BEFORE THE HEARING EXAMINER
FOR THE CITY OF SEATTLE

In the Matter of the Appeals of: SEATTLE FOR GROWTH and SEATTLE MOBILITY COALITION From a Determination of Nonsignificance issued by the Seattle City Council.	Hearing Examiner Files: W-18-012 W-18-013 DECLARATION OF SCOTT A. KOPPELMAN

I, Scott A. Koppelman, declare as follows:

1. I am competent to testify and make this declaration based on my personal knowledge. I am an Authorized Person and Senior Vice President for Development with AMLI Development Company LLC ("AMLI"), a real estate development and management company with a national portfolio of multifamily communities. AMLI is the parent company to subsidiary single purpose entities that own six multifamily properties in the City of Seattle and is working to develop other properties. AMLI and its subsidiaries are members of the Seattle Mobility Coalition ("Coalition").

2. I have reviewed the Comprehensive Plan amendments ("Amendments") proposed by the City of Seattle ("City") that are the subject of the Determination of Nonsignificance

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

("DNS") at issue in this appeal. A true and correct copy of the Amendments is attached as Exhibit A to this declaration. The Amendments include amendments to the Transportation Element and Transportation Appendix. The amendments to the Transportation Appendix includes a list and map of projects that are eligible for expenditures using revenue from the transportation impact fee program ("Eligible Projects").

3. Many Coalition members have properties and projects that would be adversely impacted by the Amendments. I am making this declaration in order to provide representative examples of these properties, projects and impacts, while avoiding the duplication and repetition that would result if information were provided from all affected Coalition members. Three of AMLI's existing properties would be directly impacted by the construction of Eligible Projects. The fees would also impact at least one other AMLI project, which is still in development, in several negative ways.

AMLI Mark24

4. The first existing property that would be impacted is AMLI Mark24, a 304-unit apartment building with ground-floor retail located at 2428 NW Market Street in Ballard. This property is owned by AMLI subsidiary PPF AMLI 2428 NW Market Street, LLC, a member of the Seattle Mobility Coalition. AMLI Mark24 occupies nearly two thirds of its block and overlooks the intersection of NW Market Street and 24th Avenue NW. The planned "Market/45th Transit Improvement Project" and the "Northgate-Ballard-Downtown Transit Improvements," both Eligible Projects, would have significant effects on AMLI Mark24 and its surroundings.

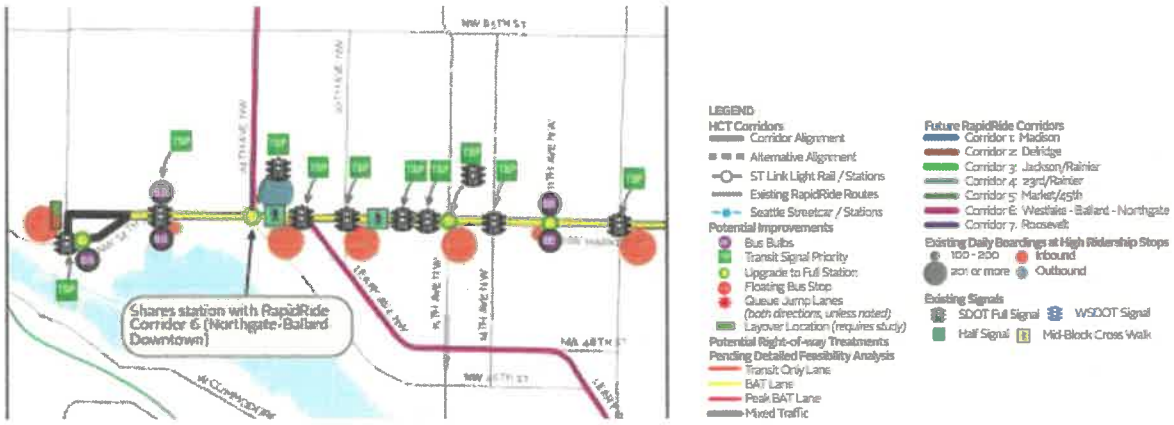
5. The Market/45th project and the Northgate-Ballard project are described in the Seattle Department of Transportation's (SDOT) 2018-2023 Proposed Capital Improvement

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

Program, 2016 Transit Master Plan, and November 2018 Levy to MOVE Seattle Workplan Report. True and correct copies of excerpts from these documents are attached to this declaration as Exhibits B, C and D, respectively. Each of these indicates an intent to transform the stretch of NW Market Street on which the AMLI Mark24 fronts, and to make major changes to 24th Avenue NW north of NW Market Street and Leary Avenue NW southeast of NW Market Street, which carry a substantial amount of traffic to and from our property.

The Mark24 occupies nearly two thirds of the block to the northwest of the NW Market and 24th Ave intersection.

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax



This map, from page 3-42 of the Transit Master Plan, shows a planned station upgrade at that intersection. .

6. Most significantly, two planned RapidRide corridors will intersect at NW Market Street and 24th Avenue, and a new station is planned for that corner, which already sees more than 200 inbound and 200 outbound passengers board every day. A nearly 30-block section of NW Market Street, including the AMLI Mark24's block, will be remade with a dedicated bus lane. The Seattle Transit Master Plan details the many alterations to the physical environment and traffic patterns that will come with RapidRide, including stations with "raised platforms" and "larger shelters," new signage and fare collection infrastructure, and transit signal changes. Exhibit C, p. 14.

7. AMLI Mark24's residents, retailers, and AMLI's eight on-site employees will be significantly affected during the construction phase of these projects by construction noise, dust, and emissions and by disruptions to vehicular and pedestrian access to our building and to on-street parking. After the RapidRide improvements are added, AMLI Mark24 will be significantly affected by the altered traffic patterns and parking availability created by the larger station, raised platform, and bus-only lane on NW Market Street and by increased glare from the glass or glass-like shelter.

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

AMLI 535 and AMLI South Lake Union

8. The second and third existing properties that would be impacted are the AMLI 535 and the AMLI South Lake Union, both apartment buildings with ground-floor retail in South Lake Union. These properties are owned by AMLI subsidiaries AMLI 535 Pontius Avenue North, LLC and PPF AMLI 1260 Republican Street, LLC, respectively, members of the Seattle Mobility Coalition. AMLI 535 has 199 units and is located at 535 Pontius Avenue North; AMLI South Lake Union has 293 units and is located at 1260 Republican Street. The planned "Roosevelt to Downtown Complete Street" project, included on the list of Eligible Projects, would significantly impact these properties.

9. As discussed in SDOT's 2018-2023 Proposed Capital Improvement Program (Exhibit B, pp. 94-95), 2016 Transit Master Plan (Exhibit C, pp. 3-50 to 3-53), the November 2018 Levy to MOVE Seattle Workplan Report (Exhibit D, pp. 35-36), and an SDOT project webpage, the Roosevelt project would include RapidRide alterations to Fairview Avenue North, which is just two blocks to the west of both properties and is a major access street for their residents, staff, retailers, and customers. A true and correct copy of the SDOT project webpage is attached to this declaration as Exhibit E. These alterations would include a transit lane on Fairview as well as new stations one block to the south at the intersection of Fairview and Harrison Street.

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

The AMLI 535 and the AMLI South Lake Union properties are located two blocks east of Fairview Avenue North and one block north of Harrison Street.

Station Treatment

Existing Station

New/Upgraded Station

As shown on this map excerpt (a full version of which is attached as Exhibit F), two new or upgraded stations are planned for the intersection of Fairview Avenue North and Harrison Street.

10. People living in and visiting the AMLI 535 and the AMLI South Lake Union properties, and AMLI's 15 on-site employees (seven at AMLI 535 and eight at AMLI South Lake Union), will be significantly impacted during the construction phase of these projects by

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

construction noise, dust, and emissions from alterations to Fairview Avenue North and the construction of a station, as well as by the traffic effects, barriers to vehicular and pedestrian access to the buildings, and disruption of on-street parking that this construction would cause. After the RapidRide improvements were added, the buildings will be significantly affected by the altered traffic patterns and parking availability created by the changes to Fairview Avenue North.

1101 Western

11. AMLI is planning to build a mixed-use project at 1101 Western Avenue in Downtown Seattle. This property is owned by AMLI subsidiary Woldson Western 01 LLC, a portion of which will soon be ground leased to AMLI subsidiary PPF AMLI Western Avenue, LLC, both members of the Seattle Mobility Coalition. The project is currently preparing for the Early Design Guidance process, and we (AMLI) estimate applying for a building permit in mid-2020. We may still make significant changes in our plans for the project as dictated by the permitting process and by our assessments of likely construction costs.

12. I have reviewed publicly available information compiled by the City and presented by the City in connection with the proposed Amendments about the range of transportation impact fees imposed by surrounding jurisdictions. A transportation impact fee imposed by the City that is consistent with that range would limit AMLI's ability to develop the property as we plan.

13. A transportation impact fee would increase AMLI's costs for development of the project. Accordingly, all or a portion of this extra cost would be passed on to the building's residential tenants, with a negative effect on housing affordability in the area.

McCullough Hill Leary, PS
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206.812.3388
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14. Although no parking is required for downtown projects, AMLI has proposed approximately 160 above- and below-grade parking spaces at 1101 Western. In addition to passing along all or a portion of the transportation impact fee to its tenants, AMLI would reduce the amount of parking it will provide to offset the increased project costs, impacting parking availability in the area.

I declare under penalty of perjury that the foregoing is true and correct. Executed this ___ day of January 2019, at Seattle, Washington.

Scott Koppelman

McCullough Hill Leary, PS
701 Fifth Avenue, Suite 6600
Seattle, Washington 98104
206.812.3388
206.812.3389 fax

EXHIBIT A

CITY OF SEATTLE

ORDINANCE _____

COUNCIL BILL _____

..title
AN ORDINANCE amending the Seattle Comprehensive Plan to incorporate changes related to a transportation impact fee program proposed as part of the 2017-2018 Comprehensive Plan annual amendment process.
..body
WHEREAS, the City of Seattle adopted a Comprehensive Plan through Ordinance 117221 in 1994 and most recently amended the Comprehensive Plan in 2017; and

WHEREAS, the Growth Management Act authorizes annual amendments to the City's Comprehensive Plan; and

WHEREAS, the adopted procedures in Resolution 31807 provide the process for interested citizens and Councilmembers to propose annual amendments for consideration by the City Council; and

WHEREAS, the Council proposed consideration of Comprehensive Plan amendments related to impact fees, including transportation impact fees, during the 2017-2018 annual amendment process; and

WHEREAS, the Council's Planning, Land Use and Zoning Committee held a public hearing on July 24, 2017, to take public testimony on the amendments proposed for consideration; and

WHEREAS, on August 7, 2017 the City Council considered proposed Comprehensive Plan amendments and adopted Resolution 31762 directing that City staff further review and analyze amendments necessary to implement an impact fee program; and

WHEREAS, impact-fee related amendments have been developed and analyzed by the Council Central Staff and considered by the Council; and

WHEREAS, the City has provided for public participation in the development and review of these proposed amendments and other changes to comply with the Growth Management Act, including requirements for early and continuous public participation in the development and amendment of the City's Comprehensive Plan; and

WHEREAS, the Council has considered public testimony made at the public hearing(s), and other pertinent material regarding proposed transportation impact fee-related amendments; and

WHEREAS, the Council finds that the transportation impact fee-related amendments to the Comprehensive Plan are consistent with the Growth Management Act, and will protect and promote the health, safety, and welfare of the general public; NOW, THEREFORE,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. The Seattle Comprehensive Plan, last amended by Ordinance 125428, is amended as follows:

A. Amendments to the Transportation Element, as shown in Attachment 1 to this ordinance; and

B. Amendments to the Transportation Appendix, as shown in Attachment 3 to this ordinance.

Section 2. This ordinance shall take effect and be in force 30 days after its approval by the Mayor, but if not approved and returned by the Mayor within ten days after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

Passed by the City Council the _____ day of _____, 2018, and signed by me in open session in authentication of its passage this _____ day of _____, 2018.

_____

President _____ of the City Council

Approved by me this _____ day of _____, 2018.

_____

Jenny A. Durkan, Mayor

Filed by me this _____ day of _____, 2018.

_____

Monica Martinez Simmons, City Clerk

(Seal)

Attachments:
Attachment 1 – Amendments to the Transportation Element
Attachment 2 – Amendments to the Transportation Appendix

ATTACHMENT 1:
Amendments to the Transportation Element

***

Measuring Level of Service

Discussion

To accommodate the growth anticipated in this Plan and the increased demands on the transportation system that come with that growth, the Plan emphasizes strategies to increase travel options. Those travel options are particularly important for connecting urban centers and urban villages during the most congested times of day. Strategies for increasing travel options include concentrating development in urban villages well served by transit, completing the City's modal plan networks, and reducing drive-alone vehicle use during the most congested times of day. As discussed earlier in this Transportation element, using the current street right-of-way as effectively as possible means encouraging forms of travel other than driving alone.

In order to help advance this Plan's vision, the City will measure the level of service (LOS) on its transportation facilities based on the share of all trips that are made by people driving alone. That measure focuses on travel that is occurring via the least space-efficient mode. By shifting travel from drive-alone trips to more efficient modes, Seattle will allow more people and goods to travel in the same amount of right-of-way. Because buses are the primary form of transit ridership in the city and buses operate on the arterial system, the percentage of trips made that are not drive-alone also helps measure how well transit can move around the city. For the purposes of establishing a transportation impact fee program, the City will identify the demands placed on the system by new development by establishing the future cost per person trip of capacity-related improvements to the transportation system relative to the value of the existing system. This existing-system-value methodology complements the level of service by focusing on person trips, regardless of mode. A more detailed description of the City's transportation LOS system and existing-system-value methodology can be found in the Transportation Appendix.

GOAL

TG 9 Use LOS standards as a gauge to assess the performance of the transportation system.

TG 10 Base transportation impact fees on the difference between the value of the existing transportation system and the cost of identified capacity-related improvements needed to address the impacts of growth.

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Funding

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POLICIES

T 10.1 Maintain and increase dedicated local transportation funding by renewing or replacing the transportation levy and by maintaining or replacing the existing commercial parking tax and Seattle Transportation Benefit District.

T 10.2 Work with regional and state partners to encourage a shift to more reliance on user- based taxes and fees, and on revenues related to impacts on the transportation system and the environment.

T 10.3 Leverage local funding resources by securing grants from regional, state, and federal sources, and through contributions from those who benefit from improvements.

T 10.4 Partner with other City departments, as well as regional transportation and public works agencies, to coordinate investments, maximize project integration, reduce improvement costs, and limit construction impacts on neighborhoods.

T 10.5 Make strategic investment decisions consistent with City plans and policies.

T 10.6 Prioritize investment by considering life-cycle costs, safety, environmental benefits, reduction of greenhouse gas emissions, and public health benefits. Race and social equity should be a key factor in selecting transportation investments.

T 10.7 ((Consider)) ((~~u~~))Use ((~~of~~)) transportation-impact fees to help fund transportation system improvements needed to serve growth.

T 10.8 Prepare a six-year Capital Improvement Program (CIP) with projects and

programs that are fully or partially funded.

T10.9 Develop prioritized lists of projects, consistent with City policies, and actively pursue funds to implement those projects.

T10.10 Identify and evaluate possible additional funding resources and/or alternative land use and transportation scenarios if the level of transportation funding anticipated in the six-year financial analysis (shown in Transportation Figures 9 and 10) falls short of the estimated amount.

T10.11 Explore innovative means of reducing maintenance costs such as converting right-of-way into other uses when appropriate.

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ATTACHMENT 2:
Amendments to the Transportation Appendix

***

Transportation Impact Fees

A transportation impact fee program partially addresses service needs by helping to fund capacity improvements to existing facilities and new capital projects. The program identifies projects needed to address demands on the transportation network associated with growth and new development. In determining existing deficiencies the City utilizes a methodology based on a quantification of the value of the existing transportation system.

