

Seattle Department of Transportation and the Federal Transit Administration

Roosevelt RapidRide Project

SCOPING MEETING PACKAGE

DECEMBER 2017



Seattle
Department of
Transportation

The Levy to

MOVE SEATTLE



THIS PAGE INTENTIONALLY LEFT BLANK

CONTENTS

Acronyms and Abbreviations	v
1. Introduction	1
2. Project Background	2
3. Proposed Action	3
3.1 Roosevelt RapidRide Project Alignment.....	3
3.2 Roosevelt RapidRide Stations.....	7
3.3 Roosevelt RapidRide Layover Locations.....	7
3.4 Overhead Contact System, Poles, and Traction Power Substations	8
3.5 Nonmotorized (Bicycle and Pedestrian) Improvements.....	8
3.6 Operations	9
3.7 Parking and Loading Zones	9
3.8 Paving.....	9
3.9 Construction.....	10
4. Preliminary Purpose and Need	10
4.1 Project Purpose.....	10
4.2 Project Need	10
5. Alternatives to be Studied	12
5.1 No Build Alternative	12
5.2 Locally Preferred Alternative (LPA)	12
6. Environmental Analysis	13
7. Preliminary Schedule	13

Figures

Figure 1. Roosevelt RapidRide – Downtown, Belltown, and South Lake Union	4
Figure 2. Roosevelt RapidRide - South Lake Union and Eastlake.....	5
Figure 3. Roosevelt RapidRide - University District and Roosevelt.....	6

THIS PAGE INTENTIONALLY LEFT BLANK

ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disability Act
BAT	business access and transit
BRT	bus rapid transit
EA	Environmental Assessment
FTA	Federal Transit Administration
I-5	Interstate 5
LPA	Locally Preferred Alternative
NEPA	National Environmental Policy Act
OCS	overhead contact system
SDOT	Seattle Department of Transportation
TOL	transit-only lane
TPSS	traction power substation

THIS PAGE INTENTIONALLY LEFT BLANK

1. INTRODUCTION

The Seattle Department of Transportation (SDOT) and the Federal Transit Administration (FTA) are proposing the Roosevelt RapidRide Project. The project would provide electric trolley bus rapid transit (BRT) service along a 6-mile corridor between downtown Seattle and the Roosevelt neighborhood in northeast Seattle. The Roosevelt RapidRide Project would also serve the Belltown, South Lake Union, Eastlake, and University District neighborhoods.

Project improvements would only be provided north of 3rd Avenue along Virginia and Stewart Streets to the northern end of the route and would include:

- 26 new RapidRide stations (13 per direction of travel) from 3rd Avenue to NE 65th Street with service to 9 existing stations in downtown Seattle. Stations would be identifiable as part of the RapidRide system and include real-time arrival information and off-board payment.
- New poles and overhead wires added north of the University Bridge to power trolley buses.
- A new traction power substation or TPSS (source of electric power) in the northern portion of the project.
- A northern bus layover, where buses would park between runs.
- Protected bicycle lanes along 11th/12th Avenues, Eastlake Avenue, and Fairview Avenue.
- Sidewalk improvements to meet Americans with Disability Act (ADA) accessibility requirements.
- Paving along sections of 11th and 12th Avenues NE and Eastlake Avenue roadways.

No improvements are proposed along 3rd Avenue south of Virginia and Stewart Streets. However, bus service would be provided utilizing existing RapidRide stations.

Because this project is seeking funding from the FTA, it must comply with requirements of the National Environmental Policy Act (NEPA) to sufficiently evaluate the project merits and possible environmental impacts. FTA determined that the appropriate environmental documentation for the Roosevelt RapidRide Project is an Environmental Assessment (EA).

SDOT and FTA will be developing an EA over the next year. To begin the environmental process and inform agencies and stakeholders about the project, SDOT and FTA are initiating project scoping. The scoping process will help inform the range of issues to be addressed in the environmental document and potential significant issues related to the proposed project. SDOT and FTA will hold an agency scoping meeting and will also hold a separate public scoping meeting for the community, businesses, and residents to provide information on the project's design and to discuss potential environmental impacts.

