# SEPA ENVIRONMENTAL CHECKLIST

### *Purpose of checklist:*

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

### *Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### *Instructions for Lead Agencies:*

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

### *Use of checklist for nonproject proposals:*

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

## *A. Background* [HELP]

1. **Name of proposed project, if applicable:**

   RapidRide H Line

2. **Name of applicant:**

   King County Metro Transit Department (Metro) and the Seattle Department of Transportation

(SDOT). The design and construction of H Line is a joint project by the two agencies.

**3. Address and phone number of applicant and contact person:**

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**4. Date checklist prepared:**

September 2019

**5. Agency requesting checklist:**

Per Washington Administrative Code (WAC) 197-11-926, Metro is the SEPA lead agency, although Metro and SDOT have designed separate sections of the corridor. Metro has responsibility for designing and constructing the H Line layover in South Lake Union and the route between SW Barton Street and Burien Transit Center. SDOT has responsibility for designing and constructing the H Line between the West Seattle Bridge and 17th Avenue SW on Delridge Way SW. This SEPA checklist covers the entire length of the H Line alignment.

**6. Proposed timing or schedule (including phasing, if applicable):**

SDOT's construction in the Delridge neighborhood of West Seattle would begin in mid-2020 and last approximately 18 months to early fall of 2021. Metro's construction in the remaining portions of the H Line corridor would begin in mid-2020 and last approximately a year to mid-2021. H Line service is expected to begin in the fall of 2021.

**7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

No future additions, expansions, or further activity related to this project are currently planned.

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

The following environmental information has been prepared for the project:

- *Delridge Multimodal Corridor Drainage Report (90%)*, SCJ Aliance, October 2019
- *Delridge Way SW Multimodal Corridor Study Existing Conditions Report,* Seattle Department of Transportation, March 2017
- *Delridge Way RapidRide Stop Consolidation Analysis*, Seattle Department of Transportation, January 2018
- *Delridge Way SW Corridor Traffic Analysis Methods and Assumptions*, DKS, February 2018
- *Delridge Bus Rapid Transit Pavement Report*, Perteet, August 2017

- *Delridge Way SW Corridor Traffic Analysis*, DKS, February 2018
- *Cultural Resources Screening for RapidRide H Line (1132325), Tom Minichillo,* PhD, March 2, 2018
- *H Line Equity and Social Justice Technical Memorandum*, WSP, June 7, 2019
- *H Line Geotechnical Report*, CDM Smith, October 2019
- *H Line Hazardous Materials Review Technical Memorandum*, WSP, June 7, 2019
- *H Line Noise and Vibration Assessment Technical Memorandum*, WSP June 7, 2019
- *H Line Planning and Upgrade Report,* WSP, September 2018
- *Preliminary Cultural Resources Review for the RapidRide H Line, King County, Washington*, Tierra Right-of-Way, June 5, 2019
- *RapidRide H Line Corridor Planning and Upgrade Report*, King County Metro, 2018

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

Metro and SDOT are not aware of any other applications pending for governmental approvals of other proposals directly affecting the H Line improvements. Metro is developing two separate pedestrian access projects, one at the Burien Transit Center where Route 120 terminates and another east of the H Line alignment along SW 100th Street. Improvements at the Burien Transit Center are connected to the original development of the RapidRide F Line project and will improve curb, sidewalk, and pedestrian signalization. Trail access and sidewalk improvements are part of a transit pedestrian safety and access project on SW 100th Street to improve and complete sidewalks east of 13th Avenue SW.

**10. List any government approvals or permits that will be needed for your proposal, if known.**

There are several agencies from whom Metro and SDOT may seek approvals. Please see below for the list of agencies and permits that the agencies may issue in association with the RapidRide H Line project.

**Metro's Portion of H Line Project**

<u>Seattle Department of Transportation-Issued Permits:</u>

- Utility Permits
- Annual Truck Permit
- Street Improvement Permit

<u>City of Burien-Issued Permits and Approvals:</u>

- Right-of-Way Use Permit
- Critical Area Exemption

King County Department of Local Services, Permitting Division-Issued Permits:

- Public Works Permit

Washington State Department of Ecology (Ecology)-Issued Permit:

- Construction Stormwater General Permit – National Pollutant Discharge Elimination System (NPDES)

Washington Department of Fish and Wildlife Issued Approval (if required):

- Hydraulic Project Approval (HPA)

**SDOT's Portion of H Line Project**

- Construction Stormwater General Permit – NPDES (Ecology)
- King County Industrial Waste (KCIW) Discharge Permit
- Washington Department of Fish and Wildlife HPA (if required)

**11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

King County Metro Transit Department (Metro) and the Seattle Department of Transportation (SDOT) are jointly planning to upgrade the existing Metro Route 120 to RapidRide service as the H Line. Metro is the lead agency for SEPA review and this checklist reviews the potential environmental impacts for both the Seattle and Metro parts of the project.

Route 120, which is about 13 miles long, runs between downtown Seattle in the South Lake Union neighborhood and the Burien Transit Center. The route will connect the communities of downtown Seattle, Delridge in West Seattle, White Center in unincorporated King County, and Burien.

Metro's RapidRide lines are designed to provide faster and more frequent and reliable service with enhanced passenger facilities at stops. The conversion of Route 120 to H Line will entail changes to bus stops, intersections, pedestrian and bike access, on-street parking, and travel lanes for buses and general purpose traffic. The start of revenue service for H Line is planned for fall 2021.

For the purposes of analysis and design, the H Line corridor was divided into five areas as shown in Figures 1a-1c beginning on page 11, and described below:

- Area 1 begins in South Lake Union and extends to S Jackson Street in downtown Seattle.
- Area 2 includes the SODO area along 1st Ave S and the West Seattle Bridge to Delridge Way SW at SW Andover Street.
- Area 3 includes the North Delridge portion of West Seattle from SW Andover Street to SW Henderson Street.
- Area 4 begins near Westwood Village in the City of Seattle on SW Barton Place and goes through White Center in unincorporated King County to the Burien city limits.
- Area 5 begins at the north city limits of the City of Burien on 16th Avenue SW and extends along Ambaum Boulevard SW to SW 150th Street at the Burien Transit Center.

The City of Seattle leads the planning and design for Areas 2 and 3 within West Seattle as part of its Delridge Multimodal Corridor Project. The purpose of the Delridge Multimodal Corridor Project is to move more people by prioritizing transit and laying the groundwork for the H Line. It is part of SDOT's transit program identified in the Move Seattle levy that was passed by voters in 2015.

Metro leads the planning and design for Areas 1, 4, and 5 as part of the long-range plan for expanded RapidRide network by 2040 in Metro Connects.

For the planned route by street network, see the description under project location, in the response to Question #12, and Figures 1a to 1c.

**SUMMARY OF CHANGES**

This section describes the general features proposed for the project based on the type of improvement. The summary is followed by location-specific descriptions by area.