Existing System Value Methodology

The existing system value methodology establishes a maximum allowable impact fee rate. This is a method of determining existing deficiencies which establishes that the City cannot charge an impact fee rate that exceeds the value of the system that exists today.

First, the existing value of the transportation system is calculated using both the value of existing infrastructure and land in the right-of-way. This value is then divided by the number of current PM peak hour person trips to establish a current value per person trip. An impact fee rate cannot exceed this value.

Next, the total cost of impact-fee eligible capacity improvements are calculated based on a list of projects required to serve new development. That total amount is then divided by the number of new person trips forecast over a twelve year period, the timeframe for improvements listed in the impact fee program, to establish the cost per person trip of needed capacity improvements. Impact fee rates by land use are calculated based on that cost.

Facility Improvements to Serve New Development

The City has identified multiple projects serving all modes that are needed to address demands on the transportation network. The projects are drawn from multiple sources including the City's modal plans and are intended collectively to improve the performance and efficiency of the transportation network. Projects are listed in Transportation Appendix A-18 and most project locations are shown on Transportation Appendix A-19. Projects included in the list are eligible for expenditures using revenue from the transportation impact fee program.

Transportation Appendix Figure A-18

Impact Fee Eligible Projects

Project
1. Northgate-Ballard-Downtown Transit Improvements
2. Delridge Complete Street
3. Madison Street Bus Rapid Transit
4. Market / 45th Transit Improvement Project
5. Rainier / Jackson Complete Street
6. Roosevelt to Downtown Complete Street
7. Graham Street Station
8. Accessible Mt Baker
9. E Marginal Way Heavy Haul Network Improvements
10. Bike Master Plan Implementation
11. Pedestrian Master Plan Implementation
12. Freight Master Plan Implementation
13. Greenwood Phinney, 67th to Fremont Complete Street
14. Pike/Pine Complete Street
15. Yesler/Jefferson Complete Streets
16. 1st/1st Av S Corridor
17. 23rd Av - Phase 4
18. Aurora Avenue Complete Street
19. Beacon/12th/Broadway Complete Streets
20. Fauntleroy Way/California Transit Corridor
21. Lake City Way Complete Street

Transportation Appendix Figure A-19

Impact Fee Eligible Project Map

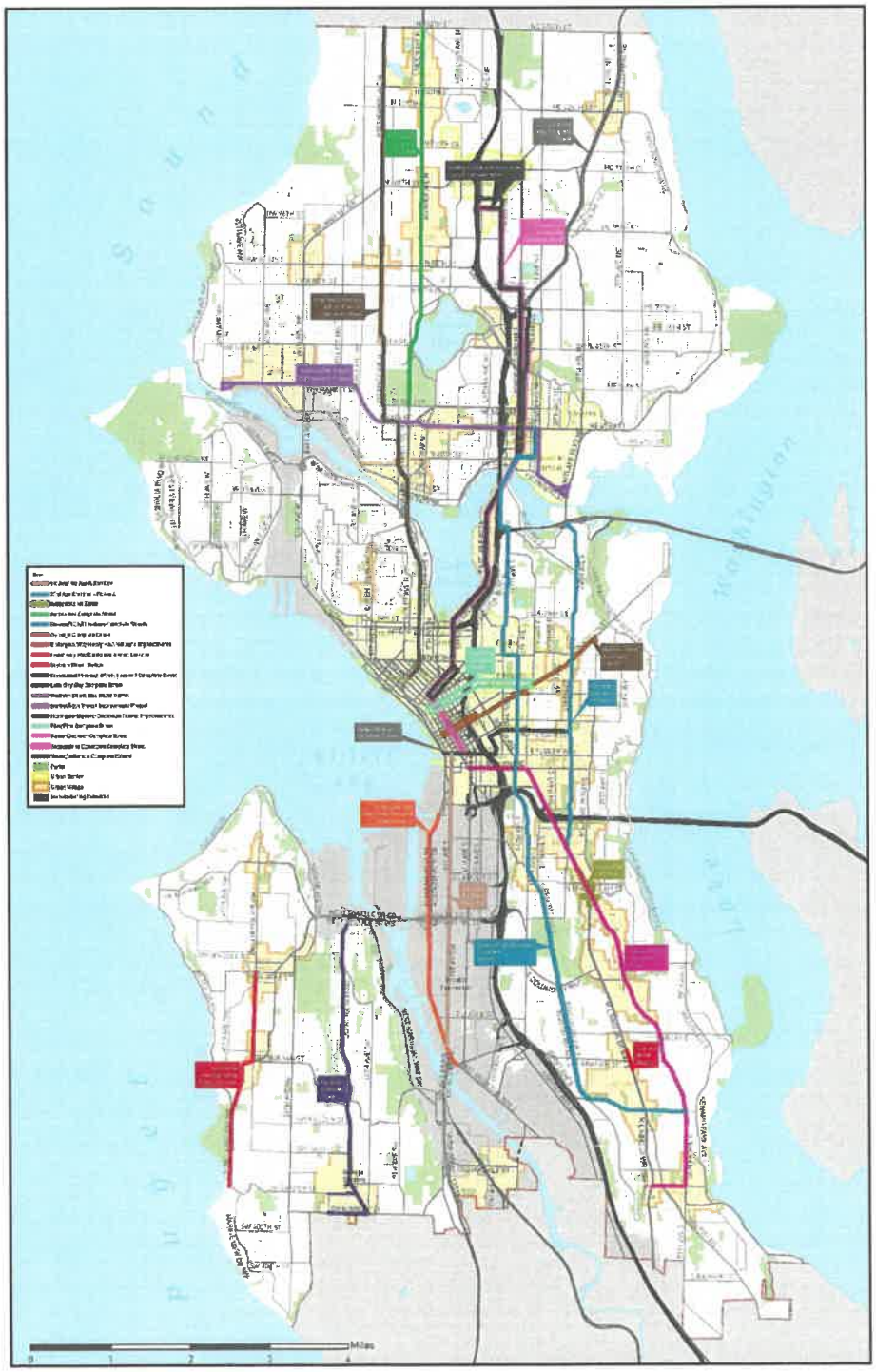


EXHIBIT B

The table below shows a summary of the Bicycle Master Plan investments:

Bike Master Plan Projects	2018	2019
Bike Master Plan - Greenways	2,700,000	4,300,000
Bike Master Plan - Protected Bike Lanes	9,480,000	3,926,000
Bike Master Plan - Urban Trails & Bikeways	1,000,000	1,000,000
Total	**13,180,000**	**9,226,000**

The table below shows projects that support both the Bike and Pedestrian Master Plans:

Projects that support the Bike & Pedestrian Master Plan	2018	2019
Burke-Gilman Trail Extension	4,930,730	3,086,970
NE 43rd Street Improvements	540,000	540,000
Sidewalk Safety Repair	3,560,600	1,591,812
SPU Drainage Partnership - Broadview Ped Improvements		594,000
Northgate Bridge and Cycle Track	65,000	13,892,022
Fauntleroy Way SW Boulevard	11,860,000	3,840,000
Total	**20,956,330**	**23,544,804**

Transit Projects:

The 2018 Proposed CIP contains several large capital projects including the Center City Streetcar Connector and Madison Street Bus Rapid Transit. Both projects are in the Federal Transit Administration's Small Starts program. The advanced utility work for the Center City Streetcar Connector project begins in 2017 and construction will continue into 2018. The 1.27-mile streetcar will complete the streetcar network by connecting the South Lake Union Streetcar and the First Hill Streetcar. The Madison BRT project is one of seven BRT projects in the Move Seattle Levy. In 2018, Madison BRT, Roosevelt RapidRide, Delridge RapidRide, Rainier RapidRide, and Market/45th RapidRide will be proceeding through design. Madison BRT is expected to start construction in 2018. In addition to large capital projects, the CIP contains budget for more than a dozen transit spot improvements throughout Seattle. These small capital projects will improve transit speed and reliability on buses across Seattle.

A new item in the proposed CIP is a $500,000 investment of vehicle license fees to pay the capital costs of implementing the ORCA fare payment system on the Seattle Center Monorail. This funding is included in the Transit Corridor Improvements project. For additional information, please see the Seattle Center section of the Capital Improvement Program.

The table below shows a summary of the transit investments:

Transit Master Plan Projects	2018	2019
Accessible Mt. Baker Implementation		850,000
23rd Avenue Corridor Improvements	10,216,529	5,568,800
3rd Avenue Corridor Improvements		557,980
Broadway Streetcar Extension		20,360,000
BRT Concepts Design	500,000	500,000
Center City Streetcar Connector	36,363,194	73,325,000
Delridge Multimodal Corridor	1,000,000	5,074,539
Madison Street Bus Rapid Transit	4,050,000	104,058,927
Market / 45th Multimodal Corridor	250,000	750,000
Rainier / Jackson Multimodal Corridor	1,400,000	2,227,857
Roosevelt Multimodal Corridor	2,855,700	7,189,135
Route 40 Northgate to Downtown Transit Improvements		575,000
Route 48 South Electrification	187,298	5,665,010
Sound Transit - East Link	170,000	70,000
Sound Transit North Link	308,278	309,629
Transit Corridor Improvements	4,073,079	3,823,000
Total	**61,374,078**	**230,904,877**

Freight Projects:

The most significant freight investment in the proposed CIP is the South Lander Street Grade Separation project. This $125 million project will enhance mobility and safety by building a new grade-separated crossing over the Burlington Northern/Santa Fe railroad tracks in SODO. The proposed CIP provides $36 million of City funds to support this project. The project has also received nearly $60 million in Federal funding, $14 million of state funds, and $17.5 million from the Port of Seattle and BNSF.

In addition, under the Heavy Haul Network program, the E Marginal Way Corridor Improvement Project is underway with $500,000 in levy funding. The Port of Seattle will contribute up to $20 million over the next 10 years toward projects on Heavy Haul Network streets, with the signature project being on E Marginal Way. The remainder of funds from this project are anticipated to be from State and Federal grants

The 2018-2013 Proposed CIP also includes $1.5 million annually for the Freight Spot Improvements project which includes smalr-scale, but vital freight spot improvement projects such as pavement repairs in industrial areas, turning radius adjustments, and other signage and operational improvements to facilitate movement of freight throughout the city.

Seattle Department of Transportation

Market / 45th Multimodal Corridor

Project Type:	Discrete	**Project No.:**	TC367790
Start/End Date:	2019-2022	**BCL/Program Code:**	19003
Project Category:	Improved Facility	**BCL/Program Name:**	Mobility-Capital
Current Project Stage:	Pre-Project Development	**Location:**	NW Market ST/N 45th ST
Neighborhood District:	Multiple	**Council District:**	Multiple
Total Project Cost:	$37,050	**Urban Village:**	Multiple

This project enhances transit speed and reliability on one of the city's primary east-west corridors and most chronically congested routes. The project adds intelligent transportation systems such as transit signal priority to improve bus travel times. It installs upgrades to transit stops and offers other rider amenities and enhances connections to northwest Seattle as well as the Ballard-Interbay Manufacturing Industrial Center.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Commercial Parking Tax	0	50	0	0	0	0	0	0	50
Transportation Move Seattle Levy - Lid Lift	0	0	250	750	1,500	3,500	3,500	0	9,500
To be determined	0	0	0	0	0	12,145	15,355	0	27,500
Total:	0	50	250	750	1,500	15,645	18,855	0	37,050

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Transportation Operating Fund	0	50	250	750	1,500	3,500	3,500	0	9,550
To Be Determined	0	0	0	0	0	12,145	15,355	0	27,500
Total:	0	50	250	750	1,500	15,645	18,855	0	37,050

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Transportation Operating Fund	0	50	250	750	1,500	3,500	3,500	0	9,550
To Be Determined	0	0	0	0	0	12,145	15,355	0	27,500
Total:	0	50	250	750	1,500	15,645	18,855	0	37,050

** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

Seattle Department of Transportation

Roosevelt Multimodal Corridor

Project Type:	Discrete	**Project No.:**	TC367380
Start/End Date:	2013-2021	**BCL/Program Code:**	19003
Project Category:	Improved Facility	**BCL/Program Name:**	Mobility-Capital
Current Project Stage:	Initiation, Project Definition, & Planning	**Location:**	Eastlake AVE/Stewart ST/NE 65th ST
Neighborhood District:	Multiple	**Council District:**	Multiple
Total Project Cost:	$34,003	**Urban Village:**	Multiple

This project will develop and implement a range of transit and street improvements in the Eastlake Avenue corridor connecting the University District, Eastlake and South Lake Union neighborhoods between Downtown and the Roosevelt Link LRT station area. The corridor is identified as a priority in the Transit Master Plan. This project will identify, prioritize, design and construct the highest priority "speed and reliability" improvements to existing bus service without excluding the potential for longer-term implementation of High Capacity Transit options. The project will also consider an improved ROW profile to best accommodate the corridor's multi-modal demands, along with the recommendations reflected in each of the City's adopted modal transportation plans and the respective neighborhood plans.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Real Estate Excise Tax II	350	0	0	0	0	0	0	0	350
Street Vacations -CRSU	650	0	0	0	0	0	0	0	650
Transportation Funding Package - Parking Tax	203	497	0	0	0	0	0	0	700
Transportation Move Seattle Levy - Lid Lift	405	595	2,856	1,527	2,417	200	0	0	8,000
To be determined	0	0	0	5,662	18,141	500	0	0	24,303
Total:	1,608	1,092	2,856	7,189	20,558	700	0	0	34,003

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Cumulative Reserve Subfund - Real Estate Excise Tax II Subaccount	350	0	0	0	0	0	0	0	350
Cumulative Reserve Subfund - Unrestricted Subaccount	650	0	0	0	0	0	0	0	650
Transportation Operating Fund	608	1,092	2,856	1,527	2,417	200	0	0	8,700
To Be Determined	0	0	0	5,662	18,141	500	0	0	24,303
Total:	1,608	1,092	2,856	7,189	20,558	700	0	0	34,003

** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Cumulative Reserve Subfund - Real Estate Excise Tax II Subaccount	350	0	0	0	0	0	0	0	350
Cumulative Reserve Subfund - Unrestricted Subaccount	650	0	0	0	0	0	0	0	650
Transportation Operating Fund	608	799	2,348	1,527	2,417	1,000	0	0	8,700
To Be Determined	0	0	0	5,662	18,141	500	0	0	24,303
Total:	1,608	799	2,348	7,189	20,558	1,500	0	0	34,003

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

Seattle Department of Transportation

Route 40 Northgate to Downtown Transit Improvements

Project Type:	Discrete	**Project No.:**	TC367820
Start/End Date:	2016-2023	**BCL/Program Code:**	19003
Project Category:	Improved Facility	**BCL/Program Name:**	Mobility-Capital
Current Project Stage:	Pre-Project Development	**Location:**	Various
Neighborhood District:	Multiple	**Council District:**	Multiple
Total Project Cost:	$38,000	**Urban Village:**	Multiple

This project will design and construct transit speed and reliability improvements and upgraded bus stop passenger facilities. Improvements to the route, which connects Downtown, South Lake Union, Fremont, Ballard, and Northgate, will support conversion to RapidRide service by partner agency King County Metro.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
Transportation Move Seattle Levy - Lid Lift	0	0	0	575	2,163	3,722	3,040	0	9,500
To be determined	0	0	0	0	0	0	12,730	15,770	28,500
Total:	0	0	0	575	2,163	3,722	15,770	15,770	38,000

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
Transportation Operating Fund	0	0	0	575	2,163	3,722	3,040	0	9,500
To Be Determined	0	0	0	0	0	0	12,730	15,770	28,500
Total:	0	0	0	575	2,163	3,722	15,770	15,770	38,000

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
Transportation Operating Fund	0	0	0	575	2,163	3,722	3,040	0	9,500
To Be Determined	0	0	0	0	0	0	12,730	15,770	28,500
Total:	0	0	0	575	2,163	3,722	15,770	15,770	38,000

			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

** Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

EXHIBIT C

FIGURE 3-4 PRIORITY TRANSIT CORRIDORS FOR CAPITAL INVESTMENTS

HIGH CAPACITY TRANSIT CORRIDORS

Surface High Capacity Transit in Seattle

The Revised Code of Washington defines "high capacity transit" as follows:

> *"High capacity transportation system" means a system of public transportation services within an urbanized region operating principally on exclusive rights-of-way, and the supporting services and facilities necessary to implement such a system, including interim express services and high occupancy vehicle lanes, which taken as a whole, provides a substantially higher level of passenger capacity, speed, and service frequency than traditional public transportation systems operating principally in general purpose roadways.*

This definition was developed to govern the actions of agencies like Sound Transit, charged with developing regional transit systems designed to carry passengers between large urban centers. In these cases, a focus on the separation of transit from general purpose vehicles is of critical importance. In a dense urban city like Seattle, high capacity transit is needed in many corridors in addition to grade separated fixed-guideway service. Inevitably, these surface high-capacity lines will mix with general purpose traffic at times. However, there is much that can be done to provide high capacity transit features in an urban arterial street environment.

