade, with four new stations and one provisional station.

Note: The elements included in this representative project will be refined during future phases of project development and are subject to change.

PROJECT AREA AND REPRESENTATIVE ALIGNMENT



KEY ATTRIBUTES	
REGIONAL LIGHT RAIL SPINE *Does this project help complete the light rail spine?*	No
CAPITAL COST *Cost in Millions of 2014 $*	$1,764 — $1,888
RIDERSHIP *2040 daily project riders*	12,000 — 15,000
PROJECT ELEMENTS	• Approximately 11.75 miles of new at-grade and elevated light rail • Two elevated stations: Central Issaquah, Richards Road (Factoria) • Two at-grade stations: Eastgate, South Kirkland Park-and-Ride • One provisional station in the vicinity of Lakemont. The design would accommodate a future elevated station in the vicinity of Lakemont Boulevard SE. • Stations accommodate 4-car trains • Potential modifications to East Link guideway and stations to accommodate this line • Widen the existing sidewalk on the west side of the 142nd Place SE overpass from the Eastgate flyer stop to the north and provide weather protection, if this work can be accomplished without structural modifications to the overpass • Accommodation of the Cross Kirkland Corridor/Eastside Rail Corridor trail per Sound Transit's High Capacity Transit Easement (2012); the trail is assumed to be generally located on the western side of the corridor • 500-stall parking garage and pedestrian bridge over I-90 constructed in Central Issaquah • Approximately 355-stall parking garage constructed at South Kirkland Park-and-Ride (removal of approximately 125 surface stalls, 230 net new stalls) • Signals and gates for at-grade rail crossings • Peak headways: 6 minutes • 1 percent for art per Sound Transit policy • Non-motorized access facilities (bicycle/pedestrian), bus/rail integration facilities, transit-oriented development (TOD)/planning due diligence, bus/rail integration facilities, and sustainability measures (see separate document titled "Common Project Elements")

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	KEY ATTRIBUTES
NOT INCLUDED	• Cost does not include construction of a station in the vicinity of Lakemont Boulevard SE (provisional station) • Temporary parking costs for South Kirkland Park-and-Ride stalls displaced by construction • Operations and maintenance facility not included • Construction of trail in Eastside Rail Corridor in Bellevue (except relocation as required by the HCT Easement Agreement) • Light rail vehicles not included • See separate document titled "Common Project Elements," "Light Rail Operations and Maintenance Facilities," and "Light Rail Vehicles"
ISSUES & RISKS	• Alignment is in close proximity to residential uses • Project construction will interrupt East Link operations • Project will impact WSDOT facilities where alignment is adjacent to or crosses over ramps and mainline freeway lanes. • Widening the 142nd Place SE overpass sidewalk will require some closures of the existing freeway station and possibly the I-90 westbound main lines. • Costs for any potential required relocation of 72" King County interceptor sewer line in Eastside Rail Corridor/Cross Kirkland Corridor are not included • A potential future PSE transmission line in Eastside Rail Corridor/Cross Kirkland Corridor • Coordination with Kirkland regarding the relocation and replacement of the Cross Kirkland Corridor trail • Light rail is a permitted use in Bellevue only if the alignment is approved by the Bellevue City Council; it is not currently a permitted use in Kirkland or Issaquah; light rail is included in all three cities' Comprehensive Plans and other planning documents

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Sound Transit developed a conceptual scope of work for this project for the purpose of generating a representative range of costs, both capital and operating; and benefits, including ridership forecasts, TOD potential, multi-modal access and others. This information was developed to assist the Sound Transit Board as it developed the ST3 system plan, including phasing of investments and financial plan, for voter consideration. Final decisions on project elements (e.g., alignment, profile, station locations, and number of parking stalls) will be determined after completion of system planning, project level environmental review, and preliminary engineering during which additional opportunities for public participation will be provided. Therefore, this scope definition should not be construed as a commitment that all representative features will be included in the final developed project.