**Passenger Facilities**

Typical features at RapidRide bus stops include RapidRide-branded shelters, benches or leaning rails, lighting, trash receptacles, real-time signs, and Metro bus route (flag) signs on poles. The combination of features at particular stops are determined in the design phase by the number of boarding's, the space available within the right-of-way, and whether electrical connections are available. Wider sidewalks allow for flexibility and room for more features. Construction will include removing existing shelters and foundations and excavating and building new foundations and installing the new features.

**Bus Operations**

The following general project elements were analyzed during the planning phase as part of enhancing the speed and reliability of bus operations:

- Business Access and Transit (BAT) lanes
- Optimization of traffic signal timing
- High-intensity activated crosswalk (HAWK) signals
- Transit queue jumps and queue bypass lanes that allow buses to move before general purpose traffic moves at specific intersections
- Transit signal priority (TSP) signals that hold the green light phase for approaching RapidRide buses and shorten red times for RapidRide buses at intersections

**North Terminus Layover Spaces**

The north end of the H Line service will require new layover spaces for coaches. The Route 120 is currently constrained by lack of layover space and adding service will increase the need for more. Layover spaces allow bus drivers rest time and also increases reliability by buffering the scheduled times for starting and ending routes. Metro is seeking to secure a minimum of three layover spaces for 60-foot coaches in the South Lake Union neighborhood. Several options have been explored during project development, one near Denny Park and another on Dexter Avenue N between John and Harrison streets. There are obstacles to establishing layovers at both locations. For that reason Metro continues to research sites in coordination with SDOT to meet Metro standards and in compliance with SDOT's Street Use Code, and through public outreach. The north layover location is expected to be within the South Lake Union neighborhood and as close to the H Line alignment as possible. The farther the layover from the last service stop, the more costly the service is to run. An on-street layover area can be created by re-striping and painting curbs. Installing a comfort station or

bathroom for operators, if needed, will require ground-breaking to connect to the sanitary sewer system. If there is currently on-street parking, there is the potential for parking removal.

**BAT Lanes**

BAT lanes are a type of transit lane on the curb side of a street that is restricted to buses and allows general traffic only when accessing driveways or making right turns at intersections. To allow for the addition of BAT lanes and to avoid property impacts, an existing travel lane is typically converted to the BAT lane. BAT lanes will be restricted for transit use either for a full 24-hour day or for peak use only in Areas 3, 4, and 5, with specific locations identified by area.

**Removal of On-street Parking**

In Seattle and Burien, most of the loss of on-street parking spaces will be due to needing the width for BAT lanes. Some on-street parking in the BAT lanes will be allowed outside of peak traffic hours. Other parking loss will be due to extending curbs at intersections in some locations.

**Pedestrian and Bicycle Facilities**

Protected bike lanes on Delridge Way SW will be modified as described for Area 3 below. New crossing beacons, sidewalks, and crosswalks are also proposed in Area 3. A pedestrian crossing on Ambaum Boulevard SW at SW 142nd Street in Area 5 will be constructed with a refuge and crossing beacon. No other changes to pedestrian or bike facilities are proposed.

**Other Construction**

Sub-standard roadbeds and sidewalks and curbs will be replaced at some locations. At bus stops, the weight of buses can require construction of concrete bus pads that can support the weight without deteriorating. Stormwater facilities and electrical connections for lighting, Wi-Fi and other telecommunications will require excavation or trenching and in some cases will extend beyond the immediate bus stop in order to connect with the existing stormwater and electrical networks. Two existing power poles and five light poles will need to be moved to accommodate construction of the improvements.

**Landscaping**

In Area 3, approximately 30 trees along Delridge Way SW will need to be removed due to conflicts with proposed improvements. Tree replacement is required at a 2:1 ratio, which requires a minimum of 60 trees to be planted. This project will plant approximately 165 trees in new median islands and in planter strips along the corridor which will also have grass. Proposed trees will be a combination of deciduous trees from the City's approved street tree list.

In Area 5, 10 trees will need to be removed to widen the roadway along Ambaum Boulevard SW south of SW 116th Street. Approximately 85 trees will be planted in the new landscaped strip, which will also have shrubs and groundcover. Proposed trees will be a combination of maples, tulip trees, oak and Persian parrotia.

**Proposed Project Details by Area**

*Area 1*

Area 1 covers the project area in downtown Seattle between approximately Harrison Street in the north and S Jackson Street. The project In Area 1 would:

- re-stripe and paint the curb to create a new layover for H Line buses

*Area 2*

Area 2 starts at S Jackson Street and crosses the West Seattle Bridge to Delridge Way SW at SW Andover Street. Most of Area 2 would have no change. The project in Area 2 would:

- overlay and replace selected pavement panels on Delridge Way SW from the West Seattle Bridge off-ramp exit to SW Andover Street
- construct new marked crosswalk at SW Andover Street
- create new BAT lanes between the bridge and SW Andover Street

*Area 3*

Area 3 runs along Delridge Way SW from SW Andover Street to SW Henderson Street. The project in Area 3 would:

- overlay and replace selected pavement panels on Delridge Way SW from SW Andover Street to SW Genesee Street
- replace pavement and curbs between SW Genesee Street to just south of SW Myrtle Street
- establish northbound (NB) and southbound (SB) 24-hour BAT lanes between SW Andover Street and SW Alaska Street; and NB only BAT lanes between SW Holden Street and SW Myrtle Street
- establish NB only peak-hour BAT lanes between SW Hudson Street and SW Alaska Street; and SB only peak-hour BAT lanes between SW Graham Street and SW Holden Street
- install new traffic signal queue jumps for transit SB at SW Holden Street and NB at SW Oregon Street
- pedestrian
- upgrade transit and pedestrian access signals, and Closed Circuit Television (CCTV) cameras and travel time equipment at selected intersections
- install RapidRide passenger facilities and construct new bus pads as needed at the following existing and new bus stop locations:
    - SW Andover Street
    - SW Genesee Street
    - SW Hudson Street
    - SW Findlay Street (new)
    - SW Graham Street
    - SW Holly Street
    - SW Myrtle Street
    - SW Holden Street (new)
    - SW Thistle Street
    - SW Henderson Street (new)
- remove the following existing bus stops:

  - Delridge Way SW at SW Alaska, Edmunds, Brandon, Juneau, Webster, Kenyon and Trenton Streets, and Croft Place SW
  - SW Oregon Street stop will not have RapidRide service