Seattle's surface HCT corridors use principles of HCT transit design to move high-volumes of passengers at competitive speeds, with high levels of reliability, and while delivering amenities and services expected when using a rail line.

For Seattle, surface HCT consists of both rail and rubber-tired transit modes that can provide residents with high-quality transit service, consistent with the design principles and FTN service levels (see Chapter 4). The HCT corridors identified in the TMP fill a key service need between Link light rail and local bus service. Seattle's surface HCT will be distinguished by the following factors:

- Provides locally-focused service for transit markets within the city of Seattle and surrounding areas. Link light rail focuses on regional connectivity and longer-distance trips; by design, it is more of an intercity commuter rail model of transit operation than an urban light rail service.
- Operates primarily on arterial streets using a combination of exclusive and shared right-of-way. Link light rail uses exclusive right-of-way with full or partial grade separation. The Center City Connector streetcar project will use dedicated transit lanes on 1st Avenue in downtown, but mix with traffic on other segments of the line.
- The Seattle HCT network aims to dedicate 50% of corridor right-of-way to transit in order to provide fast and reliable transit service and qualify BRT projects for FTA Small Starts funding.

DIFFERENTIATING LINK LIGHT RAIL FROM SEATTLE HCT

Much of the existing and planned Sound Transit Link light rail system has attributes of a rapid rail system (e.g., fully exclusive and grade-separated right of way and off-board fare payment), providing fast regional connections with limited stops. The segment of Central Link in Southeast Seattle that operates on MLK Jr Way is a notable exception since it operates in the street right-of-way and crosses intersections at grade, yet even here stop spacing is wide. The Link service design model compares to BART in the San Francisco Bay Area or SkyTrain in Vancouver, B.C. Light rail systems in places like Portland and San Diego share some similar features to Link, but operate on-street (both in mixed traffic and exclusive lanes) in the most urban areas of their service areas. The HCT or urban rail modes evaluated in the TMP would use a similar model, operating in existing street rights-of-way, with longer stop spacing, and a mix of priority treatments to gain advantage over traffic.

The San Diego Trolley (photo) and Portland MAX system operate on-street in the most urban parts of their service areas.

Image from Nelson\Nygaard

SURFACE HIGH CAPACITY TRANSIT MODES

Seattle's surface HCT corridors have the potential to be served by multiple modes. However, steep topography or constrained rights-of-way limit the available mode options for some corridors. The TMP considers surface HCT modes, plus an enhanced bus service, for developing transit corridors in Seattle:

- **Rapid Streetcar** uses standard modern streetcar vehicles or longer articulated or coupled street-running vehicles and is envisioned to operate like the European street tram systems described in the call out on pages 3-10 and 3-11. Rapid streetcar achieves faster operating speed and greater reliability through longer spacing between stops and more extensive use of exclusive right-of-way than is typical of U.S. streetcar lines that emphasize Center City circulation. Rapid streetcar stations would be on-street and would be designed to include high volume shelters, real-time passenger information, level boarding, off-board fare payment, and enhanced station amenities. Rapid streetcar would have higher capacity trains, greater priority over traffic, and operate at higher speeds compared with a local streetcar circulator, such as the initial implementation of the South Lake Union streetcar. Current SDOT plans for the Center City Connector and transit lane improvements on Westlake will begin to transition Seattle Streetcar from a primarily mixed-traffic system to one that has significant priority over general purpose traffic.

A NEW GENERATION OF RAPIDRIDE BUS RAPID TRANSIT IN SEATTLE

Bus Rapid Transit (BRT) is an enhanced, rail-like transit service that employs strategies aimed at improving transit travel speed, reliability, passenger comfort, and transit identity over traditional fixed-route bus service, including dedicated runningways, intersection priority features, enhanced stations, specialized vehicles, frequent transit service, off-board fare collection systems, and distinctly stylized branding.

BRT systems throughout North America employ a broad spectrum of these strategies based on available resources, corridor constraints, and desired benefits.

BRT systems are commonly differentiated by the range of strategies employed, falling into one of three primary categories: Full BRT, BRT "Light" and Enhanced Bus. Full BRT employs many or all of the enhanced characteristics, most notably an exclusive runningway, while BRT "Light" is typically less capital intensive, applying only targeted strategies like branding, vehicle and station upgrades, and some intersection treatments. The City intends to build on King County Metro's bus rapid transit program.

FIGURE 3-5 RAPIDRIDE BUS RAPID TRANSIT NETWORK

BRT is often considered successful when the following conditions are in place:

- **Transit supportive land use and high ridership demand:** Like other HCT modes, dense and mixed-use development with a diversity of local and regional destinations support BRT activity. Typically, dense, walkable neighborhoods are the most transit supportive.
- **Branding and marketing plan:** Coordinated branding and visibility programs market BRT service and all of its physical elements (vehicles, stations, signage etc.) as specialized service, separate from other local fixed route bus service.
- **Multimodal access:** High quality access to BRT is provided for all modes of travel including seamless transit connections between BRT and other transit services, convenient and safe bicycle and pedestrian paths and amenities.
- **Competitive with automobile travel:** Investments in transit speed and reliability ensure that BRT vehicles can bypass congested roadways and intersections while also directly accessing desired destinations.

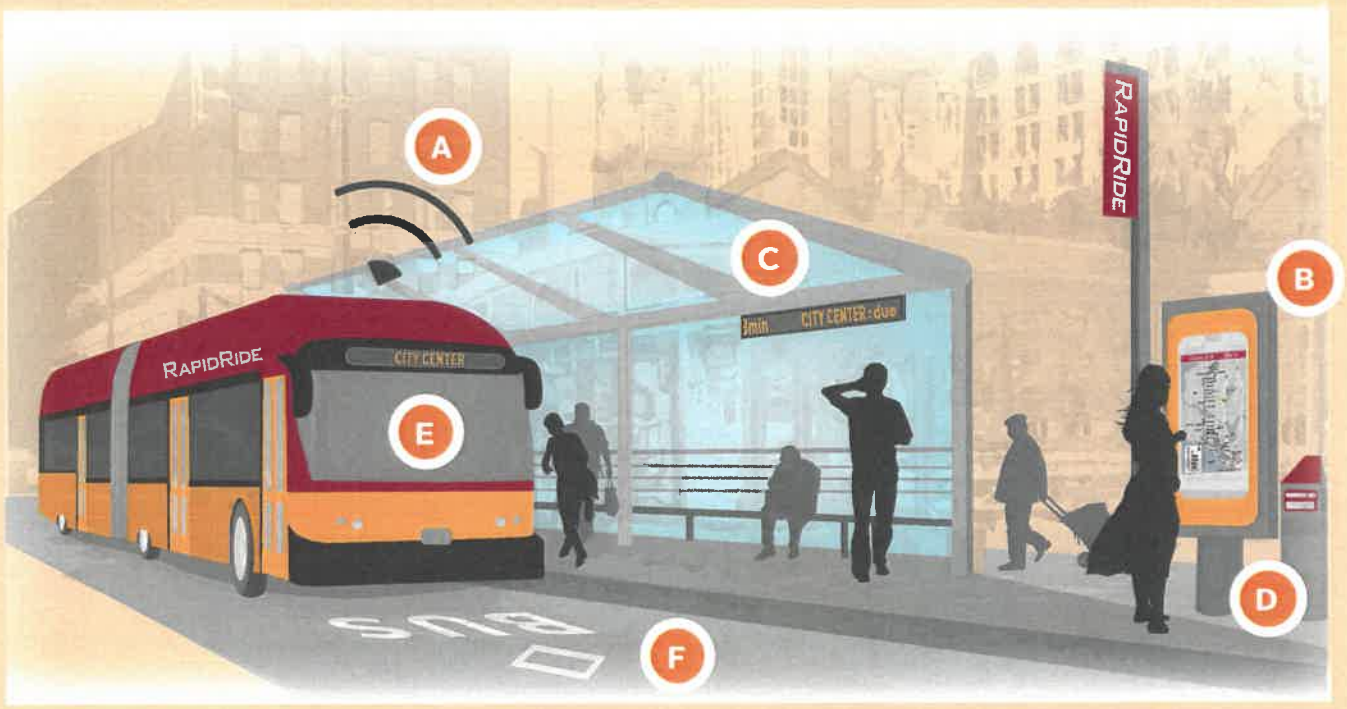
EmX in Eugene, OR operates along a dedicated center running transitway.

Source: Lane Transit District

Cleveland HealthLine along the bustling Euclid corridor serves as a critical mobility option and economic development tool.

Source: Nelson\Nygaard

ELEMENTS OF RAPIDRIDE BUS RAPID TRANSIT



A TRANSIT SIGNAL PRIORITY

Intersection improvements including transit signal priority (TSP) allow buses to bypass congestion. TSP does so by giving buses earlier and/or longer green lights.

B RAPIDRIDE BRANDING

Unique designs make buses and stations more visible, raising awareness of RapidRide and increasing customer expectations for higher levels of service.

C ENHANCED STATIONS

RapidRide stations include raised platforms, off-board fare payment, real-time arrival information, larger shelters, and other passenger amenities.

D ENHANCED FARE COLLECTION SYSTEMS

Off-board fare collection using ticket vending machines, card readers, and other tools at stations allow passengers to load without waiting in line to pay their fares.

E SPECIALIZED VEHICLES

Custom buses provide more capacity, more doors, and lower floors for easier loading and unloading, and unique designs.

F DEDICATED RUNNING WAY

Bus-only lanes separate transit from traffic and are clearly marked to increase visibility.

PRIORITIZING TRANSIT

Dedicated runningway investments are a primary feature that distinguish RapidRide from other enhanced bus services. RapidRide service can operate in two basic types of dedicated runningway environments, providing vehicles priority over general purpose traffic: (1) transit only lanes and (2) business access transit (BAT) lanes. BAT lanes can be designed as curb lanes (i.e., running against the curb) or offset lanes (allowing on-street parking stalls with dwelling occurring via bus bulbouts). Dedicated and clearly delineated transit lanes reduce conflicts between autos and buses and reduce transit delay for RapidRide and other transit services that use the RapidRide corridor. BAT lanes allow for business, loading zone, and parking garage access as well as right turn lane queuing.

Surface treatments and markings in the transit lane help to prevent general purpose traffic from entering the lane illegally, minimize illegal parking and loading, and distinguish the high level of service provided by RapidRide. Red paint markings for transit only lanes, dashed red lane markings along BAT lanes, and other special markings such as double white stripes and "Don't block the box" markings both distinguish and delineate the RapidRide runningway from general purpose travel lanes. Red lane treatments also give RapidRide and other bus services a greater level of visibility, acting as wayfinding for high-quality bus service and communicating speed and reliability benefits.

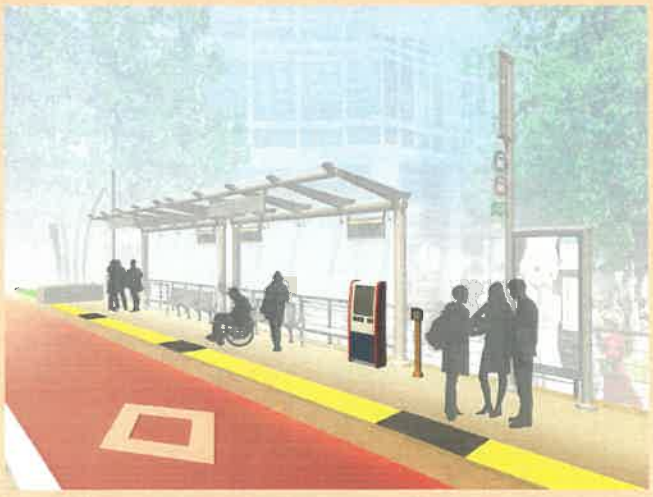
Dedicated red transit lanes are visible reminders of the speed, reliability, and level of priority that is expected of RapidRide corridors.

Source: SDOT

REDEFINING THE PASSENGER EXPERIENCE

RapidRide station and vehicle amenities are designed to optimize the passenger experience. Seattle's RapidRide stations are distinguished by providing a full suite of station features a customer would expect at a light rail or rapid transit station – from comfortable seating to weather protection to real-time information, so that passengers know exactly when the next bus will arrive. Each RapidRide station offers a base level of passenger amenity including benches, glass canopy shelters, RapidRide standalone marker/pylon, technology pylon (with real time information and system maps), off-board fare collection, pedestrian LED lighting, trash and recycling bins, and bike parking.

RapidRide offers several other features that both enhance the passenger experience and provide travel time savings for transit. All-door boarding and off-board fare payment improve the customer experience by reducing wait times to board, better distributing on-board loads, and reducing dwell time. Ticket vending machines allow patrons without ORCA cards or e-fare options to purchase tickets before boarding. Platform level boarding is an important way to reduce boarding time and keep buses running on schedule; enhance the transit experience for people using wheelchairs, scooters or mobility devices; and increase system accessibility, safety, and comfort. Level-boarding also eliminates the need for ramp deployment for people with strollers, mobility devices, or other wheeled devices.



RapidRide stations provide the comfort and amenities that one would expect at a Link or streetcar station.