Scoping meetings will be held at the following time and locations:

- Public Scoping Meeting
December 11, 2017
5 PM – 7:30 PM (Drop in anytime)
Silver Cloud Inn (1150 Fairview Avenue N, Seattle)
Eastlake AB Room¹
- Agency Scoping Meeting
December 13, 2017
2 PM – 4 PM
Seattle Municipal Tower (700 5th Avenue, Seattle)
41st Floor (Room 4155)

A 40-day scoping period will commence on December 4, 2017 and end on January 12, 2018. During that time, comments will be accepted on the project purpose and need, alternatives, and issues to be addressed in the EA.

Scoping materials are available at the Central Public Library at 1000 4th Avenue, at the University Branch Public Library at 5009 Roosevelt Way NE and on the project website at: <http://www.seattle.gov/transportation/projects-and-programs/programs/transit-program/rapid-ride/roosevelt-rapidride>

Written scoping comments can be provided during the scoping period to:

Sandra Gurkewitz
Senior Environmental Planner
Seattle Department of Transportation
P.O. Box 34996
Seattle, WA 98124-4996 or
RapidRide@seattle.gov

All scoping comments must be received by 5 PM Friday, January 12, 2018. Additional public meetings and open houses will be held at various stages of the project's design and during development of the EA. A formal 30-day public comment period will be provided at the time of the EA is published. SDOT and FTA will continue taking comments during development of the EA.

2. PROJECT BACKGROUND

The Roosevelt corridor was identified as one of five high-capacity transit corridors in the 2012 Seattle *Transit Master Plan*. From 2014 to 2016, SDOT and King County Metro Transit explored options for high-capacity transit along this corridor. After looking at a number of options, including rail and bus, and vetting these modes with the public, SDOT is moving forward with

¹ Location accessible via transit by Seattle Streetcar and King County Metro Route 70. Limited onsite parking is available

the Roosevelt RapidRide project. In July 2017, Seattle City Council adopted a Locally Preferred Alternative (LPA) for the Roosevelt RapidRide project (Council Resolution 31761).

SDOT is advancing the Seattle RapidRide Expansion Program in partnership with King County Metro to define and develop a comprehensive network of seven new RapidRide BRT² corridors in Seattle. Work to date includes a network refinement report that specifies corridor extents, timelines, and performance measures for the seven new RapidRide lines. Through a combination of transit service improvements, capital investment, and design treatments, these corridors will build on the success of existing RapidRide service and help meet local and regional transportation goals.

Over the past 20 years, Seattle has gained 100,000 new residents and approximately 50,000 jobs. In the next 20 years, an additional 120,000 residents and 115,000 jobs are anticipated. Completion of the RapidRide network will help deliver an easy-to-use, reliable transit system that connects people, places, and products by increasing the number of people that can be moved within the existing street network.

Currently, the RapidRide network in Seattle includes three lines (C Line, D Line, and E Line) connecting downtown Seattle neighborhoods to the north and south, providing 32,900 daily trips. The addition of the Roosevelt RapidRide line is estimated to provide over 19,000 daily trips by 2035.

3. PROPOSED ACTION

The Seattle City Council adopted LPA for the Roosevelt RapidRide project would provide high-frequency, 24-hour BRT service between downtown Seattle and the Roosevelt Link light rail station in northeast Seattle.

The project would connect downtown Seattle with the neighborhoods of Belltown, South Lake Union, Eastlake, University District, and Roosevelt. Compared to the existing conditions, the project would increase transit speed and reliability through enhanced signal systems and signal timing and roadway improvements. The project would increase passenger carrying capacity, serving high existing ridership and future population and employment growth. Service is targeted to begin in 2021, and if possible will occur in concert with the opening of the Sound Transit University District and Roosevelt Link light rail stations.

3.1 Roosevelt RapidRide Project Alignment

The Roosevelt RapidRide project corridor would be approximately 6 miles long. It would be constructed within the existing transportation right-of-way, which includes roadways and sidewalks. The alignment would provide transit-only lanes (TOLs), business access and transit (BAT) lanes, and general purpose (mixed) traffic lanes in various sections of the route as shown on Figures 1 to 3.