- improve sidewalks and crosswalks and construct new ADA-accessible curb ramps at intersections
- install new landscaped medians, pedestrian lighting, and public art at locations along the corridor
- install new flashing crossing beacons at SW Graham, Findlay, and Hudson Streets and signal upgrades throughout corridor where required
- build a new SB protected bike lane along Delridge Way SW between SW Juneau Street and SW Orchard Street and between SW Holden Street and 17th Avenue SW
- build a new WB protected bike lane along SW Andover Street between Delridge Way SW and 26th Avenue SW
- remove SB protected bike lane between SW Andover Street and SW Juneau Street, NB protected bike lane between SW Kenyon Street and SW Holden Street, and NB protected bike lane between SW Holden Street and SW Myrtle Street
- establish new no-parking areas:
  - SB, south of 23rd Avenue SW by approximately 500 feet
  - SB, north of SW Graham Street
  - SB, between SW Holden and SW Cambridge Streets
  - NB, between SW Andover Street and 23rd Avenue SW
  - NB, between SW Myrtle and SW Holden Streets
- establish new off-peak only parking areas:
  - SB, between SW Graham and SW Holden Streets
  - NB, between SW Hudson and SW Alaska Streets
- construct a new greenway along SW Juneau Street to connect existing neighborhood greenways to the east and west that parallel Delridge Way SW
- install new neighborhood greenway signage and speed humps along SW Andover Street between Delridge Way SW and 26th Avenue SW and along 26th Avenue SW from SW Andover Street to SW Juneau Street
- install drainage inlets and conveyance necessary to meet Stormwater Code requirements for new improvements
- temporary construction easements (TCEs) will be required, including 15 for SDOT and 23 for Seattle City Light for a total of 38

*Area 4*

Area 4 covers the area from SW Henderson Street northeast of the Westwood Village shopping center in Seattle, east along SW Roxbury Street to White Center in unincorporated King County, south on 16th Avenue SW to SW 112th Street at the City of Burien's north city limits. The project in Area 4 would:

- add protected left-turn signal phases and left-turn pockets at:
  - SW Barton Street and 26th Avenue SW
  - 26th Avenue SW and SW Roxbury Street

    - SW Roxbury Street and 15th Avenue SW (NB only)
- Optimize signal timing at all SW Roxbury Street intersections
- construct new ADA-accessible curb ramps at intersections served by the H Line stops
- repave/rebuild:
    - concrete panels along 26th Avenue SW between SW Barton and Roxbury Streets with continuous asphalt pavement and new curbs
    - 15th Avenue SW between SW 106th and 107th Streets
- install RapidRide passenger facilities and construct new bus pads as needed at the following locations:
    - SW Barton Street at 25th Avenue SW (SB)
    - 26th Avenue SW at SW Barton Street (NB)
    - SW Roxbury Street at 26th and 20th Avenues SW
    - 15th Avenue SW at SW Roxbury Street, SW 102nd (new), and 107th (NB) Streets
    - 16th Avenue SW at SW 112th Street
- Remove the following existing bus stops:
    - SW Barton Street at 22nd Avenue SW
    - SW Roxbury Street at 16th and 17th Avenues SW (NB-SB pair)
    - 15th Avenue SW at SW 100th and 104th Streets (NB-SB pairs)
    - 16th Avenue SW at SW 110th and 107th Streets (NB-SB pair)
- TCEs will be required from a total of 30 properties

*Area 5*

Area 5 begins at SW 112th Street and 16th Avenue SW at the north city limits of Burien, south to Ambaum Boulevard SW to SW 150th Street to the Burien Transit Center. The project in Area 5 would:

- replace a NB and a SB travel lane on Ambaum Boulevard SW between SW 116th and 122nd Streets, with a center turn lane, new sidewalks, and a 4- to 5-foot-wide planter strip on both sides of the street
- widen the SB (north side) approach on Ambaum Boulevard SW at SW 128th Street to include two left-turn lanes and a combined BAT/right-turn lane; widen the NB (south side) approach to install a 4-foot-wide mountable median
- create NB and SB BAT lanes on Ambaum Boulevard SW between SW 112th Street and SW 148th Street
- plant trees and groundcover on Ambaum Boulevard SW between SW 116th Street and SW 120th Street; species include maple ('Metro Gold' and 'Rocky Mountain Glow'), Persian Parrotia ('Vanessa'), and Tulip Tree ('Emerald City')
- install stormwater facilities on Ambaum Boulevard SW at 15th Avenue SW and at SW 102nd, 120th, and 128th Streets
- repave/rebuild:
    - the south sidewalk and on-street parking area on SW 136th Street and an adjacent alleyway between Ambaum Boulevard SW and 8th Avenue SW
- install RapidRide passenger facilities and construct new bus pads as needed at the following locations:
    - Ambaum Boulevard SW at SW 116th, 122nd, 128th, 136th, 142nd (new--includes

mid-block pedestrian refuge and crossing signal) and 148th Streets
    - SW 150th Street at 6th Avenue SW (new)
    - Burien Transit Center at SW 148th Street
- Remove the following existing bus stops:
    - Ambaum Boulevard SW at SW 124th, SW 132nd, SW 139th, and SW 144th Streets
    - SW 148th Street at 6th Avenue SW
- TCEs will be required from a total of 45 properties

**12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

As shown in Figures 1a to 1c, the proposed H Line project is located within the City of Seattle, White Center (unincorporated King County), and the City of Burien.

**Proposed H Line Route by Street Network and Township, Section, Range**

| | | |
|---|---|---|
| Area 1 | North terminus/layover in South Lake Union to be determined; Westlake Avenue N, Lenora Street (SB)/Blanchard Street (NB), 3rd Avenue, Columbia Street (SB)/Cherry Street (NB), 1st Avenue S (to S Jackson Street) | Township 25N, Range 4E, Sections 30, 31, and 32<br>Township 24N, Range 4E, Sections 5 and 6 |
| Area 2 | 1st Avenue S (at S Jackson St), West Seattle Bridge, Delridge Way SW (to SW Andover Street) | Township 24N, Range 4E, Sections 5, 6, 7, 8, and 18<br>Township 24N, Range 3E, Section 13 |
| Area 3 | Delridge Way SW from SW Andover Street to SW Henderson Street | Township 24N, Range 3E, Sections 13, 24, 25 and 36 |
| Area 4 | SW Barton Place, SW Barton Street, 26th Avenue SW, SW Roxbury Street, 15th Avenue SW, SW 107th Street, and 16th Avenue SW | Township 24N, Range 3E, Section 36<br>Township 24N, Range 4E, Section 31<br>Township 23 N, Range 3E, Section 1<br>Township 23 N, Range 4E, Section 6 |
| Area 5 | 16th Avenue SW, Ambaum Boulevard SW, SW 150th Street (to Burien Transit Center) | Township 23N, Range 3E, Section 12<br>Township 23N, Range 4E, Sections 7, 18, and 19 |