Long Description:
This project would build light rail from the South Kirkland Park-and-Ride in South Kirkland to Central Issaquah (consistent with the Central Issaquah Plan). The project would build an elevated Central Issaquah Transit Station, south of I-90, with 500 parking stalls and a pedestrian bridge crossing over I-90. The project would travel from Central Issaquah on an elevated guideway to enter the I-90 median. The LRT guideway continues at-grade in the I-90 median (on structure over Lakemont Boulevard SE) to the Eastgate Park-and-Ride, where it crosses to the north side of I-90 via an elevated structure then transitions back to at-grade. The representative station at Eastgate is at-grade along the southern side of the existing transit center, allowing the existing direct access ramps and 142nd Place SE structure to remain. The project would include widening the 142nd Place SE overpass sidewalk to the north towards Bellevue College which will require some closures of the existing freeway station and possibly the I-90 westbound main line. West of the Eastgate Park-and-Ride, the LRT guideway travels along the north side of I-90. An elevated station on the north side of I-90 will be located near Richards Road SE to serve the Factoria area. The guideway continues along I-90 until it reaches I-405 where it turns north. The LRT guideway travels along the east side of I-405 at-grade to SE 8th Street where it transitions to an elevated guideway before heading west over I-405. The elevated guideway crosses over SE 8th Street, 112th Avenue SE and then interlines with East Link tracks south of the Main Street Station. The Bellevue to Issaquah line would include minor improvements to East Link's East Main, Bellevue Downtown and Wilburton Stations. The NB South Kirkland to Central Issaquah track separates from East Link south of the Wilburton Station to create a grade separated crossing of the Bellevue OMSF yard lead junction. A platform for the NB track is provided at the Wilburton Station to allow for transfer between the South Kirkland to Central Issaquah line and East Link. North of the Wilburton Station the NB track crosses over the turn-out to the Bellevue OMSF and returns to at-grade within the Eastside Rail Corridor/Cross Kirkland Corridor right-of-way and provides station access at the South Kirkland Park-and-Ride. The SB South Kirkland to Central Issaquah track connects to the OMSF SB yard lead and interlines with East Link SB track at the Bellevue yard/main line junction.

Assumptions:
- Generally located within existing transportation rights-of-way, mostly I-405, I-90 and the Eastside Rail Corridor/Cross Kirkland Corridor, but with sections along local arterials and some private properties
- The representative project assumes interlining with East Link between the East Main and Wilburton Stations
- The sidewalk improvements on the 142nd Place SE overpass at Eastgate will only be built if structural modifications to the bridge are not required
- For non-motorized station access allowances, the South Kirkland, Richard Roads, Eastgate, and Central Issaquah stations are categorized as suburban stations
- Bus/rail integration facilities have been assumed at Eastgate and Central Issaquah

Environmental:
Sound Transit will complete project-level state and federal environmental reviews as necessary; provide mitigation for significant impacts; obtain and meet the conditions of all required permits and approvals; and strive to exceed compliance and continually improve its environmental performance.

Utilities:
Utility relocation as needed to complete the project, including fiber optics, sewer, water, overhead electric/communications, etc.

Right-of-Way and Property Acquisition:
- Right-of-way required for guideway is mostly within the Eastside Rail Corridor/Cross Kirkland Corridor, I-405, I-90, and arterial rights-of-way, but property acquisitions are possible for some adjacent parcels and along the SE 8th Street corridor
- Property acquisition required for stations and parking
- Property acquisition for bus/rail integration facilities

Potential Permits/Approvals Needed:
- Building permits: Electrical, Mechanical, Plumbing
- Utility connection permits
- Construction-related permits (clearing and grading, stormwater management, street use, haul routes, use of city right-of-way)

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- Land use approvals (Conditional use, design review, site plans, Comprehensive Plan or development code consistency, Special Use Permits)
- All required local, state, and federal environmental permits
- WSDOT and FHWA approval for the use of and/or crossings of I-405, I-90 and SR 520 rights-of-way
- NEPA/SEPA and related regulations

Project Dependencies:

- Requires further analysis to determine how to best integrate operations with East Link
- Identification of additional funding to build the provisional Lakemont station
- Construction of two new operations and maintenance bases in the north and south corridors (separate projects) is required to accommodate the fleet required for this corridor. See separate document "Light Rail Operations and Maintenance Facilities"

Potential Project Partners:

- WSDOT
- Cities of Kirkland, Bellevue and Issaquah
- King County
- Transit partner serving project: King County Metro
- FTA
- FHWA

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Cost:
Sound Transit developed a conceptual scope of work for this project for the purpose of generating a representative range of costs, both capital and operating; and benefits, including ridership forecasts, TOD potential, multi-modal access and others. This information was developed to assist the Sound Transit Board as it developed the ST3 system plan, including phasing of investments and financial plan, for voter consideration. Final decisions on project elements (e.g., alignment, profile, station locations, and number of parking stalls) will be determined after completion of system planning, project level environmental review, and preliminary engineering during which additional opportunities for public participation will be provided. Therefore, this scope definition should not be construed as a commitment that all representative features will be included in the final developed project.