Source: Nelson\Nygaard

RapidRide Corridor 5

Ballard – U-District – Laurelhurst via Market Street and 45th Street

Key Characteristics

Length: 6.27 miles

Major Stations: Market Street/24th Avenue, Market Street/15th Avenue, 45th Street/Walingford Avenue, 45th Street/Roosevelt Way, Brooklyn Avenue/U-District Link Station, Sand Point Way/40th Avenue

Average Stop Spacing: 0.39 miles

Key Connections

- Market Street/24th Avenue (RapidRide Corridor 6 connection)
- Market Street/15th Avenue (E Line connection)
- 46th Street/Aurora Avenue (D Line connection)
- I-5 at NE 45th Street Freeway Station
- 45th Street/Roosevelt Way (RapidRide Corridor 7 connection)
- Brooklyn Avenue (Connection to U-District Link Station and RapidRide Corridor 4)

Permitted Development:

Office Commercial: 823,258 sf
Retail: 445,160 sf
Residential: 3,703 units

Service Design

Alignment Alternatives: Potential routing through University of Washington via E Stevens Way
Potential for Dual-Sided Vehicles: No

RapidRide Scorecard

CRITERION	SCORING METRIC	SCORE
The Elements		
Dedicated Runningway (all-day)	% of corridor	71%
Bus Lane Alignment (limited transitions)	Yes/No	Yes
Intersection Treatments	% of signalized intersections have transit priority treatments	84%
The Network		
Intermodal Connections	# of connections to Link, RapidRide, Ferry, streetcar, and local/regional bus	Link: 1 RapidRide: 5 Local/regional bus: 11
Stop Spacing	Average stop spacing	0.39 miles
The Stations		
Full-Feature Stations	# of stations being upgraded to full featured stations	31
The Connections		
Move Seattle Walking and Biking Improvements	# of Move Seattle pedestrian/bicycle projects in corridor	14

LEGEND

HCT Corridors
- Corridor Alignment
- Alternative Alignment
- ST Link Light Rail / Stations
- Existing RapidRide Routes
- Seattle Streetcar / Stations

Potential Improvements
- Bus Bulbs
- Transit Signal Priority
- Upgrade to Full Station
- Floating Bus Stop
- Queue Jump Lanes *(both directions, unless noted)*
- Layover Location *(requires study)*

Potential Right-of-way Treatments Pending Detailed Feasibility Analysis
- Transit Only Lane
- BAT Lane
- Peak BAT Lane
- Mixed Traffic

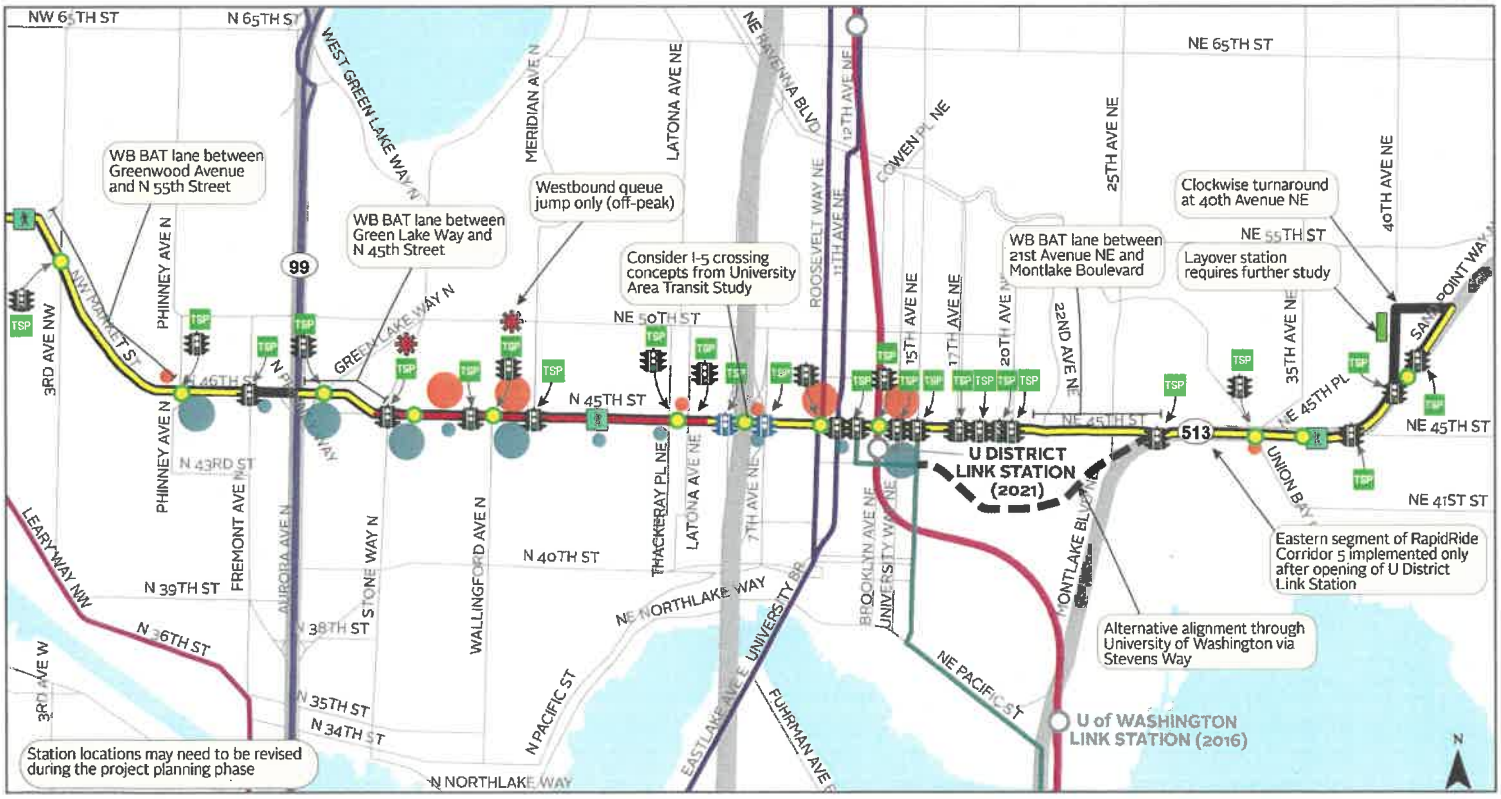
Future RapidRide Corridors
- Corridor 1: Madison
- Corridor 2: Delridge
- Corridor 3: Jackson/Rainier
- Corridor 4: 23rd/Rainier
- Corridor 5: Market/45th
- Corridor 6: Westlake - Ballard - Northgate
- Corridor 7: Roosevelt

Existing Daily Boardings at High Ridership Stops
- 100 - 200
- 201 or more
- Inbound
- Outbound

Existing Signals
- SDOT Full Signal
- WSDOT Signal
- Half Signal
- Mid-Block Cross Walk

RapidRide Corridor 5:
Major updates to corridor capital project elements compared to the 2012 Transit Master Plan

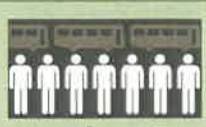
- This corridor was labeled Priority Bus Corridor 13 in the 2012 Transit Master Plan
- Segment of the corridor between 30th Avenue NW and 42nd Avenue NE: 2015 TMP recommends consideration of peak and all-day BAT lanes where feasible.
- Projects resulting from 2014-2015 SDOT NW Market/45th Street Project analysis and design are include in 2015 TMP. These improvements included transit speed and reliability enhancements and pedestrian improvements.



Recommended RapidRide corridor improvements are conceptual in nature and will require future public outreach, technical analysis, and detailed design work.

RapidRide Corridor 5

Ballard – U-District – Laurelhurst via Market Street and 45th St

Metric	Score	Details
 **Ridership** *(Weekday riders [2035] and Net New Riders)*	**16,200** **(6,900 net new riders)**	**Ridership potential in 2035 is based on service improvements and projected land use changes:** Weekday riders (2035) estimated from Spring 2015 stop/route-level boardings assigned to each corridor. Net new weekday riders equal 2030 estimate of potential ridership minus current (2015) ridership estimate for the corridor.
 **Productivity**	**81 riders/hour**	**Efficiency with which provided transit capacity is utilized. Productivity equals weekday ridership divided by weekday revenue hours:** A "revenue hour" includes time when a transit vehicle is available to carry passengers. It includes layover time, but excludes "deadhead" time such as when a bus travels to the start of a route. Weekday hours of revenue service calculated through development of corridor-specific operating plan.
 **RapidRide Initial Investment Level**	**$30.0-$37.0M** **($4.8-$5.9M per mile)**	**Expected level of initial investment required to provide transit speed, reliability, passenger comfort, and access improvements in the corridor.** Based on initial planning level assessment conducted as part of the 2015 TMP update. Future analysis will identify the most cost-effective capital project elements and levels of investment appropriate to different right-of-way configurations and land use environments along the corridor. Higher level of investment may be possible based on potential additional local, regional, state and federal funding identified during detailed corridor planning and design process. Vehicle costs not included.
 **Cost/Rider**	**$2.80**	**Value of investment over time, including cost of operation and annualized cost of capital investment, fleet replacement, and maintenance:** Annualized operating and capital cost per rider equals annual operating cost plus annualized capital costs divided by annual boarding rides. Operating cost adjusted for inflation by 2.4% annually. Infrastructure life held constant. Assumed vehicle life is 15 years for electric trolley bus.
 **O&M Cost**	**$13.6M**	**Annual total cost to deliver service on the proposed line.** Annual operating cost based on the number of hours of revenue service, calculated through development of corridor-specific operating plan, multiplied by the 2015 operating cost for RapidRide. The 2015 operating costs are based on King County Metro operating cost factors and assumptions from the Madison Corridor BRT Study. Does not include cost reductions from repurposing of existing bus service hours.
 **Operating Cost/ New Ride**	**$2.57**	**Operating cost to deliver a new boarding ride considering potential cost savings:** Calculated as planned weekday operating cost minus weekday operating cost savings, divided by the number of net new boarding rides projected for 2035. Analysis of cost savings is conceptual.
 **Travel Time Savings**	**19%**	**In-vehicle travel time savings (compared to current service) for a passenger riding between two terminus stations:** Projected 2035 corridor travel time with current road design - estimated travel times under each mode, alignment, and design.
 **GhG Savings**	**1,122 MT CO2e**	**Annual reduction in greenhouse gas emission equivalents from reduced vehicle miles traveled and net change in transit emissions:** Emissions savings from reduced VMT based on an assumed rate of displaced light duty vehicle trips per new transit rider, average trip length by corridor, average fuel economy, and resulting fuel savings. Emissions savings from net change in transit emissions equals planned service minus existing service (based on conceptual operating plans). Emissions factors applied based on known emission assumptions for electric trolley bus and diesel hybrid bus.

Note: All costs are in 2015 dollars.

IMPLEMENTATION STRATEGIES

- **Strategy RR 5.1:** Explore additional eastern route terminus routing and layover options in the vicinity of Sand Point Way.
- **Strategy RR 5.2:** Evaluate feasibility of Business Access and Transit (BAT) lanes east of I-5.
- **Strategy RR 5.3:** Integrate spot improvements west of I-5 as recommended by Route 44 Enhancements Study.
- **Strategy RR 5.4:** Build off success of SDOT spot improvements constructed as part of the NW Market/NE 45th Street Transit Priority Corridor Improvement Project and continue to implement public realm elements of the project.
- **Strategy RR 5.5:** Work with corridor business stakeholders to evaluate tradeoffs between transit speed and reliability and on-street parking needs.
- **Strategy RR 5.6:** As a primary east-west route, ensure seamless connections to north/south RapidRide routes and future U-District Link Station.
- **Strategy RR 5.7:** Evaluate sidewalk width in station areas for potential right-of-way needs for ADA-compliant station design.
- **Strategy RR 5.8:** Engage King County Metro to evaluate a route extension east to Sand Point Way/NE 50th Street.
- **Strategy RR 5.9:** Coordinate with King County Metro and the University of Washington to evaluate potential campus routing options.

MULTIMODAL PROJECT COORDINATION

- **Strategy MMC 5.1:** Coordinate with WSDOT on Market Street/I-5 crossing improvements and access control that will enhance transit and non-motorized trips.
- **Strategy MMC 5.2:** Coordinate with Sand Point Way Safety Corridor project to integrate and optimize RapidRide operations and facility design with approved roadway safety improvements between Montlake Boulevard NE and 50th Street NE.
- **Strategy MMC 5.3:** Develop a street concept plan for the Sand Point Way, 45th Street, 46th Street, and Market Street corridor, considering previous work on the NW Market/NE 45th Street Transit Priority Corridor Improvement and Sand Point Way Safety Corridor projects.
- **Strategy MMC 5.4:** Ensure 46th Street and 17th Avenue neighborhood greenway connections provide safe access across the corridor and to proposed RapidRide stations.
- **Strategy MMC 5.5:** Provide clear wayfinding to direct people walking and biking to RapidRide stations.
- **Strategy MMC 5.6:** Identify overlap and coordinate with Pedestrian Master Plan improvement projects along each corridor that have shared design elements with RapidRide such as enhanced intersection crossings, curb bulbs, and improved sidewalks.

RapidRide Corridor 6

Northgate - Ballard - Fremont - South Lake Union – Downtown, via Westlake Avenue

Key Characteristics

Length: 13.15 miles

Major Stations: Jackson, 3rd Avenue stations, Westlake Avenue stations, Fremont Avenue/34th Street, Market Street/15th Avenue, Market Street/24th Avenue, Holman Road/15th Avenue, Northgate Link Station/Transit Center

Average Stop Spacing: 0.41 miles

Key Connections

- Downtown Seattle Transit Tunnel
- 3rd Avenue Transit Spine
- Seattle Streetcar at Jackson Street and Westlake Avenue
- Leary Avenue/15th Avenue (D Line connection)
- Market Street/24th Avenue (RapidRide Corridor 5 connection)
- 105th Street/Aurora Avenue (E Line Connection)
- Northgate Link Station/Transit Center

Permitted Development:

Office Commercial: 9,558,738 sf
Retail: 1,456,012 sf
Residential: 16,997 units

Service Design

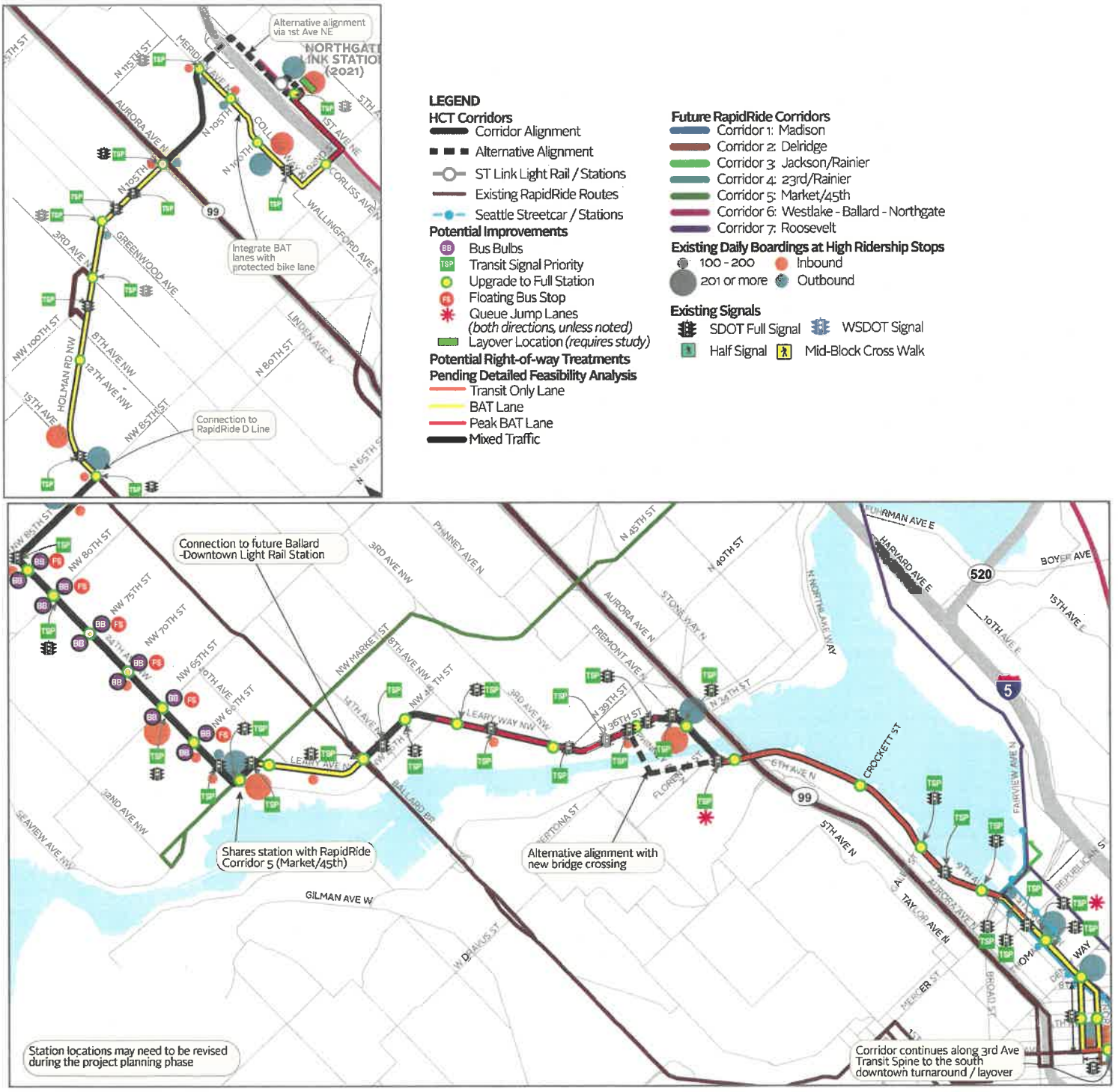
Alignment Alternatives: Potential new bridge connection across the Ship Canal, immediately to the west of the Ballard Bridge
Potential for Dual-Sided Vehicles: No