² BRT or bus rapid transit is a high-quality bus-based transit system that delivers fast, comfortable, and cost-effective services at metro-level capacities. With the right features, BRT is able to reduce the causes of delay that typically slow regular bus services, like being stuck in traffic and passengers queuing to pay onboard the bus.

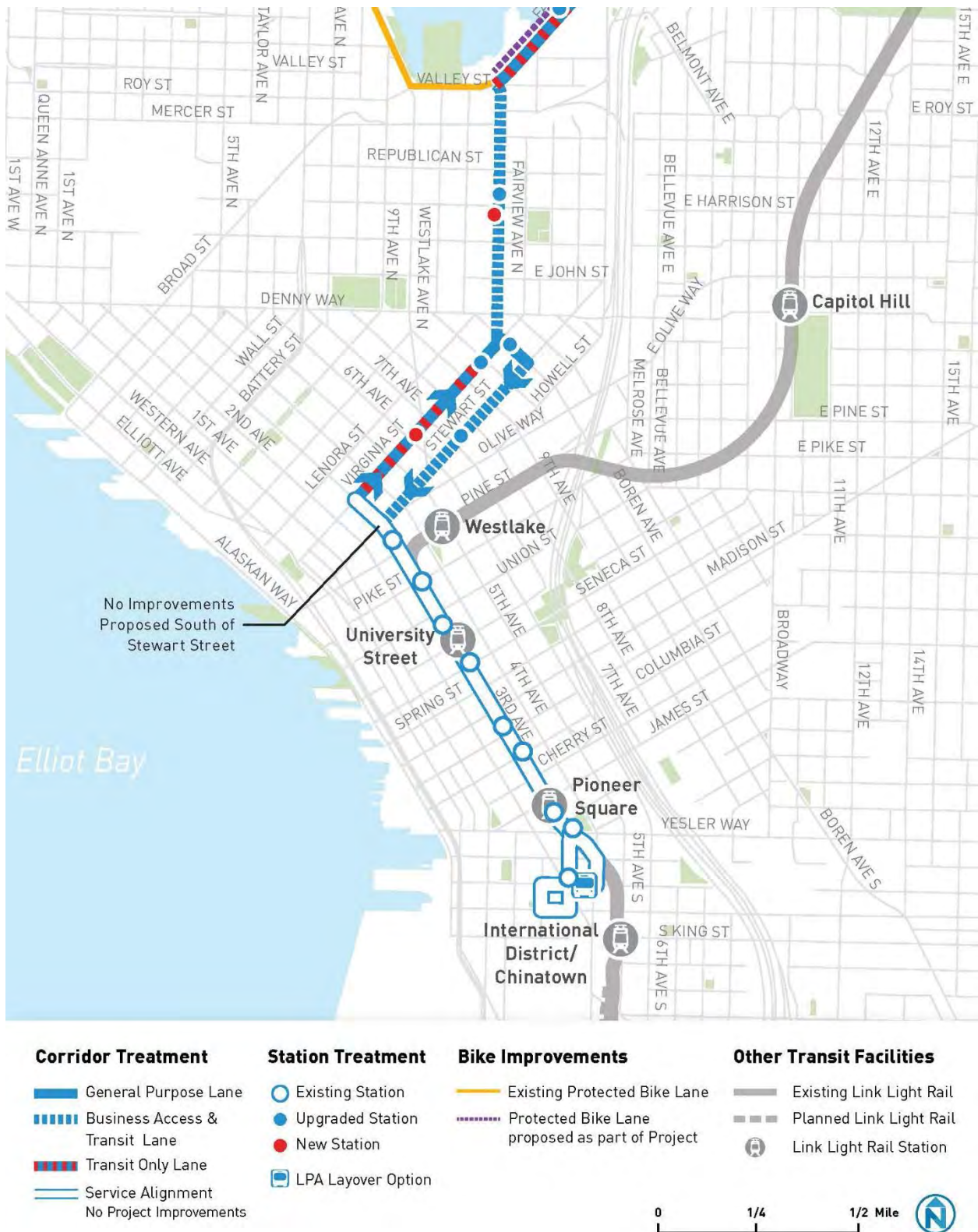


Figure 1. Roosevelt RapidRide – Downtown, Belltown, and South Lake Union

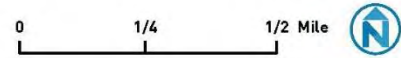
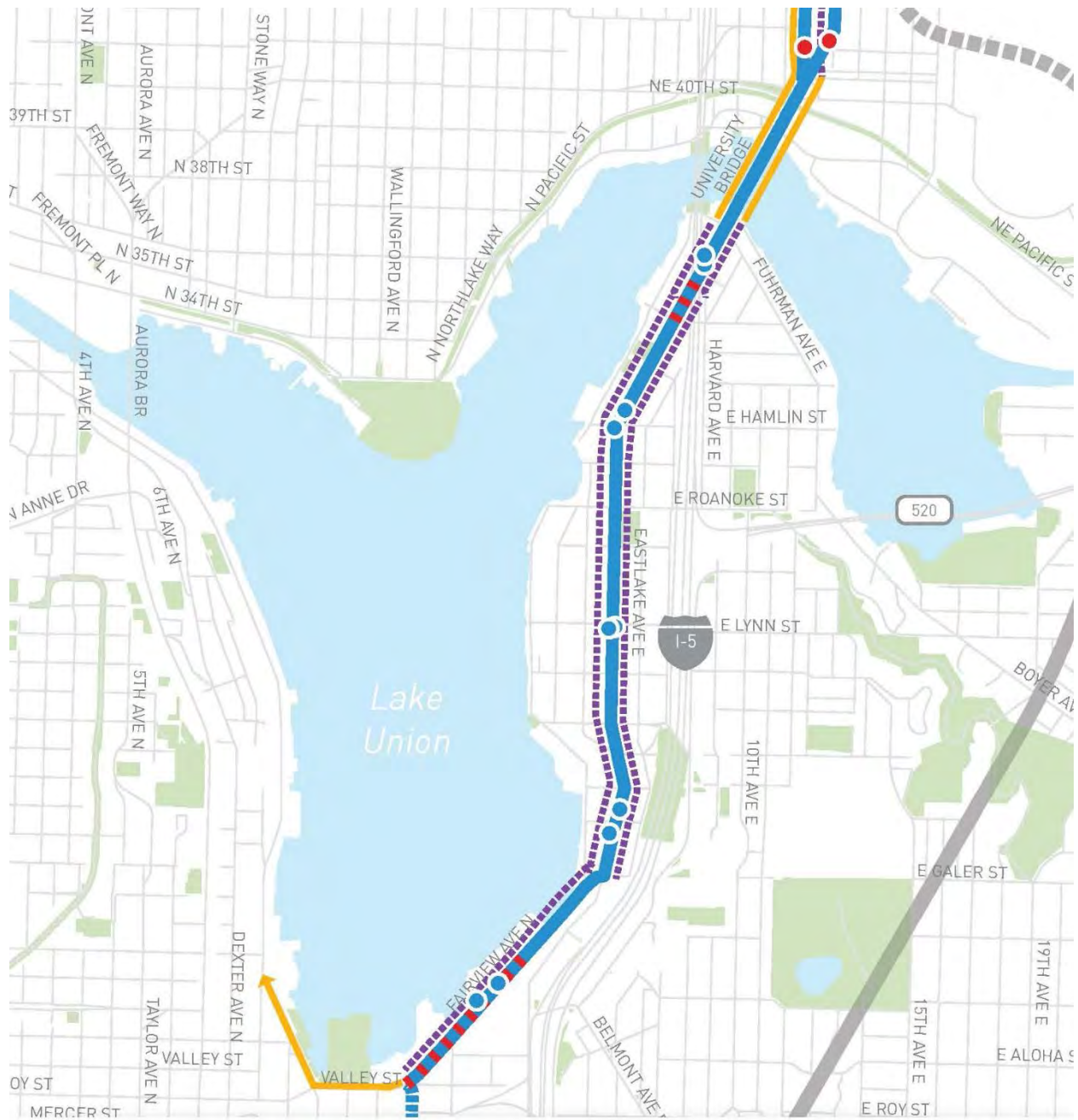