**Figure 1a. Proposed H Line Project – Areas 1 and 2**

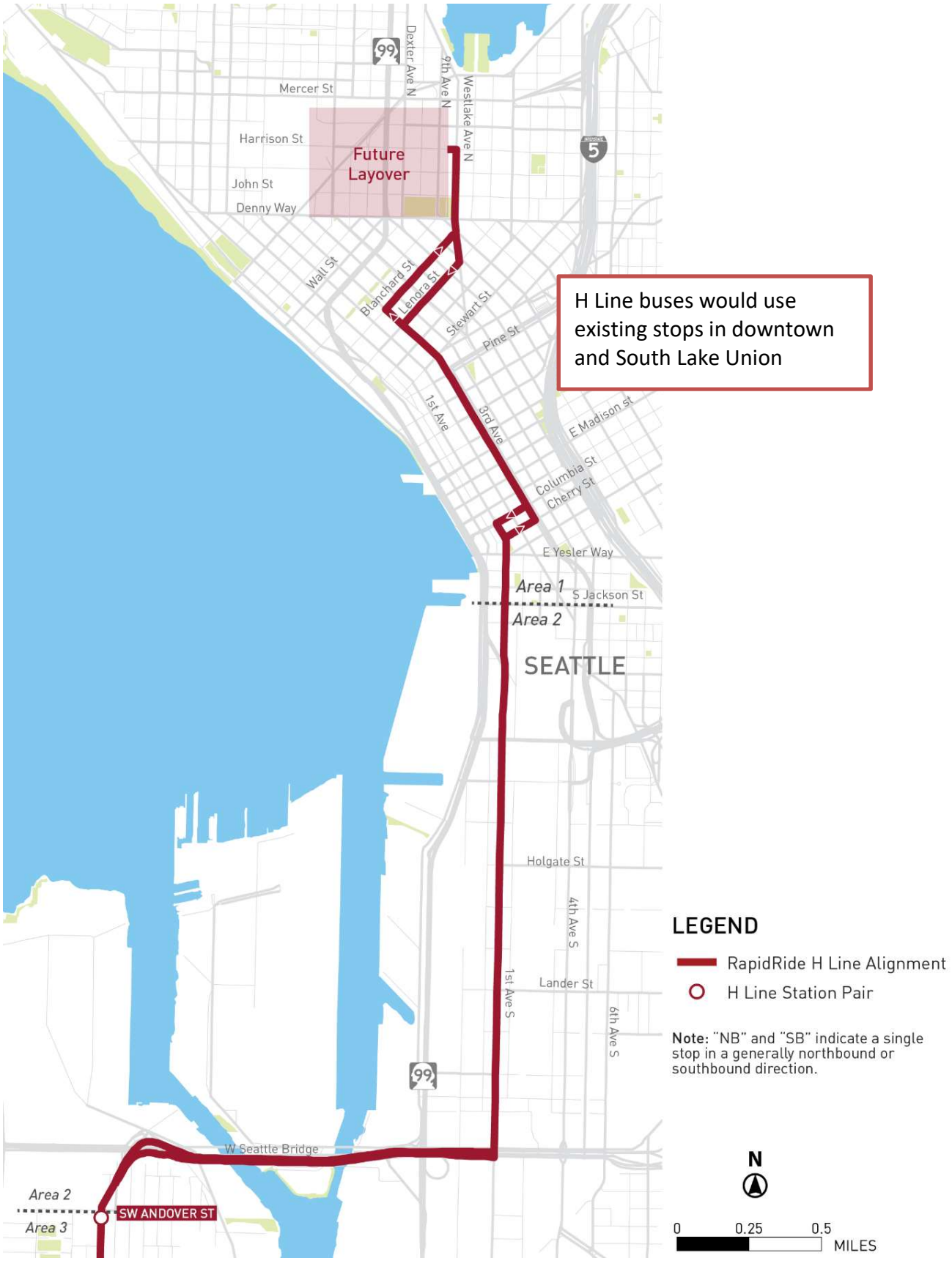


**Figure 1b. Proposed H Line Project – Area 3**

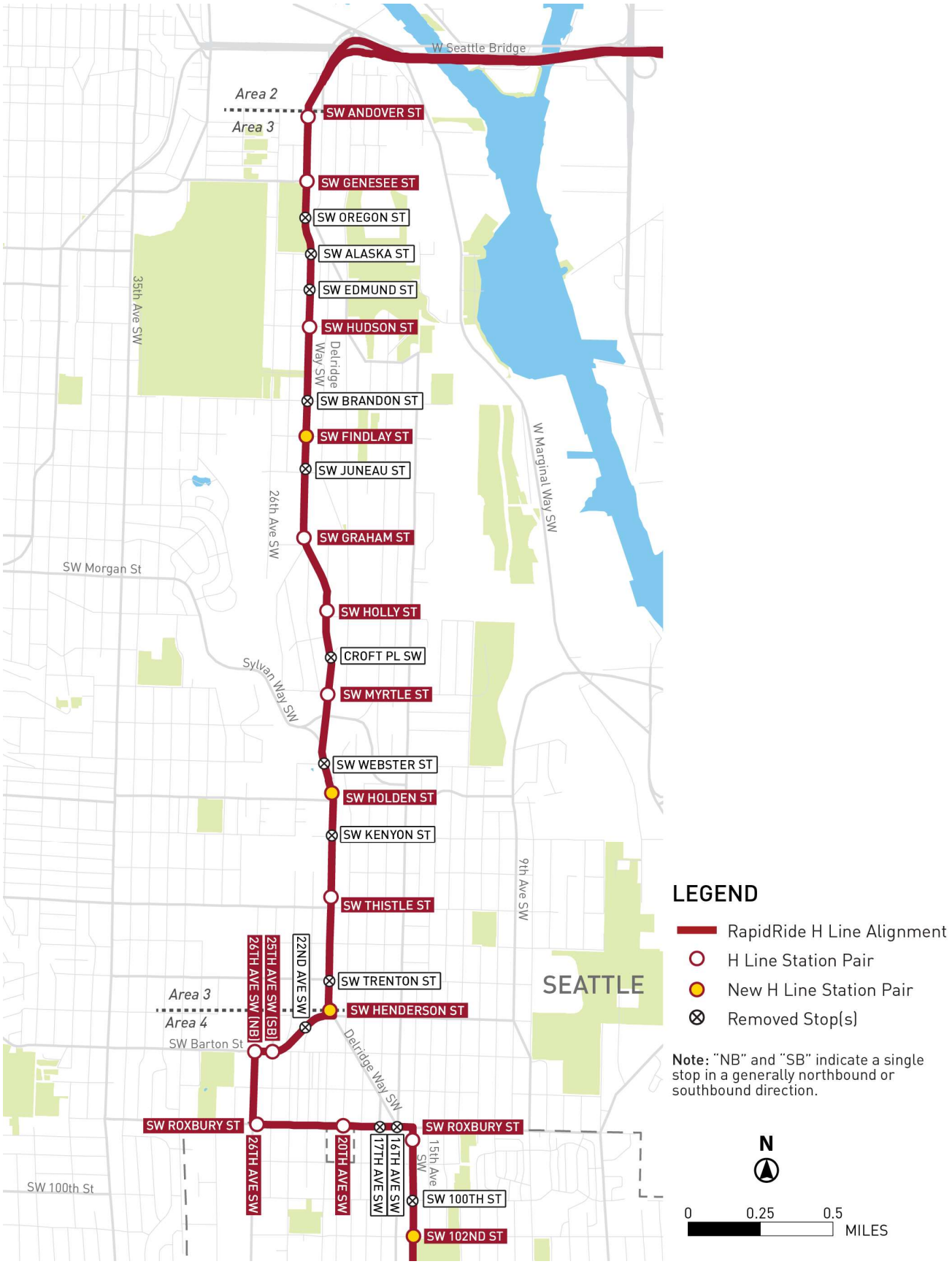
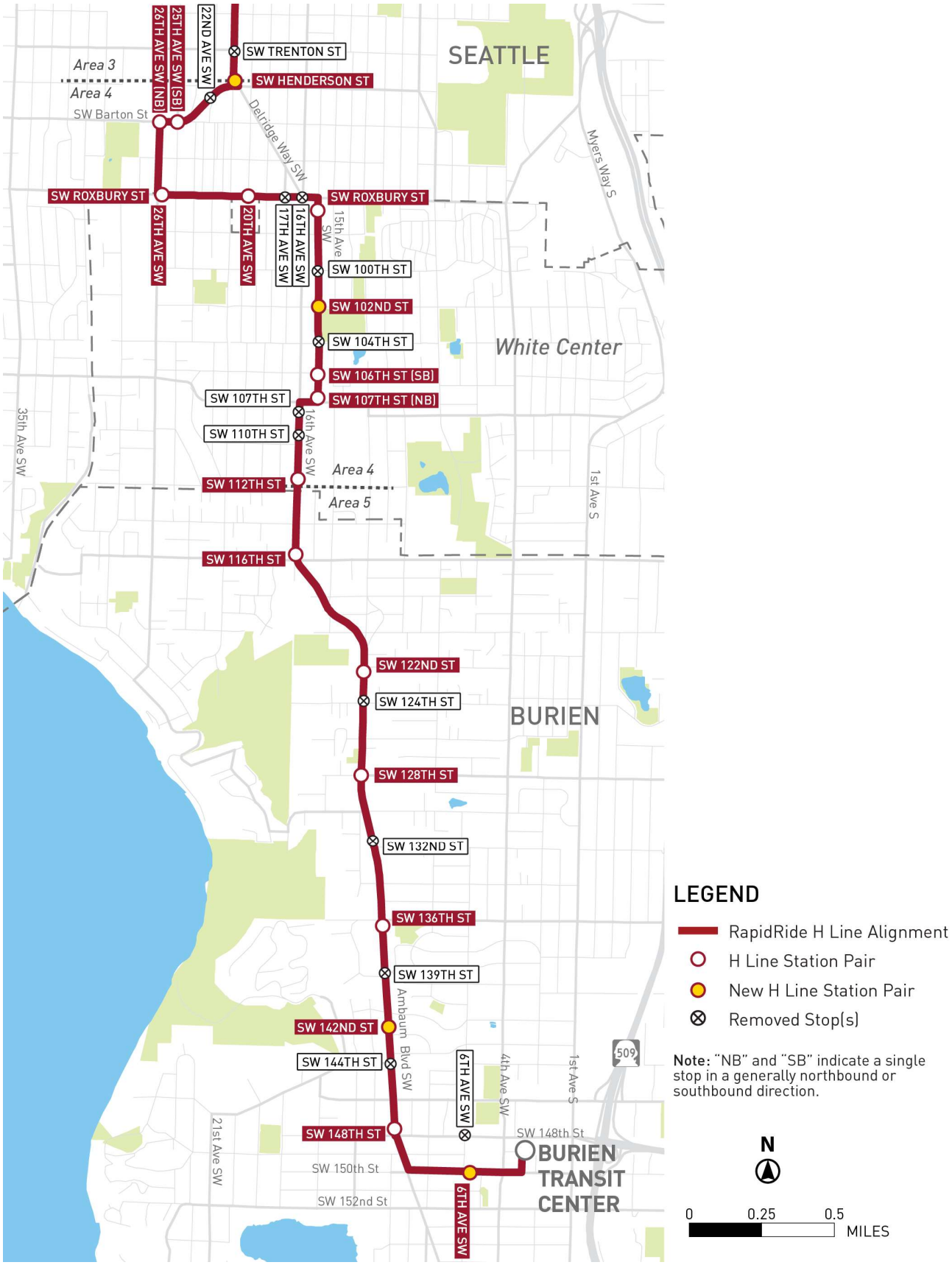


**Figure 1c. Proposed H Line Project – Areas 4 and 5**



# *B. Environmental Elements* [HELP]

## 1. *Earth* [help]

**a. General description of the site: (circle one): (Flat,) rolling, hilly, steep slopes, mountainous, other _____**

**b. What is the steepest slope on the site (approximate percent slope)?**

*Area 1*

Slopes along the project area within the right-of-way are generally less than 5 percent and slope to the northeast in the north end toward Lake Union and to the west in the downtown area toward Puget Sound.

*Area 2*

Slopes along the project area within the right-of-way are generally flat and less than 5 percent and slope to the west in the downtown and to the north in the Delridge North neighborhood toward Puget Sound.

*Area 3*

Slopes along the project area within the right-of-way are generally less than 5 percent and slope to the west. Steep slope areas are concentrated to the east of Delridge Way SW between SW Brandon Street and SW Graham Street and near the intersection of Delridge Way SW and SW Orchard Street.

*Area 4*

Slopes along the project area within the right-of-way are generally less than 5 percent and slope to the west toward Puget Sound. Steep slope areas are concentrated on SW Barton Place between 26th Avenue SW and 21st Avenue SW, and on 26th Avenue SW between SW Barton Street and SW Roxbury Street.

*Area 5*

Slopes along the project area within the right-of-way are generally flat and less than 5 percent and slope to the west toward Puget Sound.

**c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Since the project area is confined to relatively small spot improvements along the corridor, the Natural Resources Conservation Service soil survey for King County does not identify soils in the project area. The surface geology in the vicinity of project improvements indicate that soils generally comprise clay, gravel, sand, silt, and till. The project area is currently covered by impervious surfaces outside of planted areas along sidewalks. Agricultural lands are not located near the project and no agricultural soils will be removed by the project.

**d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

*Area 1*

According to the Seattle Municipal Code 25.09.020 Environmentally Critical Areas, the project is located within a potential liquefaction area to the south along 3rd Avenue between Yesler Way and S Jackson Street.

*Area 2*

The project is located within a potential liquefaction area along 3rd Avenue from S Jackson Street south to, and across, the West Seattle Bridge. Along Delridge Way SW down to SW Andover Street there are adjacent steep slopes and potential landslide hazard areas to the east.