RapidRide Scorecard

CRITERION	SCORING METRIC	SCORE
The Elements		
Dedicated Runningway (all-day)	*% of corridor*	41%
Bus Lane Alignment (limited transitions)	*Yes/No*	Yes
Intersection Treatments	*% of signalized intersections have transit priority treatments*	55%
The Network		
Intermodal Connections	*# of connections to Link, RapidRide, Ferry, streetcar, and local/regional bus*	Link: **5** RapidRide: **9** Streetcar: **2** Local/regional bus: **11**
Stop Spacing	*Average stop spacing*	0.41 miles
The Stations		
Full-Feature Stations	*# of stations being upgraded to full featured stations*	55
The Connections		
Move Seattle Walking and Biking Improvements	*# of Move Seattle pedestrian/ bicycle projects in corridor*	26

RapidRide Corridor 6: Major updates to corridor capital project elements compared to the 2012 Transit Master Plan

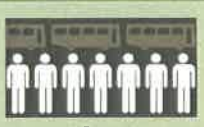
- This corridor was labeled HCT Corridor 11 (Ballard – Fremont – Downtown) and a portion of Priority Bus Corridor 10 (Holman Road) in the 2012 Transit Master Plan
- The 2012 TMP recommended Rapid Streetcar as the preferred mode for this corridor; the 2015 TMP recommends RapidRide for this corridor.
- This corridor introduces a new segment along 24th Avenue NW between NW Market Street and N 85th Street. No dedicated transit lanes are called for in this segment; floating bus islands are recommended for consideration.
- Segment of the corridor on Holman Road between 15th Avenue NW and Aurora Avenue N recommended for consideration of BAT lanes.
- Segment of College Way between Northgate Way and N 92nd Avenue recommended for consideration of BAT lanes pending further analysis of right-of-way constraints and bicycle facility priorities.
- For the segments of the corridor between Ballard and South Lake Union, recommendations for right-of-way reallocation to transit lanes are similar to the 2012 TMP despite the change in recommended mode from rapid streetcar to RapidRide.



Recommended RapidRide corridor improvements are conceptual in nature and will require future public outreach, technical analysis, and detailed design work.

RapidRide Corridor 6

Northgate - Ballard - Fremont - South Lake Union – Downtown, via Westlake Avenue

Metric	Score	Details
 **Ridership** *(Weekday riders [2035] and Net New Riders)*	**24,400** **(9,000 net new riders)**	**Ridership potential in 2035 is based on service improvements and projected land use changes:** Weekday riders (2035) estimated from Spring 2015 stop/route-level boardings assigned to each corridor. Net new weekday riders equal 2030 estimate of potential ridership minus current (2015) ridership estimate for the corridor.
 **Productivity**	**71 riders/hour**	**Efficiency with which provided transit capacity is utilized. Productivity equals weekday ridership divided by weekday revenue hours:** A "revenue hour" includes time when a transit vehicle is available to carry passengers. It includes layover time, but excludes "deadhead" time such as when a bus travels to the start of a route. Weekday hours of revenue service calculated through development of corridor-specific operating plan.
 **RapidRide Initial Investment Level**	**$31.0-$38.0M** **($2.4-$2.9M per mile)**	**Expected level of initial investment required to provide transit speed, reliability, passenger comfort, and access improvements in the corridor.** Based on initial planning level assessment conducted as part of the 2015 TMP update. Future analysis will identify the most cost-effective capital project elements and levels of investment appropriate to different right-of-way configurations and land use environments along the corridor. Higher level of investment may be possible based on potential additional local, regional, state and federal funding identified during detailed corridor planning and design process. Vehicle costs no included.
 **Cost/Rider**	**$3.25**	**Value of investment over time, including cost of operation and annualized cost of capital investment, fleet replacement, and maintenance:** Annualized operating and capital cost per rider equals annual operating cost plus annualized capital costs divided by annual boarding rides. Operating cost adjusted for inflation by 2.4% annually. Infrastructure life held constant. Assumed vehicle life is 12 years for diesel hybrid bus.
 **O&M Cost**	**$24.2M**	**Annual total cost to deliver service on the proposed line.** Annual operating cost based on the number of hours of revenue service, calculated through development of corridor-specific operating plan, multiplied by the 2015 operating cost for RapidRide. The 2015 operating costs are based on King County Metro operating cost factors and assumptions from the Madison Corridor BRT Study. Does not include cost reductions from repurposing of existing bus service hours.
 **Operating Cost/ New Ride**	**$3.06**	**Operating cost to deliver a new boarding ride considering potential cost savings:** Calculated as planned weekday operating cost minus weekday operating cost savings, divided by the number of net new boarding rides projected for 2035. Analysis of cost savings is conceptual.
 **Travel Time Savings**	**17%**	**In-vehicle travel time savings (compared to current service) for a passenger riding between two terminus stations:** Projected 2035 corridor travel time with current road design - estimated travel times under each mode, alignment, and design.
 **GhG Savings**	**2,906 MT CO2e**	**Annual reduction in greenhouse gas emission equivalents from reduced vehicle miles traveled and net change in transit emissions:** Emissions savings from reduced VMT based on an assumed rate of displaced light duty vehicle trips per new transit rider, average trip length by corridor, average fuel economy, and resulting fuel savings. Emissions savings from net change in transit emissions equals planned service minus existing service (based on conceptual operating plans). Emissions factors applied based on known emission assumptions for electric trolley bus and diesel hybrid bus.

Note: All costs are in 2015 dollars.

IMPLEMENTATION STRATEGIES

- **Strategy RR 6.1:** Evaluate South Lake Union operations on Westlake, particularly transit lane capacity to accommodate Seattle Streetcar, RapidRide C Line, proposed RapidRide Corridor 2 (current Route 120) and this route. This service should take priority over the Delridge extension to South Lake Union.
- **Strategy RR 6.2:** Study in detail options for crossing the Ship Canal, which could include various design and operational alternatives for use of the existing Fremont Bridge (likely first phase), rebuilding the existing Fremont Bridge to accommodate all modes, and the development of a new multimodal high-bridge to cross the Ship Canal (in the vicinity of 3rd Avenue W).
- **Strategy RR 6.3:** Evaluate options for jointly improving freight/transit operations on major truck streets corresponding to proposed RapidRide route alignment (Westlake Avenue N, N 36th Street, Leary Way NW, Holman Road NW, N 105th Street, and N Northgate Way).
- **Strategy RR 6.4:** Evaluate feasible routing options for crossing I-5 and optimal access to the Northgate Transit Center.
- **Strategy RR 6.5:** Consider phasing of transit priority treatments on a segment-by-segment approach based on right-of-way characteristics, traffic patterns, and ridership demand.
- **Strategy RR 6.6:** Evaluate feasibility of South Lake Union operations on Westlake, particularly transit lane capacity to accommodate Seattle Streetcar, Rapid Ride C-Line, RapidRide Corridor 2 (Burien TC – South Lake Union, via Delridge Way), and this line.

MULTIMODAL PROJECT COORDINATION

- **Strategy MMC 6.1:** Coordinate design of priority bus treatments on 1st Avenue NE with protected bicycle lane proposed between NE 92nd Street to Northgate Way.
- **Strategy MMC 6.2:** Coordinate design options along Westlake Avenue with the Westlake Cycle Track project.
- **Strategy MMC 6.3:** Evaluate options for a new multimodal bridge crossing of the Ship Canal east of the Fremont Bridge. A new bridge would ensure transit reliability but could also provide needed crossing options for pedestrians and people on bicycles.
- **Strategy MMC 6.4:** Ensure compatibility between existing protected bicycle lane and transit-only lane on Nickerson Street (as part of a new high bridge crossing).
- **Strategy MMC 6.5:** Optimize transfer and pedestrian experience at the junction of RapidRide Corridors 5 and 6 in the Ballard Hub Urban Village area.
- **Strategy MMC 6.6:** Coordinate with the Move Ballard study to integrate the multimodal transportation plan recommendations and access improvements into effective route and station design options in the Ballard Hub Urban Village.
- **Strategy MMC 6.7:** Develop a street concept plan for all streets in RapidRide Corridor 6.
- **Strategy MMC 6.8:** Ensure 100th, 90th, and 83rd Street neighborhood greenway connections provide safe access across the corridor and to proposed RapidRide stations.
- **Strategy MMC 6.9:** Provide clear wayfinding to direct people walking and biking to RapidRide stations.
- **Strategy MMC 6.10:** Identify overlap and coordinate with Pedestrian Master Plan improvement projects along each corridor that have shared design elements with RapidRide such as enhanced intersection crossings, curb bulbs, and improved sidewalks.
- **Strategy MMC 6.11:** Pilot a transit and freight only lane on Leary Avenue between 15th Avenue and Fremont Avenue.

RapidRide Corridor 7

Northgate - Roosevelt - University District - South Lake Union - Downtown, via Roosevelt Way/11th Avenue and Eastlake Avenue

Key Characteristics

Length: 8.74 miles

Major Stations: Northgate Link Station, Roosevelt Way/11th Avenue and 45th Street, Lynn Street, Republican Street, Fairview Avenue stations, 3rd Avenue stations, Jackson Street

Average Stop Spacing: 0.38 miles

Key Connections

- Downtown Seattle Transit Tunnel
- 3rd Avenue Transit Spine
- Seattle Streetcar and RapidRide Corridor 2/3 at Aloha Street
- Roosevelt Way/11th Avenue and 45th Street (RapidRide Corridor 4/5 and U-District Link Station connections)
- Northgate Link Station

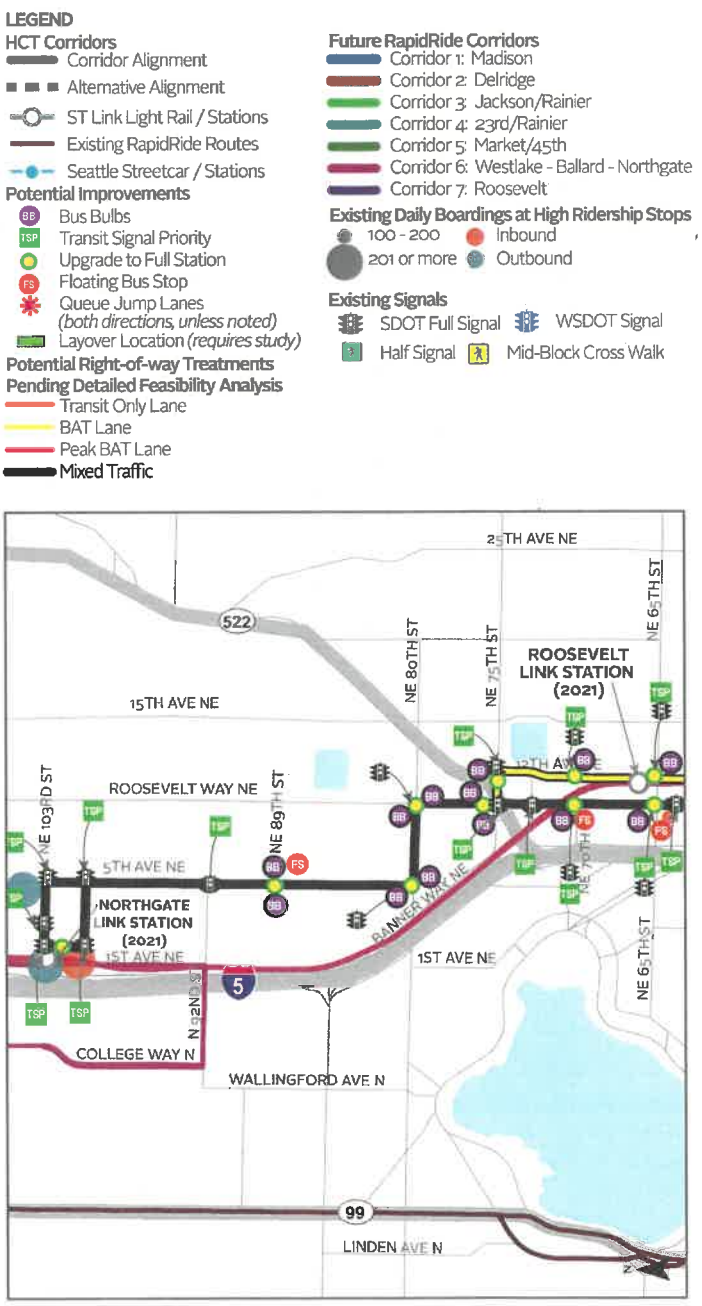
Permitted Development:

Office Commercial: 9,814,304 sf
Retail: 1,529,741 sf
Residential: 21,018 units

Service Design

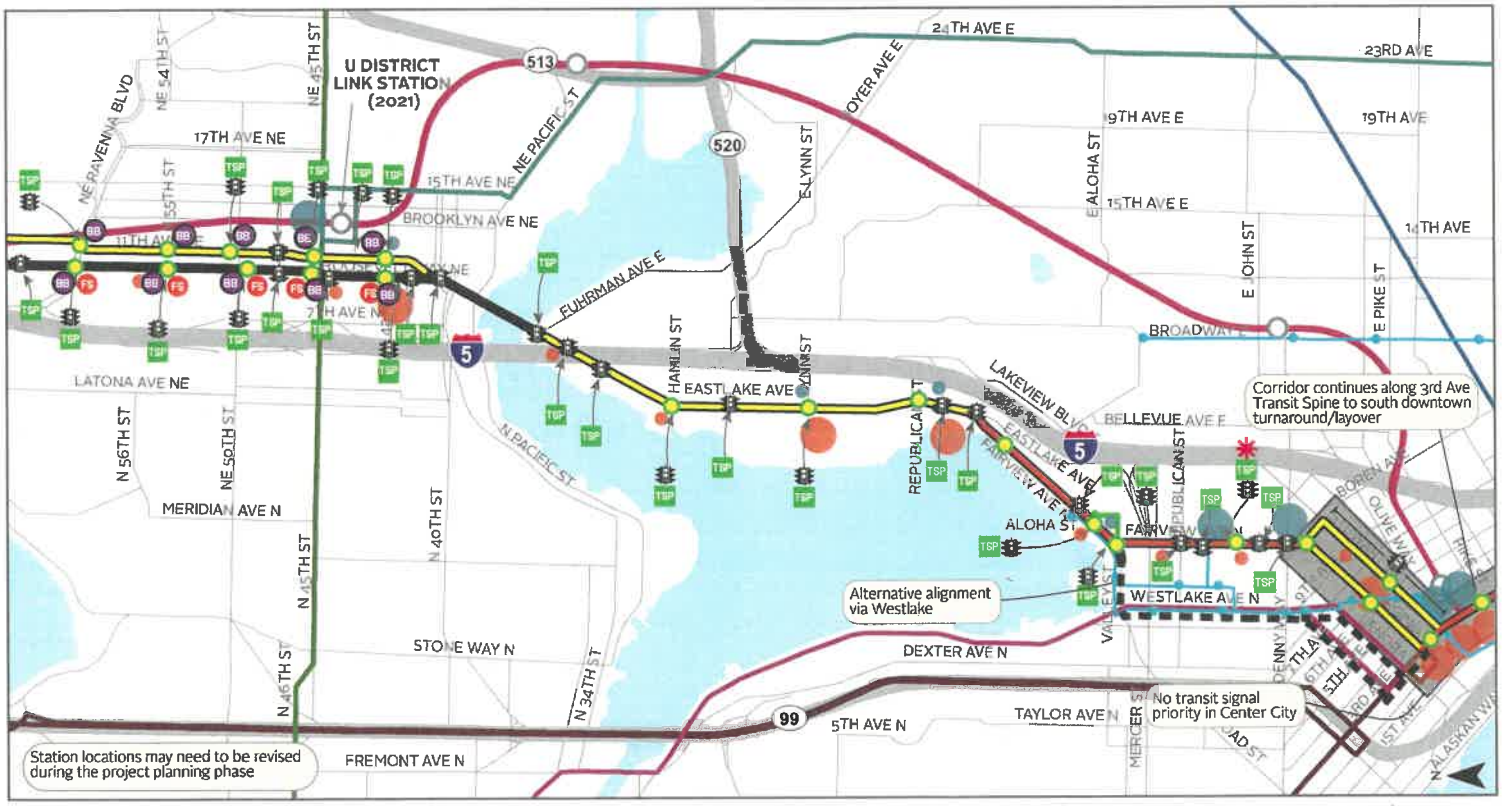
Alignment Alternatives: Access to 3rd Avenue via Westlake and Lenora/Blanchard; Connection to U-District Link Station via Brooklyn Ave
Potential for Dual-Sided Vehicles: Yes