Figure 2. Roosevelt RapidRide - South Lake Union and Eastlake

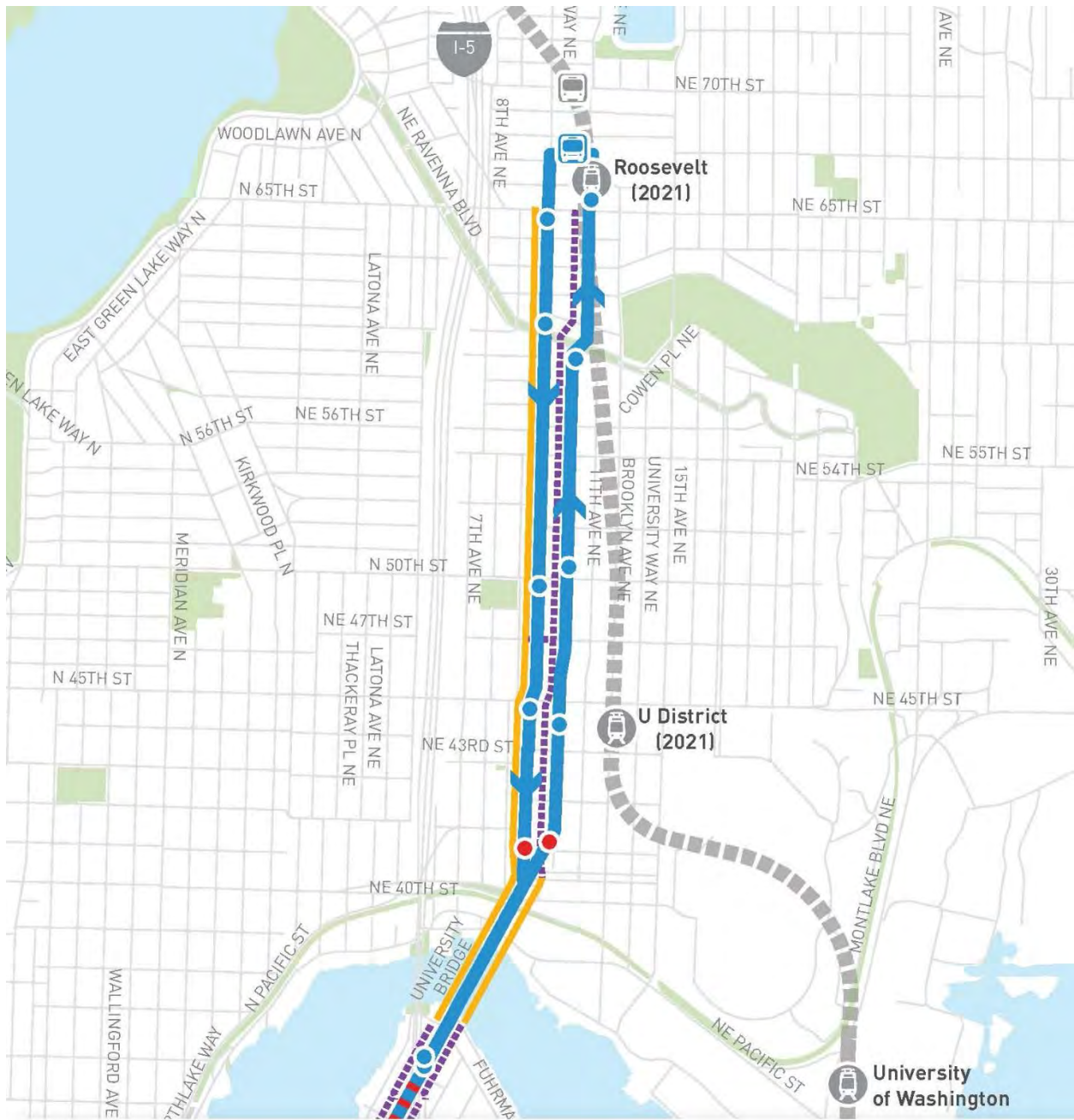


Figure 3. Roosevelt RapidRide - University District and Roosevelt

The southern terminus of the corridor would be two blocks northwest of the International District transportation hub at an existing RapidRide stop on S Main Street between 3rd and 4th Avenues. From here, the alignment would follow 3rd Avenue north through Downtown Seattle to Belltown, where northbound buses would continue north on Virginia Street. Southbound, the route would travel on Stewart Street. From the Virginia/Stewart couplet, the route would travel on Fairview Avenue N through South Lake Union. The alignment would continue on Fairview Avenue N to Eastlake Avenue E and then cross the University Bridge (Eastlake Avenue E).