*Area 3*

There are potential liquefaction areas to the west of Delridge Way SW between the West Seattle Bridge and SW Andover Street. Potential landslide hazard areas are located to the west of Delridge Way SW between SW Brandon Street and SW Orchard Street. Known slide areas along Delridge Way SW are located to the east between the West Seattle Bridge and SW Andover Street, SW Nevada Street and SW Genesee Street, and Croft Place SW and SW Willow Street. A Stability Improvement Area in this vicinity is located to the east of Delridge Way SW along 23rd Avenue SW north of SW Brandon Street. A concentration of slides has occurred, with 24 recorded deep-seated and shallow colluvial landslides. There are also potential landslide hazard areas along Delridge Way SW to the east between the West Seattle Bridge and SW Hudson Street and to the west between 25th Avenue SW and SW Orchard Street.

*Area 4*

There are potential liquefaction areas to the west of SW Barton Place and 26th Avenue SW between SW Henderson Street and SW 112th Street. Another potential liquefaction area is located east of 15th Avenue SW between SW Roxbury Street and SW 107th Street. A large area of peat that has been mapped by the City of Seattle underlies the H Line route along SW Roxbury Street near the Westwood Village Shopping Center and 26th Avenue SW. SDOT has identified that the existing pavement, which consists of concrete panels, needs to be replaced because the panels are flexing and shifting under the weight of heavy vehicles combined with the underlying softness of the peat layer.

*Area 5*

There are potential liquefaction areas to the west of Ambaum Boulevard SW between SW 112th Street and SW 116th Street. Another potential liquefaction area is east of Ambaum Boulevard SW between SW 126th Street and SW 130th Street. There are potential landslide hazard areas to the west of Ambaum Boulevard SW between SW 116th Street and SW 150th Street.

**e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

The purpose of excavation and fill will be to replace substandard or aging roadbed, sidewalks and curbs, and install new, ADA-compliant curb ramps, new drainage facilities and utility connections. Light and electrical utility poles will be relocated requiring new excavation for foundations of up to 25 feet.

*Area 1*

Area 1 will not require any ground-breaking or excavation; therefore no fill will be placed.

*Areas 2 and 3*

Areas of base repair in the roadway would generally require excavation of approximately 6 inches to 2 feet deep below ground surface. Drainage improvements would require excavation up to 12 feet below ground surface. The total disturbance area would be approximately 26.1 acres of which approximately 21.8 acres would be for base repair. Total excavation would be about 20,500 cubic yards.

*Areas 4 and 5*

Areas of base repair in the roadway would generally require excavation of approximately 2 feet below ground surface. Drainage improvements would require excavation or disturbance of up to 15 feet below ground surface. Signal or utility pole excavation would be up to 20 feet. The total area of excavation would be approximately 5.6 acres, and the volume of excavation for road repair would be 4,733 cubic yards.

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Disturbed portions of the project area could be susceptible to erosion during pavement and concrete removal operations, especially during rains and in locations with steeper slopes. Construction would be sequential along the project corridor, limiting the area of exposed soil at any given time. The risk is higher at locations where larger surface areas will be exposed during repaving. The contractors for Metro and the City of Seattle have requirements to implement erosion control measures prior to, and during construction. The overall risk of erosion is expected to be low.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

The project footprint is almost entirely composed of impervious surfaces, either roadway or sidewalk. In general, impervious and pervious surfaces (typically landscaped strips between sidewalk and curb) will be replaced in kind. The largest new areas of permeable surfaces will be new landscaped median islands along Delridge Way SW and new landscaped strips with trees and groundcover along Ambaum Boulevard SW. The amount of impervious surfaces would remain relatively unchanged following project completion. Area 3 will have 16 acres of new or replaced impervious surface, equal to 89 percent of the right-of-way within the project area. In Areas 4 and 5, new or replaced impervious areas would total approximately 83 percent of the total disturbed area. Spot improvements at intersections may have small areas of landscaping.

**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

The following general conservation measures and best management practices (BMPs) are applicable for the entire project area:

- The contractor(s) will provide a Stormwater Pollution Prevention Plan to the permitting jurisdiction for review and approval before beginning construction activities.
- The contractor(s) will provide a construction BMP plan and a Spill Prevention Plan for review and approval before beginning construction.

- All paving and utility work will be performed in accordance with the permitting jurisdiction's requirements and the requirements of the utilities involved.
- Catch basin filters will be used in catch basins located down gradient of the site if necessary to prevent sediments from entering the storm drainage system during construction.

*Areas 1, 2, and 3*

The contractor will be required to follow the City of Seattle's Standard Specifications for Road, Bridge and Municipal Construction and the Seattle Stormwater Code to control erosion in the project area.

*Area 4*

The contractor will be required to follow the 2016 King County Road Design and Construction Standards and the 2016 King County Surface Water Design Manual to control erosion in the project area.

*Area 5*

The contractor will be required to follow the 2016 City of Burien Public Works Road Design and Construction Standards and the 2016 King County Surface Water Design Manual to control erosion in the project area.

## *2. Air* [help]

**a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

*Construction*

The typical sources of emissions during construction of transportation projects include the following:

- Fugitive dust generated during the excavation, grading, and other construction activities.
- Engine exhaust emissions from construction vehicles, work vehicles, and construction equipment.
- Increased motor vehicle emissions associated with increased traffic congestions during construction.
- Volatile organic and odorous compounds emitted during asphalt paving.

The total emissions and timing of the emissions from these sources would vary depending on the phasing of the project and construction methods. Construction-related air quality impacts would be temporary and minimized through appropriate BMPs (see Section 2.C.).

*Operation*

All of King County, and hence, the project is located in a federally designated CO maintenance area. King County has completed the required 20-year maintenance period for CO. Therefore, there are no longer any conformity requirements in King County.

While it is expected that the project would increase waiting times at some intersections during peak hours, it is unlikely to result in a significant increase in vehicle emissions. According to the VISSIM study (a multi-modal traffic flow simulation) that was prepared for the corridor, travel times for the completed project for general purpose traffic would increase by only 5 to 8 percent. Travel time for buses are expected to decrease by 13 percent. Wait times at intersections may increase slightly, which would potentially increase idling times and could cause increased vehicle emissions (particularly during peak traffic times). However, this is not expected to be a significant contribution to regional air quality.

*GHG Emissions*

The project is estimated to result in approximately 32,700 metric tons of carbon dioxide equivalent (MTCO2e), which accounts for the manufacture of paving materials, construction related emissions, and maintenance of the pavement over its expected lifecycle. A conservative emissions factor of 50 MTCO2 per 1,000 square feet of new pavement was used for the analysis. This estimate is based on analysis of several different lifecycle assessments of the environmental impacts of roads, which looked at embodied emissions for streets. Chapter 173-441 WAC – Reporting of Emissions of Greenhouse Gases institutes mandatory GHG reporting for facilities that emit at least 10,000 MTCO2e per year in Washington. As noted above, the amount of MTCO2e emitted as a result of the project would be for the entire lifecycle of a road. Assuming a 25-year pavement lifecycle, the annual emission of GHGs resulting from the project would be approximately 1,308 MTCO2e, which is well below the reporting threshold. In addition, the project would likely reduce future vehicle trips by providing improved public transportation to the project area.