In Millions of 2014$

ITEM	COST	COST WITH RESERVE
Agency Administration	$93.83	$100.39
Preliminary Engineering & Environmental Review	$53.77	$57.53
Final Design & Specifications	$106.70	$114.17
Property Acquisition	$196.97	$210.75
Construction	$1,088.37	$1,164.56
Construction Management	$96.03	$102.76
Third Parties	$21.94	$23.48
Vehicles	$0.00	$0.00
Contingency	$106.70	$114.17
Total	**$1,764.31**	**$1,887.81**

Design Basis: Conceptual

The costs expressed above include allowances for TOD planning and due diligence, Sustainability, Bus/rail integration facilities, and Non-Motorized Access. These allowances, as well as the costs for Parking Access included above, are reflected in the following table. Property acquisition costs are not included in the table below, but are included within the total project cost above. For cost allowances that are not applicable for this project, "N/A" is indicated.

ITEM	COST	COST WITH RESERVE
TOD planning and due diligence	$1.02	$1.09
Sustainability	$14.95	$16.00
Parking access	$44.65	$47.77
Non-motorized (bicycle/pedestrian) access	$30.76	$32.91
Bus/rail integration facilities	$5.50	$5.89

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Evaluation Measures:

MEASURE		MEASUREMENT/RATING	NOTES
	**Regional Light Rail Spine** *Does project help complete regional light rail spine?*	No	
	**Ridership** *2040 daily project riders*	12,000 — 15,000	
	**Capital Cost** *Cost in Millions of 2014 $*	$1,764 — $1,888	Does not include provisional station
	**Annual O&M Cost** *Cost in Millions of 2014 $*	$28	Does not include provisional station
	**Travel Time** *In-vehicle travel time along the project (segment)*	23 min	Travel time between South Kirkland Station and Central Issaquah Station
	**Reliability** *Quantitative/qualitative assessment of alignment/route in exclusive right-of-way*	High	
	**System Integration** *Qualitative assessment of issues and effects related to connections to existing local bus service and potential future integration opportunities*	Medium-Low	Low to medium number of existing daily transit connections from South Kirkland to Issaquah and future integration opportunities with light rail service
	**Ease of Non-motorized Access** *Qualitative assessment of issues and effects related to non-motorized modes*	Medium-Low	Low to medium intersection densities providing nonmotorized access; crossings available at I-90 stations. Large parcels a barrier.
	Percent of Non-motorized Mode of Access *Percent of daily boardings*	25-35%	
	**Connections to PSRC-designated Regional Centers** *Number of PSRC-designated regional growth and manufacturing/industrial centers served*	2 centers	Bellevue Downtown, Central Issaquah
	**Land Use and Development/TOD Potential** *Quantitative/qualitative assessment of adopted Plans & Policies and zoning compatible with transit-supportive development within 0.5 mile of potential stations* *Qualitative assessment of real estate market support for development within 1 mile of potential corridor* *Density of activity units (population and employment for 2014 and 2040) within 0.5 mile of potential station areas*	Medium Medium Pop/acre = 2014: 4; 2040: 6 Emp/acre = 2014: 10; 2040: 13 Pop + Emp/acre = 2014: 14; 2040: 19	Moderate support in local and regional plans; approx. 40% land is compatibly zoned Moderate market support
	**Socioeconomic Benefits** *Existing minority / low-income populations within 0.5 mile of potential station areas* *2014 and 2040 population within 0.5 mile of potential station areas* *2014 and 2040 employment within 0.5 mile of potential station areas*	35% Minority; 8% Low-Income Pop: 2014: 8,500; 2040: 11,600 Emp: 2014: 18,700; 2040: 24,900	

For additional information on evaluation measures, see http://soundtransit3.org/document-library