North of the University Bridge, the alignment would travel through the University District and Roosevelt neighborhoods via a couplet of one-way streets. Northbound buses would travel along 11th Avenue NE, which becomes 12th Avenue NE north of Ravenna Boulevard, and southbound buses would travel along Roosevelt Way NE. Northbound service would end at the intersection of 12th Avenue NE and NE 65th Street at the future Roosevelt Link light rail station. Buses would continue north and turn at either NE 67th or NE 70th streets before continuing southbound on Roosevelt Way NE.

Dedicated TOLs would be located along Virginia Street in Belltown and along Fairview Avenue N in South Lake Union north of Valley Street. BAT lanes would be located on Fairview Avenue N between Denny Way and Valley Street.

No project improvements are proposed for the corridor south of the Virginia Street/3rd Avenue intersection, and the project would use the existing TOLs on Stewart Street between 9th Avenue and 3rd Avenue. Buses would travel along portions of S Main Street, 2nd Avenue S, and S Jackson Street to transition from southbound to northbound service.

3.2 Roosevelt RapidRide Stations

The project would include the construction of 26 new RapidRide stations, 13 per direction of travel from 3rd Avenue to NE 65th Street. Some stations would be located on the existing sidewalk, while others would be located on new bus stop islands. Where needed, asphalt pavement would be replaced with concrete on roadways in the station areas to support the weight of the buses. The Roosevelt RapidRide stations would be consistent with the existing RapidRide station standard, typically 80 feet long and including a 12-foot-long shelter/transit canopy. Each station would have a real-time arrival information system display, an off-board fare collection/card reader, benches, pedestrian level lighting, trash receptacles, and RapidRide branding elements, including signature signposts/ RapidRide blade markers and route information maps. All stations would meet ADA requirements. The Roosevelt RapidRide line would serve nine existing stations in Downtown Seattle.

3.3 Roosevelt RapidRide Layover Locations

Layover areas are locations where buses park while transitioning to service in a different direction. Layover areas provide a break for drivers and often include a driver comfort station onsite or at a nearby location.

The LPA assumed that buses would turn around in the north at NE 67th Street and a northern bus layover area would be provided on NE 67th Street (see Figure 3). Buses would park on the northern shoulder of NE 67th Street between 12th Avenue NE and Roosevelt Way NE.

Since adoption of the LPA, additional potential layover locations along 12th Avenue NE and along Roosevelt Way NE have been identified and will also be considered with the NE 67th Street turnaround route.

Another potential turn-around on NE 70th Street is being considered with a northern bus layover area on 12th Avenue NE between NE 66th Street and NE 68th Street has also been identified.

At the southern end of the route, the LPA would use an existing layover area on S Main Street (see Figure 1). Buses would park on the south shoulder of S Main Street in areas between 2nd Avenue S and 4th Avenue S where buses currently layover.

For all layover areas, bus parking would be within the existing street right-of-way.

3.4 Overhead Contact System, Poles, and Traction Power Substations

Buses running along the Roosevelt RapidRide corridor will be powered by electricity provided by an overhead contact system (OCS) that includes poles and wires. New OCS poles and wire would be added north of the University Bridge, starting at Eastlake Avenue E and NE 40th Street, and along both 11th Avenue/12th Avenue NE and Roosevelt Way NE. Depending on the northern bus layover location selected, the OCS poles and wire would extend to and on NE 67th Street or NE 70th Street. The OCS poles would be located within existing right-of-way (sidewalk) and would be spaced typically 100 feet apart. The OCS poles would be designed as consolidated traffic signal and/or lighting poles where possible. OCS wire would not be attached to buildings.

The corridor from the University Bridge south would generally utilize existing OCS poles except for locations where the roadway intersection would be widened, requiring some poles to be replaced. No new poles or wire are proposed on the University Bridge.