RapidRide Scorecard		
CRITERION	SCORING METRIC	SCORE
The Elements		
Dedicated Runningway (all-day)	% of corridor	49%
Bus Lane Alignment (limited transitions)	Yes/No	Yes
Intersection Treatments	% of signalized intersections have transit priority treatments	63%
The Network		
Intermodal Connections	# of connections to Link, RapidRide, Ferry, streetcar, and local/regional bus	Link: 6 RapidRide: 9 Streetcar: 2 Local/regional bus: 11
Stop Spacing	Average stop spacing	0.38 miles
The Stations		
Full-Feature Stations	# of stations being upgraded to full featured stations	42
The Connections		
Move Seattle Walking and Biking Improvements	# of Move Seattle pedestrian/ bicycle projects in corridor	24



RapidRide Corridor 7:
Major updates to corridor capital project elements compared to the 2012 Transit Master Plan

- This corridor was labeled HCT Corridor 8 in the 2012 Transit Master Plan
- 2012 Transit Master Plan recommended Rapid Streetcar for this corridor.
- For the segments of the corridor between the University District and South Lake Union, recommendations for right-of-way reallocation to transit lanes are similar to the 2012 TMP despite the change in recommended mode.
- The 2015 TMP recommends consideration of BAT lane treatments on Eastlake Avenue and Fairview Avenue south of the University Bridge. The 2012 TMP recommended streetcar operations shared with traffic.
- SDOT is completing a Concept Design study for this corridor in 2017 which will provide more refined recommendations for transit facility design and roadway cross sections.



Recommended RapidRide corridor improvements are conceptual in nature and will require future public outreach, technical analysis, and detailed design work.

RapidRide Corridor 7

Northgate - Roosevelt - University District - South Lake Union - Downtown

Metric	Score	Details
 **Ridership** *(Weekday riders [2035] and Net New Riders)*	**16,000** (9,200 net new riders)	**Ridership potential in 2035 is based on service improvements and projected land use changes:** Weekday riders (2035) estimated from Spring 2015 stop/route-level boardings assigned to each corridor. Net new weekday riders equal 2030 estimate of potential ridership minus current (2015) ridership estimate for the corridor.
 **Productivity**	**53 riders/hour**	**Efficiency with which provided transit capacity is utilized. Productivity equals weekday ridership divided by weekday revenue hours:** A "revenue hour" includes time when a transit vehicle is available to carry passengers. It includes layover time, but excludes "deadhead" time such as when a bus travels to the start of a route. Weekday hours of revenue service calculated through development of corridor-specific operating plan.
 **RapidRide Initial Investment Level**	**$28.0-$34.0M** ($3.2-$3.9M per mile)	**Expected level of initial investment required to provide transit speed, reliability, passenger comfort, and access improvements in the corridor.** Based on initial planning level assessment conducted as part of the 2015 TMP update. Future analysis will identify the most cost-effective capital project elements and levels of investment appropriate to different right-of-way configurations and land use environments along the corridor. Higher level of investment may be possible based on potential additional local, regional, state and federal funding identified during detailed corridor planning and design process. Vehicle costs not included.
 **Cost/Rider**	**$4.17**	**Value of investment over time, including cost of operation and annualized cost of capital investment, fleet replacement, and maintenance:** Annualized operating and capital cost per rider equals annual operating cost plus annualized capital costs divided by annual boarding rides. Operating cost adjusted for inflation by 2.4% annually. Infrastructure life held constant. Assumed vehicle life is 15 years for electric trolley bus and 12 years for diesel hybrid bus.
 **O&M Cost**	**$20.8M**	**Annual total cost to deliver service on the proposed line.** Annual operating cost based on the number of hours of revenue service, calculated through development of corridor-specific operating plan, multiplied by the 2015 operating cost for RapidRide. The 2015 operating costs are based on King County Metro operating cost factors and assumptions from the Madison Corridor BRT Study.
 **Operating Cost/ New Ride**	**$4.00**	**Operating cost to deliver a new boarding ride considering potential cost savings:** Calculated as planned weekday operating cost minus weekday operating cost savings, divided by the number of net new boarding rides projected for 2035. Analysis of cost savings is conceptual.
 **Travel Time Savings**	**23%**	**In-vehicle travel time savings (compared to current service) for a passenger riding between two terminus stations:** Projected 2035 corridor travel time with current road design - estimated travel times under each mode, alignment, and design.
 **GhG Savings**	**1,957 MT CO2e**	**Annual reduction in greenhouse gas emission equivalents from reduced vehicle miles traveled and net change in transit emissions:** Emissions savings from reduced VMT based on an assumed rate of displaced light duty vehicle trips per new transit rider, average trip length by corridor, average fuel economy, and resulting fuel savings. Emissions savings from net change in transit emissions equals planned service minus existing service (based on conceptual operating plans). Emissions factors applied based on known emission assumptions for electric trolley bus and diesel hybrid bus.

Note: All costs are in 2015 dollars.

IMPLEMENTATION STRATEGIES

- **Strategy RR 7.1:** Evaluate tradeoffs between Fairview and Westlake alignments through Center City and South Lake Union, considering needs for overhead trolley wire and capacity constraints on Westlake Transit lanes created by use of Seattle Streetcar and one existing (RapidRide C Line Extension) and RapidRide Corridors 2 and 6 (current Route 40 and Route 120).
- **Strategy RR 7.2:** Examine feasibility of converting center-running shared streetcar/general purpose lanes on Fairview Avenue to transit-only lanes to allow for shared RapidRide/streetcar operations between Valley Street and Yale Avenue N.
- **Strategy RR 7.3:** Collaborate with King County Metro and Sound Transit to create high-quality connections between the RapidRide route and U-District Link Station on Brooklyn Avenue.
- **Strategy RR 7.4:** Consider phasing of transit priority treatments on a segment-by-segment approach based on right-of-way characteristics, traffic patterns, and ridership demand.
- **Strategy RR 7.5:** Consider routing and operating plan alternatives that connect the U-District to Mt. Baker via downtown.
- **Strategy RR 7.6:** Evaluate sidewalk width in station areas along 5th Avenue NE for potential right-of-way needs for ADA-compliant station design.
- **Strategy RR 7.7:** Engage King County Metro to evaluate a Route 70 extension to Northgate Transit Center for Route 7.

MULTIMODAL PROJECT COORDINATION

- **Strategy MMC 7.1:** Coordinate design of transit priority treatments with ongoing Bicycle Master Plan facility planning on Roosevelt Way between NE 40th Street and NE 65th Street.
- **Strategy MMC 7.2:** Coordinate with Roosevelt Neighborhood Streetscape Concept Plan to leverage complete streets improvements on Roosevelt Way.
- **Strategy MMC 7.3:** Coordinate with University District Urban Design Framework to ensure that transit priority element design is compatible with plan recommended design concepts for several key streets and updated design guidelines.
- **Strategy MMC 7.4:** Coordinate design of priority bus treatments on 1st Avenue NE with protected bicycle lane proposed between NE 92nd Street to Northgate Way.
- **Strategy MMC 7.5:** Provide clear wayfinding to direct people walking and biking to RapidRide stations.
- **Strategy MMC 7.6:** Identify overlap and coordinate with Pedestrian Master Plan improvement projects along each corridor that have shared design elements with RapidRide such as enhanced intersection crossings, curb bulbs, and improved sidewalks.

Fully featured RapidRide stations include shelters, benches, tech pylons with real time information, off-board payment validation, system maps, and branded signage.
Image from King County Metro

SEATTLE RAPIDRIDE IMPROVEMENTS

Between 2010 and 2014 King County Metro Transit rolled out six arterial BRT routes under the RapidRide brand. RapidRide is designed to provide a service backbone in heavily traveled transit corridors, creating transfer opportunities to conventional fixed-route Metro service, paratransit service, Link light rail, Sounder commuter rail, state and local ferries, and ST Express regional bus routes.

Three of the six RapidRide lines operate solely within the City of Seattle:

- **RapidRide C Line:** West Seattle to Downtown Seattle via West Seattle freeway.
  - Fully branded service started in September 2012.
  - Roadway elements include BAT lanes and bus bulbs.
- **RapidRide D Line:** Ballard to Uptown to Downtown Seattle along 15th Avenue NW.
  - Fully branded service started in September 2012.
  - Roadway elements include BAT lanes and bus bulbs.
- **RapidRide E Line:** Shoreline to Downtown Seattle via Aurora Avenue N.
  - Fully branded service started February 2014.
  - Roadway elements include BAT lanes and queue jump lanes.

Throughout the RapidRide system Metro has targeted ½ mile stop spacing to improve operating speeds and balance access needs by providing a faster, more reliable service.

Passenger facility improvements vary along the lines with three levels of station/stop improvements. These range from fully featured stations for locations with 150 or more daily boardings to basic stop improvements that include RapidRide signage, schedule, and basic furniture for low volume locations.

The RapidRide fleet consistent of New Flyer diesel electric hybrid vehicles with three boarding doors, low-floor design, three bike front loading racks, and branded livery.

RapidRide uses a "proof of payment" fare collection system, with random on-board fare inspection. There are 131 off-board ORCA readers; 122 on pylons or poles, and nine on downtown Seattle kiosks.

RapidRide lines C, D, and E use sixty foot articulated coaches with hybrid diesel-electric power.
Image from King County Metro

Improvement to Existing RapidRide Lines

The City of Seattle has supported Metro's RapidRide by making speed and reliability investments in the C, D, and E Line corridors. In 2015, SDOT invested local operating funds raised through Prop 1 (STBD) in additional frequency on busy RapidRide corridors.

As SDOT works with King County Metro Transit to implement new RapidRide lines in Seattle, shorter-term investments in existing corridors are needed and can provide significant benefits to the 35,000 daily passengers traveling in the three corridors.

High priority improvements to existing Seattle RapidRide lines include:

RapidRide C Line Enhancements

RapidRide C Line service from West Seattle to downtown has been among the biggest successes for the program when measured by ridership increases. Between 2012 and 2014 ridership increased 75% to over 8,000 weekday riders. West Seattle is also growing rapidly with numerous residential and mixed-use projects recently completed, underway, or in the pipeline along the RapidRide corridor.

SDOT has evaluated opportunities to improve speed, reliability, and passenger amenities along this route. Key potential improvements include:

- Extend off-board fare payment to 24/7 along the entire corridor
- Install delineators to separate bus lanes from general purpose travel lanes
- Add additional LED "Do not enter" signs to keep traffic out of bus lanes
- Extend bus lane hours to include reverse peaks
- Install transit signal priority at additional intersections, where feasible
- Install additional tech pylons to provide real time customer information

RapidRide Express for C Line during Peak Periods

RapidRide service provides faster travel times than a typical local bus route due to wider station spacing and other speed and reliability improvements. For passengers traveling from major boarding areas to downtown, service speeds could still be higher. Since the C Line has few very high boarding locations, it is a good candidate for express service. This proposal would develop a RapidRide brand express service that serves only the Fauntleroy Ferry Terminal, Morgan Junction, and Alaska Junction before running express to one downtown stop and serving South Lake Union along Westlake Avenue.

In concept, such a service could include:

- 10 Peak Direction Trips
- 960 new seats (plus 250 comfortable standing positions) per peak
- Six new RapidRide coaches (requires coordination with KCM)

RapidRide tech pylons provide real time information, system maps, and off-board ticket validation.
Image from Oran Viriyincy

All-Door/Off-Board Fare Payment

RapidRide has provided a test-bed for all-door boarding and off-board fare payment on bus services in Seattle. The combination of these two features can be very beneficial in reducing bus travel times and improving reliability. San Francisco's Muni implemented these features on bus services city-wide in 2012. A study completed two years post implementation showed the following results in San Francisco:

- 1.5 second (38%) reduction in dwell time per passenger boarding
- 2% average speed reduction on all bus routes
- Improved fare compliance

While not specific to RapidRide, SDOT is interested in implementing all-door boarding and off-board fare payment on its busiest corridors and eventually city-wide. A first phase of implementation could include the 3rd Avenue Transit Spine and the busy Pike/Pine Corridor. These improvements would require the addition of off-board ORCA readers and ticket vending machines to 15 unequipped stops on 3rd Avenue and on Pike Street (depending on ORCA reader availability).

All door boarding on Muni's 1BX Express line in San Francisco reduces dwell time at stops.
Image from SFMTA

EXHIBIT D

18 MULTIMODAL IMPROVEMENTS

2015 Levy commitment: *Complete seven transit-plus multimodal corridor projects, redesigning major streets with more frequent and reliable buses, upgraded paving, signals and other improvements to improve connectivity and safety for all travelers, whether walking, biking, driving, or taking transit; complete the Burke-Gilman Trail Missing Link, Fauntleroy Way Southwest Boulevard projects, develop plans and complete improvements to enhance the NE 45th St Corridor for pedestrians and cyclists between 4th Ave NE and Brooklyn Ave NE by the time University Light Rail opens in 2021, and plan corridor improvements for Aurora Ave N.*

STATUS

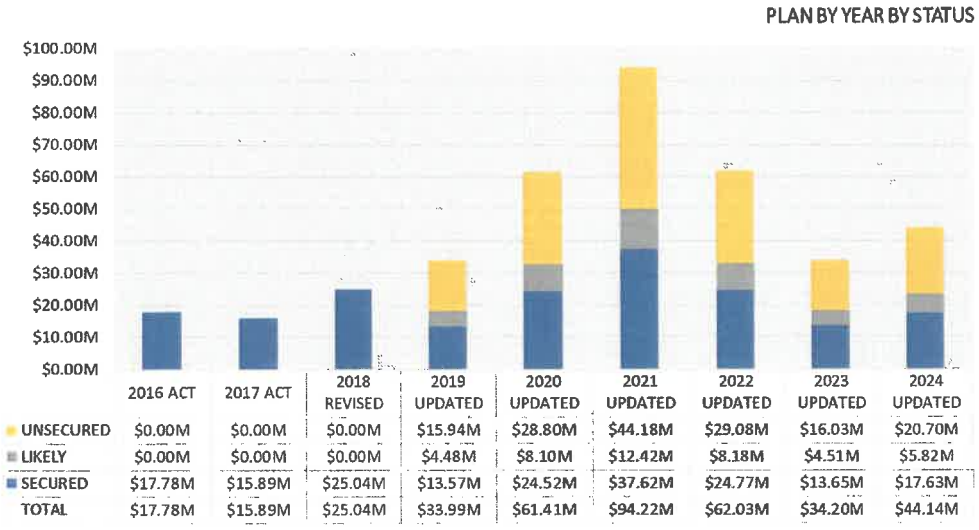
Updated workplans for the seven Transit-Plus Multimodal projects are included on pages 31-44.