**b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

There are no off-site sources of emissions or odor that may affect the proposed project.

**c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

During construction in Seattle, impacts to air quality will be reduced and controlled through implementation of standard federal, state, and local emission control criteria, in accordance with the City of Seattle's Standard Specifications for Road, Bridge, and Municipal Construction. The standard specifications require that contractors maintain air quality to comply with the national emission standards for hazardous air pollutants.

Minimizing air quality impacts during construction in King County and Burien will require the contractor to comply with local standard specifications and will include such measures as spraying areas of exposed soil with water for dust control, periodically cleaning streets in the construction zone, and minimizing vehicle and equipment idling to limit exhaust emissions.

No other mitigation measures are proposed. As Metro acquires new zero-emission coaches to serve expanding service, and diesel coaches are retired, emissions from transit service will decline. Metro has a goal to have a zero-emission fleet by 2040.

## *3. Water* [help]

**a. Surface Water: [help]**

**1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

*Area 1*

The nearest waterbody is Puget Sound to the west.

*Area 2*

The nearest waterbodies are Puget Sound to the west and north, crossing over Duwamish Waterway on the West Seattle Bridge, and Longfellow Creek west of Delridge Way SW.

*Area 3*

Longfellow Creek flows within approximately 100 feet west of Delridge Way SW between SW Juneau Street and SW Graham Street and SW Webster Street and SW Holden Street. The City of Seattle classifies Longfellow Creek as a Riparian Corridor. The Washington Department of Ecology has Longfellow Creek listed as a 303(d) waterbody for bacteria, dissolved oxygen, and temperature.

*Area 4*

Fauntleroy Creek is more than 3,000 feet west of 26th Avenue SW. White Center regional stormwater detention pond is more than 600 feet east of 15th Avenue SW and Mallard Lake and its associated wetland are more than 450 feet east of 15th Avenue SW. Hicklin Lake is more than 2,000 feet east of 16th Avenue SW.

*Area 5*

Salmon Creek Ravine is located southwest of Ambaum Boulevard SW and its closest proximity to Ambaum Boulevard SW is approximately 35 feet. An unnamed pond situated between SW 129th Street and SW 130th Street is approximately 1,500 feet east of Ambaum Boulevard SW. Two unnamed streams flowing into Seahurst Park are approximately 500 feet and 800 feet west of Ambaum Boulevard SW, respectively. Miller Creek and Lake Burien are more than 1,000 feet southwest of the intersection of Ambaum Boulevard SW and SW 150th Street.

**2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Project work that will occur adjacent to surface waters is in Areas 3 and 5. No other project work would occur over or in surface waters.

*Area 1*

Puget Sound is about 500 feet to the west of 1st Avenue S.

*Area 2*

Puget Sound is about 600 feet to the west of 1st Avenue S and Longfellow Creek about 500 feet west of Delridge Way SW. The project crosses over Duwamish Waterway on the West Seattle Bridge.

*Area 3*

Existing stormwater in the project area partially outfalls to Longfellow Creek. Two culverts, one south of SW Graham Street and one north of 21st Avenue SW are within about 275 feet and 100 feet, respectively, of Longfellow Creek. Upgrading those culverts may require a Hydraulic Project Approval from the Washington Department of Fish and Wildlife. With BMPs during construction, there would be no impacts to Longfellow Creek or its Riparian Zone.

*Area 4*

White Center Pond is more than 600 feet east of 15th Avenue SW and Mallard Lake and its associated wetland is more than 450 feet east of 15th Avenue SW.

*Area 5*

Salmon Creek is located southwest of Ambaum Boulevard SW and its closest proximity to Ambaum Boulevard SW is approximately 35 feet. The proposed drainage would connect new pipes to the existing stormwater drainage system.

**3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

There would be no fill material placed in any surface waters or wetlands.

**4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

There will be no surface water withdrawals or diversions.

**5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Only Area 5 is near a 100-year floodplain to the east of Ambaum Boulevard SW, at the intersection with SW 142nd Street. The waterbody associated with the floodplain is the stormwater surge retention pond located inside Linde Hill Park.

**6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No waste materials will be discharged to any surface waters.

**b. Ground Water: [help]**

**1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

No ground water will be withdrawn for any purpose.

**2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged.

**c. Water runoff (including stormwater):**

**1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

*Area 1*

The right-of-way primarily drains to a combined sewer that typically drains to the West Point Sewage Treatment Plant but will discharge to Elliott Bay during heavy precipitation events. On 3rd Avenue between University Street and Cherry Street the street is served by partially separated sewer. A partially separated area means that some pipes are present that have both stormwater drainage and sanitary flow. Depending on the location any runoff in the stormwater only drainage system would

outfall to Duwamish Waterway and in the combined sewer as described above.

*Area 2*

The right-of-way primarily drains to combined sewer along 1st Avenue S between S Jackson Street and S Holgate Street and S Hanford Street and the West Seattle Bridge. The project area right-of-way drains to a partially separated sewer along 1st Avenue S between S Holgate Street and S Hanford Street, the West Seattle Bridge, and Delridge Way SW to SW Andover Street. Any runoff in the stormwater only drainage system would outfall to Duwamish Waterway.

*Area 3*

Runoff from Delridge Way SW drains to three receiving water basins, including the combined sewer system (referred to as Combined Sewer Overflow [CSO] basin), Longfellow Creek via public storm drain (PSD), and Longfellow Creek via capacity-constrained ditch, as follows:

- CSO Basin
  - Puget Boulevard SW to SW Findlay Street
  - SW Barton Street to SW Cambridge Street
- Longfellow Creek via PSD
  - SW Charlestown Street to Puget Boulevard SW
  - SW Holly Street to SW Webster Street
  - SW Holden Street to SW Cloverdale Street
  - SW Findlay Street to SW Graham Street
- Longfellow Creek via capacity-constrained ditch
  - SW Graham Street to SW Holly Street
  - SW Webster Street to SW Holden Street
  - SW Cloverdale Street to SW Trenton Street

Drainage conveyance in the north-south direction beneath Delridge Way SW is generally lacking. In most areas of the project site, stormwater flows along the gutter lines in Delridge Way SW to the next downgradient cross-street, where it typically (except for the areas in the CSO basin that outfalls to West Point Treatment Plant) enters cross-street drainage pipe systems that convey stormwater runoff westerly to discharge locations in Longfellow Creek via a series of catch basins and 12-inch and 18-inch stormwater pipe.

*Area 4*

Stormwater runoff from SW Henderson Street, SW Barton Place, SW Barton Street, 26th Avenue SW, and SW Roxbury Street is conveyed via a series curb and gutter flow, collected in catch basins, and conveyed via stormwater pipes ranging from 8-inch to 72-inch, and outfalls to Longfellow Creek. Stormwater runoff between 17th Avenue SW and 15th Avenue SW along SW Roxbury Street is collected via stormwater pipes ranging from 12-inch to 30-inch and conveyed into a combined sewer that outfalls into the Duwamish Waterway.