Electricity to run the OCS is generated through a TPSS. One TPSS approximately 13 feet by 21 feet plus an additional five feet of space surrounding it would be required for the project. The exact location of the TPSS will be identified during design of the project and evaluated in the EA. Property acquisition may be required if a suitable location on public property is not available.

3.5 Nonmotorized (Bicycle and Pedestrian) Improvements

The Roosevelt RapidRide project includes a number of improvements for pedestrians and bicyclists:

- Protected bicycle lanes along 11th/12th Avenue, Eastlake Avenue, and Fairview Avenue, connecting to existing bike facilities.
- ADA-compliant curb ramps and ADA-compliant pedestrian push buttons and countdown pedestrian signal heads to control pedestrian traffic at intersections near station locations.

- Intersection improvements to improve safety for pedestrians accessing the stations, including sidewalk repairs and crosswalk striping.

3.6 Operations

The Roosevelt RapidRide project is expected to operate 24 hours per day. Buses would run at 7.5-minute headways or better during peak periods and at 10-minute headways during midday and until 10 PM on weekdays. Weekend headways would range from 10 to 15 minutes. Nighttime hourly service would be provided 7 days per week from 1 AM to 5 AM.

To enhance speed and reliability, the project would provide a mix of enhanced signal system and spot signal timing improvements at most intersections between South Lake Union and the Roosevelt terminus. The enhanced signal system would provide priority to transit and respond to corridor traffic congestion. Roadway improvements, including TOLs and BAT lanes, would be provided in strategic locations. These would allow Roosevelt RapidRide buses to operate in dedicated space and travel relatively unimpeded through congested areas. TOLs would be identified with striping and signage, and with red-colored pavement in strategic locations.

The buses for the project consist primarily of all-electric buses from the existing King County Metro Transit trolley bus fleet. No additional buses are needed as part of the project. The buses would be 60 feet long; articulated with front, middle, and back doors; and ADA-accessible from the front doors with a bridge plate.

King County Metro Transit is expanding its bus base capacity, due to the growth of the bus transit system in the region. However, sufficient bus base capacity exists to accommodate the proposed Roosevelt RapidRide route. The Roosevelt RapidRide project does not include any elements tied to King County Metro's base expansion efforts.

3.7 Parking and Loading Zones

To enable buses to operate in dedicated transit lanes and allow for protected bicycle lanes, the project would remove on-street parking and vehicle loading zones in some areas of the corridor. Throughout the design process, SDOT will look for opportunities to reduce the loss of on-street parking and loading zones that do not negatively affect transit benefits associated with the project.

3.8 Paving

In addition to the concrete paving associated with stations described in Section 3.2, the project would include mill and overlay paving along 11th and 12th Avenues NE from the University Bridge to NE 67th Street.³ Milling would remove the top 2 inches of asphalt to minimize changes in roadway elevation and then overlay the roadway with 2 inches of new asphalt. The project also includes paving on Eastlake Avenue between Fairview Avenue and Harvard

³ A concurrent non-project activity would also mill and overlay 12th Ave from NE 67th St to Lake City Way.

Avenue. This work consists of replacing pavement in all travel lanes, spot repairs to the remainder, and mill and overlay of the full roadway width.

3.9 Construction

Project construction would require about 12 to 18 months to complete, but construction would be phased to minimize construction impacts along the alignment. Construction is planned to be limited to existing right-of-way but may require temporary construction easements. Construction would affect on-street parking and require temporary closures of travel lanes. Temporary sidewalk closures with signage noting detour routes would be necessary when constructing around stations and installing utilities or OCS poles.

Travel lanes would be closed for short periods of time and traffic detoured. Construction staging would be within the existing roadway right-of-way where construction is occurring, and any additional areas required for staging would be identified during final design.

4. PRELIMINARY PURPOSE AND NEED

4.1 Project Purpose

The overall purpose of the Roosevelt RapidRide 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.

4.2 Project Need

Seattle ranks fourth among all U.S. cities in 2016 in terms of high peak-hour traffic congestion.⁴ Interstate 5 (I-5), which passes through downtown and is directly adjacent to the project corridor, is among the most congested corridors in Seattle, carrying 200,000 vehicles daily. Due to geographic constraints and projected growth, Seattle is prioritizing transit to enhance trip capacity through the downtown core, Belltown, South Lake Union, Eastlake, and the University District.