Construction of the Burke-Gilman Trail Missing Link Project will be done in two phases. Phase 1 of the corridor has reached final design and construction is expected to begin in early 2019.

The construction of the Fauntleroy Boulevard Project was put on hold in January 2018. SDOT is exploring the construction of near-term improvements to help improve predictability for people who walk, drive, and bike on Fauntleroy Way while Sound Transit considers the preferred alignment. Based on the final alignment decision, SDOT will seek community feedback on next steps.

Planning and design efforts are currently underway for enhancements on NE 45th St between 4th Ave NE and Brooklyn Ave NE.

NINE-YEAR BUDGET AND SPEND PLAN



	2016 ACT	2017 ACT	2018 REVISED	2019 UPDATED	2020 UPDATED	2021 UPDATED	2022 UPDATED	2023 UPDATED	2024 UPDATED
UNSECURED	$0.00M	$0.00M	$0.00M	$15.94M	$28.80M	$44.18M	$29.08M	$16.03M	$20.70M
LIKELY	$0.00M	$0.00M	$0.00M	$4.48M	$8.10M	$12.42M	$8.18M	$4.51M	$5.82M
SECURED	$17.78M	$15.89M	$25.04M	$13.57M	$24.52M	$37.62M	$24.77M	$13.65M	$17.63M
TOTAL	$17.78M	$15.89M	$25.04M	$33.99M	$61.41M	$94.22M	$62.03M	$34.20M	$44.14M

Total Budget $388.7M

Move Seattle $105.3M

Local $25.7M

Identified Local $0.0M

Leverage $59.4M

Identified Leverage $198.2M

- Small Starts (FTA).....$104.9M
- 5307 (FTA).....$2.0M
- CMAQ (FTA).....$8.0M
- RMG (State).....$20.0M
- Sound Transit 3.....$28.5M
- King County Metro.....$34.8M

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: RAPIDRIDE ROOSEVELT

STATUS

This project will design and implement RapidRide and multimodal improvements along Stewart St, Fairview Ave, Eastlake Ave, Roosevelt Ave NE, and NE 11th/12th St, from 3rd Ave to the Roosevelt LINK Station. Route 70 will be upgraded with RapidRide and trolley infrastructure will be extended from the University Bridge to Roosevelt Station. Other improvements will include more frequent bus service, RapidRide stations with improved passenger amenities, and investments in bus lanes and transit signal priority to reduce transit travel time. The project also includes protected bike lanes on Eastlake Ave and NE 11th/12th St, and pedestrian crossing, curb ramp and sidewalk improvements at locations throughout the corridor.

The project scope includes paving overlay on NE 11th/12th St from the University Bridge to 67th Ave NE which is partially funded by the Arterial Asphalt and Concrete (AAC) program. As part of the updated workplan, the AAC program will also fully fund reconstruction of Eastlake (Fairview Ave to University Bridge). This funding is represented in the AAC program on page 19. At the 30% design milestone, the project will be baselined, including updating the project budget, cost estimate, and funding plan, which will incorporate changes from the levy assessment, design progression, and partnership funding timeline.

WORKPLAN (Updated November 2018)

Key

★ Federal Transit Administration (FTA) Small Starts Projects (Schedule and delivery contingent on securing Small Starts funding)

★ Review approach based on FTA Small Starts progress

★ Baseline project scope, schedule and budget

NINE-YEAR BUDGET AND SPEND PLAN

	2016 ACT	2017 ACT	2018 REVISED	2019 PROPOSED	2020 UPDATED	2021 UPDATED	2022 UPDATED	2023 UPDATED	2024 UPDATED
UNSECURED	$0.00M	$0.00M	$0.00M	$0.74M	$0.98M	$8.10M	$15.40M	$12.42M	$33.19M
LIKELY	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M
SECURED	$0.80M	$2.20M	$2.24M	$0.10M	$0.13M	$1.10M	$2.08M	$1.68M	$4.49M
TOTAL	$0.80M	$2.20M	$2.24M	$0.84M	$1.12M	$9.20M	$17.48M	$14.10M	$37.68M

Total Budget $85.7M

Move Seattle $8.5M

Local $0.9M

Identified Local* $0.0M

Leverage $5.4M

Identified Leverage $70.8M

Small Starts (FTA) $45.0M

RMG (State) $6.0M

King County Metro.....$19.8M

*NOTE: Subject to annual Council approval in the budget process.

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: RAPIDRIDE ROOSEVELT

COST AND RISK MANAGEMENT

Key risks

- **Funding:** The level and type of capital improvement to be constructed as part of this project is dependent on available funding. All budgeted funds are not yet secured. In addition, uncertainty related to Small Starts funding persists, particularly with regards to the schedule to secure a funding commitment from FTA. SDOT anticipates having to continue to advance the project at SDOT's risk until at least late 2020 before securing funding. The opening date has been delayed from 2021 to 2024 due to increased time to secure federal funding and to align with partner funding. SDOT will review progress towards receiving Small Starts funding in Q2 2019.
- **Partnerships:** Delivery of RapidRide requires a partnership with King County Metro.

Key risk reduction strategies

To mitigate risk, SDOT will prioritize development of third-party agreements (i.e. King County Metro, Seattle Public Utilities, and Seattle City Light) to define partner agency scope and funding. Additionally, impact fees associated with the University of Washington's Major Institution Master Plan could help fund improvements.

Cost reduction measures

Project scope will be scaled to match the identified funding plan at the 30% design milestone.

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: FREMONT

STATUS

This project will design and implement transit speed-and-reliability improvements along Route 40 between the Denny Triangle and Northgate. Investments will focus on bus lanes, channelization and signal optimization for buses, and transit signal priority. Access and safety improvements will be included as funding allows. This project will coordinate with other levy programs – Arterial Asphalt and Concrete, Bike Master Plan, Pedestrian Master Plan and Intelligent Transportation System Improvements – to determine if coordinated delivery of levy projects is possible.

WORKPLAN (Updated November 2018)

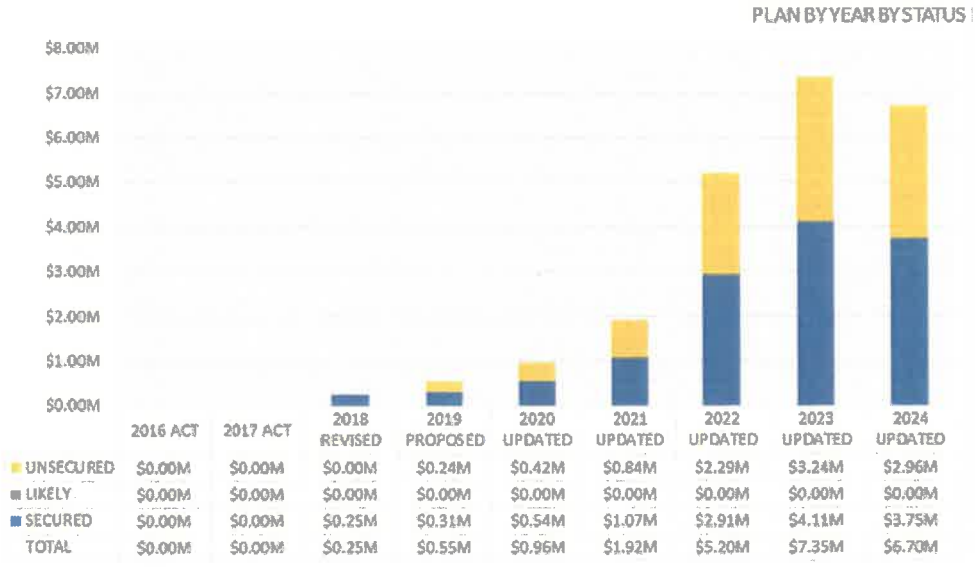
Key

★ Federal Transit Administration (FTA) Small Starts Projects (Schedule and delivery contingent on securing Small Starts funding)

★ Review approach based on FTA Small Starts progress

★ Baseline project scope, schedule and budget

NINE-YEAR BUDGET AND SPEND PLAN



	2016 ACT	2017 ACT	2018 REVISED	2019 PROPOSED	2020 UPDATED	2021 UPDATED	2022 UPDATED	2023 UPDATED	2024 UPDATED
UNSECURED	$0.00M	$0.00M	$0.00M	$0.24M	$0.42M	$0.84M	$2.29M	$3.24M	$2.96M
LIKELY	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M
SECURED	$0.00M	$0.00M	$0.25M	$0.31M	$0.54M	$1.07M	$2.91M	$4.11M	$3.75M
TOTAL	$0.00M	$0.00M	$0.25M	$0.55M	$0.96M	$1.92M	$5.20M	$7.35M	$6.70M

Total Budget $22.9M

Move Seattle $9.5M

Local $0.0M

Identified Local* $0.0M

Leverage.....$3.4M

Identified Leverage.....$10.0M

5307 (FTA).....$2.0M

CMAQ (FTA).....$4.0M

RMG (State).....$4.0M

*NOTE: Subject to annual Council approval in the budget process.

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: FREMONT

COST AND RISK MANAGEMENT

Key risks

Limited planning work has been completed and many unknowns exist. In addition, uncertainy regarding federal grant funding reduces SDOT's control of the project schedule.

Key risk reduction strategies

To mitigate risk, SDOT will define and align scope, funding, cost estimate and schedule at the 30% design milestone.

Cost reduction measures

Project scope will be scaled to match the identified funding plan at the 30% design milestone.

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: MARKET/45TH

STATUS

This project will design and implement transit speed-and-reliability improvements along Route 44 between the Ballard Locks and UW LINK Station. Investments will focus on bus lanes, channelization and signal optimization for buses, and signal priority for transit. Where transit improvements are implemented, access to transit and improved safety will be supported within financial constraints.

This project will coordinate with other levy programs – Arterial Asphalt and Concrete, Bike Master Plan, Pedestrian Master Plan and Intelligent Transportation System Improvements – to align their investments with this program when priorities overlap.

WORKPLAN (Updated November 2018)

Key

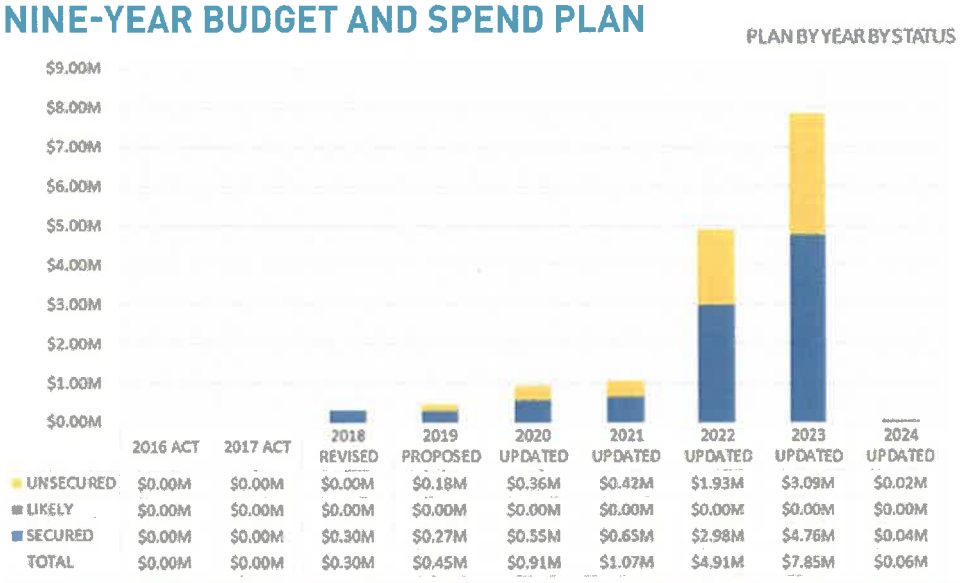
Planning (0-30% design) | Design (30-100% design) | Construction | Levy Investments

★ Federal Transit Administration (FTA) Small Starts Projects (Schedule and delivery contingent on securing Small Starts funding)

★ Review approach based on FTA Small Starts progress

★ Baseline project scope, schedule and budget

NINE-YEAR BUDGET AND SPEND PLAN



	2016 ACT	2017 ACT	2018 REVISED	2019 PROPOSED	2020 UPDATED	2021 UPDATED	2022 UPDATED	2023 UPDATED	2024 UPDATED
UNSECURED	$0.00M	$0.00M	$0.00M	$0.18M	$0.36M	$0.42M	$1.93M	$3.09M	$0.02M
LIKELY	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M	$0.00M
SECURED	$0.00M	$0.00M	$0.30M	$0.27M	$0.55M	$0.65M	$2.98M	$4.76M	$0.04M
TOTAL	$0.00M	$0.00M	$0.30M	$0.45M	$0.91M	$1.07M	$4.91M	$7.85M	$0.06M

Total Budget $15.6M

Move Seattle $9.5M

Local $0.1M

Identified Local* $0.0M

Leverage $0.0M

Identified Leverage.....$6.0M

RMG (State)..... $6.0M

*NOTE: Subject to annual Council approval in the budget process.

18 MULTIMODAL IMPROVEMENTS

TRANSIT-PLUS MULTIMODAL CORRIDOR: MARKET/45TH

COST AND RISK MANAGEMENT

Key risks

Limited planning work has been completed and many unknowns exist. In addition, uncertainy regarding grant funding reduces SDOT's control of the project schedule.

Current, identified risks to scope include: overlap with Pedestrian Master Plan and Bike Master Plan priorities and an expanded and more complex project scope due to other projects along the corridor. If trolley infrastructure is included, this project could be more complex and expensive to deliver.

Key risk reduction strategies

To mitigate risk, SDOT will define and align scope, funding, cost estimate and schedule at the 30% design milestone. Additionally, impact fees associated with the University of Washington's Major Institution Master Plan could help fund improvements.

Cost reduction measures

Project scope will be scaled to match identified funding at the 30% design milestone.

EXHIBIT E

Seattle Department of Transportation (transportation)
Linea Laird, Interim Director

RapidRide Roosevelt

Connecting Downtown Seattle with the neighborhoods of South Lake Union, Eastlake, University District, and Roosevelt

Updated: November 9, 2018

What's happening now?

The RapidRide Roosevelt project is moving forward! **View a map of the project. (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Map_Oct2018.pdf)**

Eastlake Neighborhood Project Briefing

On October 23, we held a community briefing about Eastlake-specific plans for the RapidRide Roosevelt project with the Eastlake neighborhood. At this meeting we:

- Shared information about the bicycle facility proposed for the Eastlake neighborhood, the multiple options SDOT considered for locating the bicycle facility, and the evaluation criteria used to measure those options.
- Shared potential strategies to address the loss of parking and impacts to the curbspace in the Eastlake neighborhood, and discuss opportunities for future involvement to discuss parking management.
- Reviewed the project timeline, including next steps for the environmental review process.

