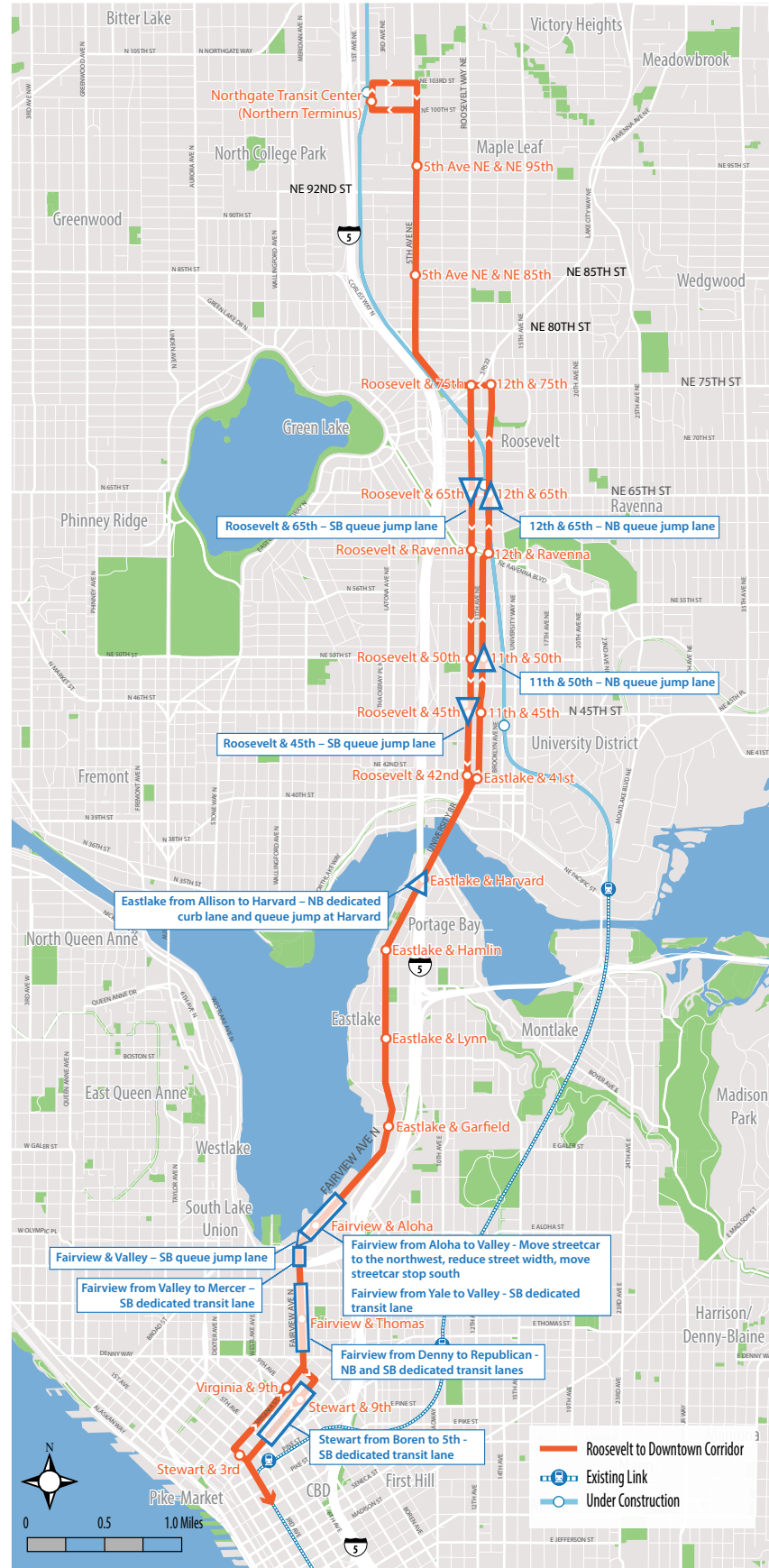










# Targeted Investment Concept



Location	Improvement	Justification
<b>All Areas</b>	Transit signal priority and RapidRide enhanced stations with larger shelters, off-board fare payment, lighting, sidewalk, and curb improvements.	Improve quality of transit service, speed, and reliability.
<b>NE Campus Parkway to NE 75th St</b>	<b>Protected bike lane</b> on Roosevelt Way NE and 11th/12th Ave NE couplet	Recommended bicycle facility network in Bicycle Master Plan, high bicycle volumes. Roosevelt Way from 65th St to Campus Parkway expected to be completed fall 2016.
<b>Roosevelt Way NE &amp; NE 65th St</b>	Southbound <b>queue jump</b> from 66th to 65th	Bus bypasses AM and PM congestion, allows direct access to SB bus stop after 65th.
<b>12th Ave NE &amp; NE 65th St</b>	Northbound <b>queue jump</b> from 64th to 65th	Bus bypasses PM peak hour congestion. Allows direct access to NB bus stop after 65th.
<b>11th Ave NE &amp; NE 50th St</b>	Northbound <b>queue jump</b> from 47th to 50th	Bus bypasses PM peak hour congestion, allows direct access to NB bus stop after 50th.
<b>Roosevelt Way NE &amp; NE 45th St</b>	Southbound <b>queue jump</b> from 47th to 45th	Bus bypasses AM and PM peak hour congestion, allows direct access to SB bus stop after 45th.
<b>Eastlake Ave E</b>	<b>Protected bike lane</b> from Harvard Ave E to Fairview Ave N; <b>Protected bike lane</b> on University Bridge	Recommended bicycle facility network in Bicycle Master Plan. Current mixing of buses and bikes, high bicycle crash locations, nearby bicycle alternatives insufficient / unlikely to be used.
<b>Eastlake Ave E &amp; Harvard Ave E/ Fuhrman Ave E</b>	Northbound <b>queue jump</b> from Allison to Harvard; Northbound and southbound left turn prohibitions at Fuhrman; Longer southbound left turn lane at Harvard	Bus bypasses PM northbound regular congestion. Assists bus with additional northbound congestion when University Bridge is raised. Heavy southbound left turn traffic at Fuhrman with short turn lane and short green time. Insufficient southbound left turn storage capacity at Harvard. Very low northbound left turn traffic at Fuhrman moved to Allison Street.
<b>Eastlake Ave E &amp; Fairview Ave N</b>	Intersection reconfiguration and signal phasing to accommodate <b>protected bike lane</b>	Connect protected bike lanes north and south.
<b>Fairview Ave N &amp; Aloha St</b>	Intersection <b>reconfiguration and align</b> driveways	Intersection currently poorly defined and complicated by streetcar, streetcar stop, bus stop, and pedestrian movements.
<b>Fairview Ave N from Aloha St to Valley St</b>	Move streetcar to the northwest side of roadway and move stop south to Aloha	Removes streetcar operations from Fairview / Valley intersection allowing better signal phasing, faster travel for streetcar, closer transfer between streetcar and bus lines, better defined intersection for motorists, accommodates RapidRide C line end point.
<b>Fairview Ave N &amp; Valley St</b>	Southbound <b>queue jump</b> lane from north of Yale Ave N to Valley St	Bus bypasses southbound AM and PM congestion.
<b>Fairview Ave from Valley St to Mercer St</b>	Southbound <b>dedicated transit lane</b>	Bus bypasses southbound AM and PM congestion.