Currently, transit service in the corridor consists of King County Metro Route 70 between downtown and the University District, and Route 67 between the University District and

⁴TomTom Traffic Index. 2016.

Roosevelt (continuing to Northgate). No direct all-day transit connections exist between Roosevelt and South Lake Union. Transit speed and reliability are low during peak periods, compared to off-peak periods, owing to traffic congestion and long dwell times at stations associated with passenger boarding and fare payment. King County Metro Routes 67 and 70, on average, run more than 5 minutes late in the PM peak period. Existing stops along the corridor lack amenities such as shelters, benches, lighting, and passenger information. Along the corridor, ADA accessibility is limited due to poor sidewalk conditions.

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.⁵ 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, reducing riders' ability to make connections and discouraging ridership. To accommodate the planned growth and increase in density along the 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.⁶ 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.⁷
- **Reduce Overcrowding of Existing Bus Capacity.** Over 20 percent of those within approximately 0.5 mile of the corridor already use transit,⁸ with even higher transit usage

⁵ Puget Sound Regional Council, 2017, Projections for Cities and Other Places. <https://www.psrc.org/projections-cities-and-other-places>.

⁶ Roosevelt Downtown High Capacity Transit Study. *Corridor Concept Final Report*. September 2016.

⁷ Based on VISSIM traffic modeling for PM peak travel times, Fall 2017

⁸ U.S. Census Bureau, 2015, 2010-2014 American Community Survey.

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.⁹ 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).¹⁰

- **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.¹¹ 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.

5. ALTERNATIVES TO BE STUDIED

Two alternatives will be evaluated in the EA: the No Build Alternative and the LPA.

5.1 No Build Alternative

NEPA requires the consideration of a No Build Alternative to provide a baseline for establishing and comparing environmental impacts of alternatives. The No Build Alternative describes what would happen if the project were not built. It includes known planned improvements in the area.

5.2 Locally Preferred Alternative (LPA)

The LPA is shown in Figures 1 through 3. The LPA would provide an electric BRT service along a 6-mile corridor within existing transportation right-of-way (roadway and sidewalk), providing connections to local and regional transit service, including Sound Transit Link light rail, Sound Transit Sounder commuter train, Seattle Streetcar network, other RapidRide lines, and regional bus service.

The LPA as approved by Seattle City Council proposed a northern bus layover along the north shoulder of NE 67th Street (for a turnaround at NE 67th Street). Based on consultation with King County Metro, the following additional turnaround and layover options will be considered:

- NE 67th Street turnaround and layover spaces along 12th Avenue NE and Roosevelt Way NE

⁹ Roosevelt Downtown High Capacity Transit Study. *Corridor Concept Final Report*. September 2016.

¹⁰ FTA. 2015. *Simplified Trips on Project Software*. Version 2.01

¹¹ Roosevelt Downtown High Capacity Transit Study. *Corridor Concept Final Report*. September 2016.

- NE 70th Street turnaround and layover spaces on the east shoulder of 12th Avenue NE between NE 66th Street and NE 68th Street.

6. ENVIRONMENTAL ANALYSIS

The EA will assess the potential impacts and benefits of the No Build Alternative and the LPA following federal requirements. Comments received during the scoping process will help to refine the analysis to be conducted. Based on preliminary design of the project, the following elements have been identified for evaluation in the EA:

- Transportation
 - Traffic
 - Transit
 - Pedestrian and Bicycle Movements
 - Parking
- Noise and Vibration
- Water Resources
- Historic and Archaeological Resources
- Environmental Justice
- Cumulative Impacts
- Hazardous Materials
- Social and Economic
- Public Services
- Parks and Recreation/Section 4(f) & 6(f)

7. PRELIMINARY SCHEDULE

MILESTONE	DATE
Project Scoping	December 4, 2017- January 12, 2018
Public Scoping Meeting	December 11, 2017
Agency Scoping Meeting	December 13, 2017
30% Design Open House	February/March 2018
EA Published	September 2018
EA Comment Period (30 days)	October 2018
Finding of No Significant Impacts Issued	January 2019
Final Design	2018-2019
Construction	2019-2021
Start of Service	2021