View the **presentation (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2018_1023_RapidRideRoosevelt_EastlakeBriefing_web.pdf)** shared at the meeting. You can also review the RapidRide Roosevelt's **bicycle facility evaluation (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Eastlake_Bicycle_Facility_Evaluation.pdf)** and the **draft parking and curbspace management analysis (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Curb_Space_Management_Study_DRAFT_100**

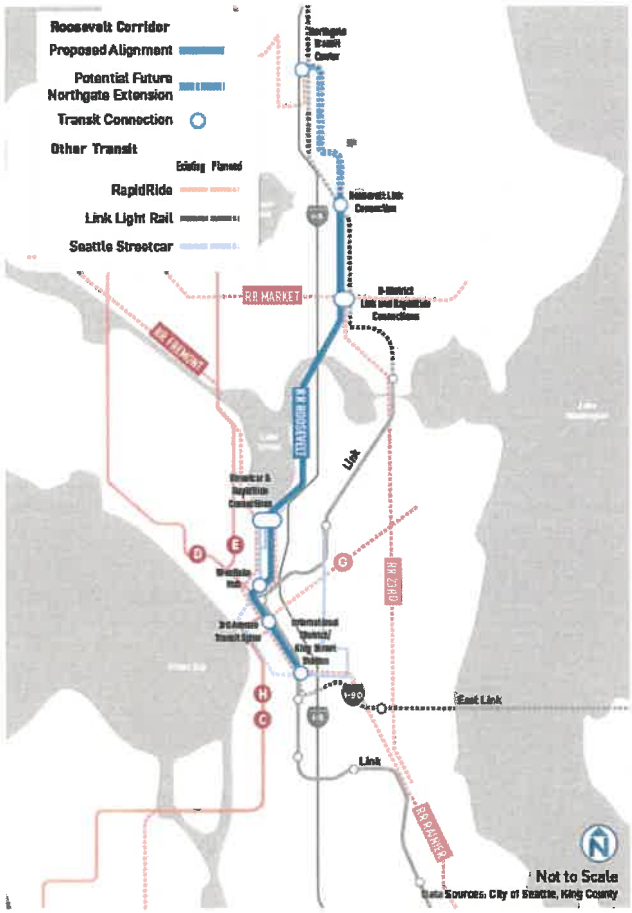
Note: The RapidRide Roosevelt project is contingent on FTA Small Starts grant funding, as well as funding opportunities from other partner agencies.

Overview

The RapidRide Roosevelt Project will provide a high-quality service connecting Downtown Seattle with the neighborhoods of South Lake Union, Eastlake, University District, and Roosevelt. We're partnering with King County Metro (KCM) to enhance transit connections and upgrade existing bus routes to Metro RapidRide service. Upgrading service will keep people moving by

- Keeping buses frequent and on-time
- Adding more buses at night and on weekends
- Upgrading to Metro RapidRide bus stops with lighting, real-time arrival info, and more
- Improving sidewalks and paths for people walking and people riding bikes

We're working to balance the needs of everyone who uses the corridor, whether they're in a bus, a car, walking or riding a bike.



Purpose and Need

The overall purpose of the RapidRide Roosevelt project is to improve transit travel times, reliability, and capacity to increase high-frequency, all-day transit service and enhance transit connections between Downtown Seattle and the Belltown, South Lake Union, Eastlake, University District, and Roosevelt neighborhoods, in order to:

- Address current and future mobility needs for residents, workers, and students
- Address capacity constraints in the transportation network along this north-south corridor
- Provide equitable transportation access to major institutions, employers, and neighborhoods

An additional purpose of the project is to improve pedestrian and bicycle connections and access to RapidRide stations and improve safety along the corridor.

The Roosevelt corridor has been identified as a high-priority corridor for meeting the following transportation and community needs:

- **Provide Transit Service to Support Housing and Employment Growth.** Significant growth in both housing and employment is underway for the five neighborhoods (Belltown, South Lake Union, Eastlake, University District, and Roosevelt) within the project corridor and Downtown Seattle. Based on population and employment projection data from Puget Sound Regional Council, by 2035, the area within approximately 0.5 mile of the corridor is forecasted to grow by over 22,000 residents (29 percent) and 91,000 employees (50 percent), for a total of over 98,000 residents and 274,000 jobs. There is inadequate capacity on existing bus service to support the planned development.
- **Provide Neighborhood Connections to Future Link Light Rail Stations.** Connectivity and capacity within the corridor are limited due to geographic and existing infrastructure constraints. Currently there is no direct rapid transit connection between the five neighborhoods and downtown Seattle. King County Metro Routes 67 and 70 provide service, but they travel in congested traffic lanes and require a passenger to transfer to another bus line to reach downtown Seattle. These limitations result in long transit times and unreliable schedules, reduci riders' ability to make connections and discouraging ridership. To accommodate the planned growth and increase in density along th

corridor, there is a need to provide better connections to existing and future Link light rail stations, existing and future RapidRide lines, and regional and local bus routes.

- **Improve Transit Travel Time and Reliability Throughout the Corridor.** Congestion is causing delays in transit travel time and negatively affecting transit reliability. The existing transit travel time in the corridor during the peak periods is up to 20 to 30 percent slower than off-peak hours. The slower transit travel time during the peak periods negatively affects reliability and result in over 30 percent of transit trips in the corridor running late during morning and evening peak periods. By 2021, without improvements in the corridor, the PM peak delay in transit travel time is expected to increase by almost 14 minutes (17 percent increase) for trips along the entire corridor.

- **Reduce Overcrowding of Existing Bus Capacity.** Over 20 percent of those within approximately 0.5 mile of the corridor already use transit, with even higher transit usage in Downtown Seattle and the University District neighborhood. Passenger loads currently exceed seated capacity along the corridor on 32 percent of daily trips and more than 63 percent of trips during the morning peak period. For the existing routes that provide transit service in the corridor between Downtown and the University District, average weekday ridership is expected to increase by 35 percent (i.e., from 4,770 riders per day in 2015 to 6,450 in 2035).

- **Improve Pedestrian and Bicycle Safety and Connections to Transit. With** significant transit service and dense, walkable neighborhoods, there is a high level of pedestrian and bicycle activity along the corridor, yet several intersections have above-average rates of bicycle and pedestrian collisions with vehicles. From 2010 to 2014, six intersections along the corridor were reported to have three or more pedestrian injury collisions and five intersections with four or more bicycle collisions with injuries. The City of Seattle Bicycle Master Plan recommends protected bicycle lanes as one of the highest priority bicycle network investments, given the geographic constraints and limited bicycle route alternatives to the corridor. Additionally, numerous sidewalks and intersections do not meet current City of Seattle standards and do not comply with the ADA.

Schedule

Timeline	Activities/Milestones
November 2014	Identify existing conditions in the corridor and conduct mode analysis
July 2015	Identify transit line characteristics
June 2016	Present a Recommended Corridor Concept
June 2017	Publish Locally Preferred Alternative
December 4, 2017 - January 12, 2018	Project Scoping
October 23, 2018	Eastlake neighborhood project briefing
2017-2021	Continue project design
2019	Publish Environmental Assessment for community review
2020	Anticipated date to finalize environmental document
2021	Anticipated construction start date
As soon as 2024	RapidRide Roosevelt service begins

Funding

This project is partially funded by the 9-year **Levy to Move Seattle (/transportation/about-sdot/funding/levy-to-move-seattle)**, approved by voters in 2015. Additional funding is being sought through a partnership with King County Metro and a Federal Transit Administration Small Starts Grant.

Project Materials

October 2018

- **Project map (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Map_Oct2018.pdf)**
- **Oct. 23, 2018 Eastlake neighborhood project briefing presentation slides (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2018_1023_RapidRideRoosevelt_EastlakeBriefing_web.pdf)**
- **Eastlake neighborhood project briefing mailer (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRide_Roosevelt_Mailer_Final.PDF)**

- **RapidRide Roosevelt Bicycle Facility Evaluation (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Eastlake_Bicycle_Facility_Evaluation.pdf)**
- **RapidRide Roosevelt Draft Parking and Curbspace Management Report (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RapidRideRoosevelt_Curb_Space_Management_Study_DRAFT_1**

September 2018

- **Presentation to the Seattle Bicycle Advisory Board (2018_0905_Roosevelt_SBABBriefing_ForDistribution.pdf)**

December 2017 - Environmental Scoping

- **Public scoping meeting display boards (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/PublicScopingMtg_DisplayBoardsComp.pdf)**
- **Public scoping meeting roll plots (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/PublicScopingMtg_RollPlotsComp.pdf)**
- **Roosevelt RapidRide Scoping Meeting Package (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltRapidRide_ScopingPacket.pdf)**
- **Public scoping meeting mailer (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltRapidRide_ScopingMailer.pdf)**

July 2017

- **Roosevelt RapidRide presentation to City Council Transportation Committee (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2017_0718_Roosevelt_LPA_CouncilPresentation.pdf)**

June 2017

- **Roosevelt RapidRide Project LPA Summary (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltLPASummarySheetV10.pdf)**
- **Roosevelt RapidRide Project LPA Report (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltLPA_Report_062117.pdf)**

June 2016 Open Houses

- **Presentation (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCTJuneOpenhousePresentation.pdf)**
- **Displays (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCTOpenHouseBoards.pdf)**
- **Handout (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCTConceptDescriptionEvaluation.pdf)**
- Corridor Maps by Area
  - **Downtown and South Lake Union (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCT1_DOWNTOWN.pdf)**
  - **Eastlake (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCT2_EASTLAKE.pdf)**
  - **Roosevelt and University (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCT3_ROOSEVELT.pdf)**
  - **Northgate and Maple Leaf #1 (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCT4_NORTHGATE_1.pdf)**
  - **Northgate and Maple Leaf #2 (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RHCT5_NORTHGATE_2.pdf)**

December 2015 Open Houses

- **Presentation (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltHTCPPT_120815.pdf)**
- **Displays (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/FINALBOARDS_12-07-2015.pdf)**
- Corridor Maps by Area

- **Downtown and South Lake Union (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/1_RooseveltDowntownSLU.pdf)**
- **Eastlake (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2_RooseveltEastlake.pdf)**
- **Roosevelt and University (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/3_RooseveltUDistrict.pdf)**
- **Northgate and Maple Leaf #1 (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/4_RooseveltNorthgateMapleLeaf1.pdf)**
- **Northgate and Maple Leaf #2 (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/5_RooseveltNorthgateMapleLeaf2.pdf)**

May 2015 Open Houses

- **Presentation Materials (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/SDOT_Roosevelt_HCT_OpenHouse_Boards_FINAL.pdf)**

Reference Documents

- **Roosevelt - Downtown High Capacity Transit Study: Corridor Concept Final Report (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2017_RooseveltCorridorConceptReport.pdf)** (2017)
  - Appendices
    - **Cost Estimates Memo (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2017_CostEstimatesMemo.pdf)**
    - **Plan Set - 10% Design (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RDHCT-10PCTPLAN SHEETS_FINAL_2017-03-01(2).pdf)** (March 2017)
- **Public Involvement Summary Report (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/2016_PublicInvolvementSummary.pdf)** (2016)
- **Purpose and Need (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RDHCTPurposeandNeed11-12-2015FINAL.pdf)**
- **Mode Analysis Report and appendix (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RooseveltModeAnMemo1015.pdf)**
- **Existing Conditions Report (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/RDHCTExistingConditionsReport11-30-15.pdf)**
- **Existing Conditions Report Appendices (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/ExistingConditionsReportRDHCT_appendices.pdf)**
- **Appendix E Addendum (Documents/Departments/SDOT/TransitProgram/RapidRide/Roosevelt/AppendixEAddendum2015-12-8.pdf)**

How can I get involved?

We're always interested in meeting with community and neighborhood groups that want to learn more about the project and make their voices heard. You can request a briefing by emailing **RapidRide@seattle.gov (mailto:RapidRide@seattle.gov)** or calling (206) 684-5189.

Updated: 12/12/2017

Garth Merrill

Project Manager

Phone: 206-684-5184 (tel:206-684-5184)

Email: RapidRide@Seattle.gov (mailto:RapidRide@Seattle.gov)

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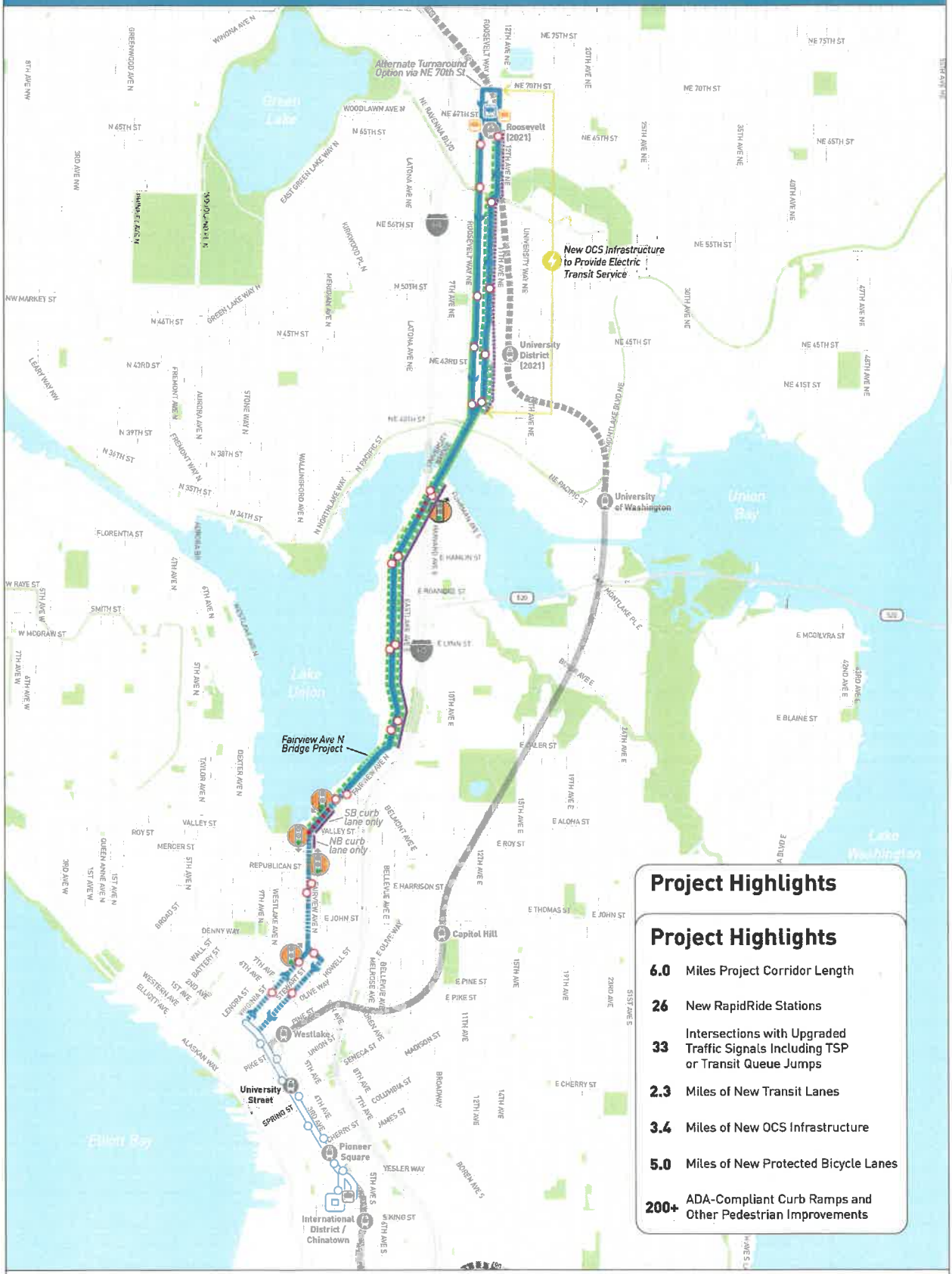
RapidRide Roosevelt: Project Highlights

October 2018



Project Highlights

Project Highlights

6.0	Miles Project Corridor Length
26	New RapidRide Stations
33	Intersections with Upgraded Traffic Signals Including TSP or Transit Queue Jumps
2.3	Miles of New Transit Lanes
3.4	Miles of New OCS Infrastructure
5.0	Miles of New Protected Bicycle Lanes
200+	ADA-Compliant Curb Ramps and Other Pedestrian Improvements

Corridor Treatment
- General Purpose Lane
- Business Access & Transit Lane
- Transit Only Lane
- Service Alignment No Project Improvements

Station Treatment
- Existing Station
- New/Upgraded Station

Other Transit Improvements
- New OCS Infrastructure
- Queue Jump Location

Layover Locations
- Existing Layover
- Preferred Layover Option
- Alternate Layover Option

Bicycle Facilities
- Existing Protected Bike Lane (PBL)
- Funded or In-Progress PBL
- New PBL proposed as part of Project

Other Transit Facilities
- Existing Link Light Rail
- Planned Link Light Rail
- Link Light Rail Station

0 1/4 1/2 1 Mile