<b>Fairview Ave from Denny Way to Republican St</b>	Northbound and southbound <b>business-access and transit (BAT) lane</b>	Bus bypasses northbound and southbound congestion at Fairview/Mercer in AM and PM. Dedicated lanes bypass northbound traffic backups associated with Fairview/Mercer. Provide higher bus speeds both directions.
<b>Stewart from 5th to Boren</b>	Southbound <b>dedicated transit lane</b>	Currently used during morning peak by many bus routes. Changing to full time accommodates RapidRide frequent, all-day service.

\*Queue jump: Allows buses to get ahead of vehicle queues by using a dedicated bus lane and signal timing which gives the bus a green signal prior to general traffic.

# Concept Evaluation Summary

		Downtown to NE 45th St		Downtown to NE 65th St		Downtown to Northgate Transit Center	
		Future without Project	With Targeted Investment	Future without Project	With Targeted Investment	Future without Project	With Targeted Investment
Transportation	 <b>Daily Boardings</b> <i>(Average Weekday)</i>	5,500 Daily boardings	<b>7,100</b> Daily boardings <i>29% over existing</i>	8,600 Daily boardings	<b>9,100</b> Daily boardings <i>6% over existing</i>	11,300 Daily boardings	<b>12,300</b> Daily boardings <i>9% over existing</i>
	 <b>Peak Bus Speed</b>	4.4 mph Average peak speed	<b>5.4 mph</b> Average peak speed <i>23% faster than existing</i>	5.1 mph Average peak speed	<b>6.3 mph</b> Average peak speed <i>24% faster than existing</i>	6.8 mph Average peak speed	<b>7.8 mph</b> Average peak speed <i>15% faster than existing</i>
	 <b>Peak Bus Travel Time</b>	49 minutes	<b>40 minutes</b> <i>9 minutes average time savings compared to existing</i>	57 minutes	<b>47 minutes</b> <i>10 minutes average time savings compared to existing</i>	72 minutes	<b>56 minutes</b> <i>16 minutes average time savings compared to existing</i>
	 <b>Peak Auto Speed</b>	11.5 mph Average peak speed	<b>9.3 mph</b> Average peak speed <i>19% slower than existing</i>	12.6 mph Average peak speed	<b>10.4 mph</b> Average peak speed <i>17% slower than existing</i>	14.1 mph Average peak speed	<b>12.0 mph</b> Average peak speed <i>15% slower than existing</i>
Costs	 <b>Capital Cost</b> <i>(Does not include fleet)</i>		<b>\$24.5 Million</b> <i>Includes streetcar relocation ~\$7 M; Catenary ~\$2.5 M</i>		<b>\$37.6 Million</b> <i>Includes streetcar relocation ~\$7 M; Catenary ~\$11.3 M</i>		<b>\$52.5 Million</b> <i>Includes streetcar relocation ~\$7 M; Catenary ~\$23.3 M</i>
	 <b>Annual Operating Cost</b>		<b>\$12.8 Million</b> 76,900 annual vehicle hours		<b>\$15.4 Million</b> 92,600 annual vehicle hours		<b>\$18 Million</b> 108,200 annual vehicle hours
Parking and Loading	 <b>Parking</b>	707 spaces <i>Includes 283 peak-restricted spaces</i>	<b>195 spaces retained</b> <i>28% spaces retained</i>	1104 spaces <i>Includes 283 peak-restricted spaces</i>	<b>463 spaces retained</b> <i>42% spaces retained</i>	1630 spaces <i>Includes 283 peak-restricted spaces</i>	<b>850 spaces retained</b> <i>52% spaces retained</i>
	 <b>Loading Zones</b>	58 zones	<b>33 zones</b> <i>58% zones retained 23 remain in place, 10 moved to nearby location</i>	63 zones	<b>37 zones</b> <i>59% zones retained 25 remain in place, 12 moved to nearby location</i>	83 zones	<b>48 zones</b> <i>58% zones retained 35 remain in place, 13 moved to nearby location</i>

Notes: Information provided is preliminary and subject to change as additional analysis is conducted and the project is refined. Peak-restricted parking spaces are those where parking is not allowed during peak commute hours.