The area south of SW Roxbury Street and north of SW 112th Street is within the jurisdiction of unincorporated King County. Depending on the location, runoff in the drainage system in this area would flow either into the Puget Sound via creeks such as Salmon Creek or into the Duwamish Waterway.

*Area 5*

Runoff from north of SW 126th Street along 16th Avenue SW/Ambaum Boulevard SW is collected through catch basins and outfalls to Salmon Creek. Runoff along Ambaum Boulevard SW between SW

126th Street and SW 134th Street is collected through catch basins and outfalls to Mayfair Pond and Hermes Pond. Between SW 134th Street and SW 146th Street, stormwater runoff is conveyed along Ambaum Boulevard SW and outfalls to the stormwater retention pond in Linde Hill Park. South of SW 146th Street along Ambaum Boulevard SW and along SW 150th Street, stormwater runoff is collected and outfalls to the Puget Sound via Miller Creek.

**2) Could waste materials enter ground or surface waters? If so, generally describe.**

Construction equipment could release oil and grease to the ground and during rains, stormwater runoff from the site could convey that oil and grease to the stormwater system. In general, the construction areas are within right-of-way that is served by stormwater collection facilities that are designed to convey and treat runoff from the travelway.

Only very small patches of exposed soil are likely to be uncovered at any one time during project construction so the likelihood of waste materials entering groundwater at those locations is diminished. Concrete cutting would result in a slurry mixture that is vacuumed up as part of normal BMPs. A spill of this slurry could adversely affect the pH of the stormwater or groundwater. City of Seattle, Metro and City of Burien BMPs will be implemented to avoid or minimize the potential for waste materials to affect ground or surface waters.

**3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

Drainage patterns will not be affected. Proposed work would replace existing impervious surfaces. Stormwater control improvements in Areas 2 and 3 will be made per the Seattle Stormwater Code. In Areas 4 and 5, stormwater improvements will be consistent with the King County Surface Water Design Manual and 2016 City of Burien Public Works Road Design and Construction Standards as applicable.

**d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

*Areas 1, 2, 3, and part of Area 4 (Seattle)*

Prior to project construction, the contractor will be required to develop a Stormwater Pollution Prevention Plan that describes BMPs to be implemented to control stormwater and water materials flowing onto and from the site in accordance with the City of Seattle's Standard Specifications for Road, Bridge and Municipal Construction, and Seattle Stormwater Code. The project is designed to meet the current Seattle Stormwater Code requirements for flow control and water quality treatment.

*Area 4 (unincorporated King County) and Area 5 (within City of Burien)*

Metro's contractor will be required to develop a Stormwater Pollution Prevention Plan that describes BMPs to be implemented to control stormwater in accordance with the 2016 King County Road Design and Construction Standards and the 2016 King County Surface Water Design Manual. The project is designed to meet the 2016 King County Surface Water Design Manual for flow control and water quality treatment. Within the Burien city limits, a Stormwater Pollution Prevention Plan consistent with the 2016 City of Burien Public Works Road Design and Construction Standards will be required.

## *4. Plants* [help]

### a. Check the types of vegetation found on the site:

☒ Deciduous trees: ☐ Alder ☐ Maple ☐ Aspen ☐ Other: (identify)

☒ Evergreen trees: ☐ Fir ☐ Cedar ☐ Pine ☐ Other: (identify)

☒ Shrubs

☒ Grass

☐ Pasture

☐ Crop or grain

☐ Orchards, vineyards, or other permanent crops

☐ Wet soil plants: ☐ Cattail ☐ Buttercup ☐ Bulrush ☐ Skunk cabbage

☐ Other: (identify)

☐ Water plants: ☐ water lily ☐ eelgrass ☐ milfoil ☐ Other: (identify)

☐ Other types of vegetation: (identify)

Most land along the H Line corridor is developed, urban area or has been previously disturbed; therefore, most of the existing vegetation alongside corridor roadways is landscaping associated with local development or within roadway rights-of-way, such as street trees, grass or other groundcovers, and shrubs.

### b. What kind and amount of vegetation will be removed or altered?

In all areas, vegetation that will be affected consists of trees and grass or other ground covers in existing planting strips between sidewalks and curbs. Clearing and grubbing would occur along the project area near the edge of the roadway and for sidewalk improvements.

In Area 1, no vegetated areas would be affected. In Areas 2 and 3, there would be approximately 1.9 acres of disturbance to vegetation which would be restored. Approximately 30 trees along Delridge Way SW will need to be removed due to conflicts with proposed improvements. Minor tree trimming would occur within the project area to allow for project construction.

In Areas 4 and 5, 11 trees greater than 18 inches in diameter will be removed, one at 15th Avenue SW and SW Roxbury Street and 10 at Ambaum Boulevard SW and SW 128th Street. Thirty trees have been identified for protection during construction.

Trees removed in Seattle will be replaced in accordance with the City of Seattle Tree Protection Code mitigation requirements of 2:1. Within Areas 2 and 3, where approximately 30 trees will need to be removed, approximately 165 trees will be planted in new median islands and in planter strips along the corridor, which will also have grass. The 10 trees in the City of Burien would be replaced by landscaping along Ambaum Boulevard SW. Approximately 86 trees will be planted with 12,397 square feet (sf) of groundcover. Planting materials will include 93.5 cubic yards of bark or wood chip

mulch and 10,680 sf of seeding, fertilizing and mulching.

The total area of disturbed vegetation in Areas 4 and 5 will be 31,780 sf or less than 1 acre and the total vegetated area restored will be 41,625 sf (an acre equals 43,560 sf).

In all areas, the contractors will be required to protect adjacent vegetation and replant exposed areas per local requirements.

**c. List threatened and endangered species known to be on or near the site.**

No listed threatened or endangered plant species are known to be on or near the site.

**d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

No landscaping is proposed for Areas 1 and 2 because there will be no impacts.

*Area 3*

Along Delridge Way SW about 2.6 acres of planted median strip would be planted where there is currently roadway between SW Andover Street and SW Graham Street. Planting or replanting grass, trees, and applying woodchip mulch would also occur in several locations next to the curb. Tree trimming and removal activities will be coordinated with SDOT's Street Use and Urban Forestry division to ensure compliance with all appropriate rules and regulations regarding street trees. A Tree, Vegetation, and Soil Protection Plan will be prepared prior to project construction to ensure that existing street trees are not damaged during construction.

*Areas 4 and 5*

Landscaping will be consistent with code requirements, as applicable, in the cities of Seattle and Burien and in unincorporated King County. The project will result in a 9,844 sf increase in vegetated area in Areas 4 and 5.

Proposed landscaping includes approximately 86 street trees (Rocky Mountain Glow Maple, Vanessa Perion Parrotia, Metro Gold Maple, Emerald City Tulip Tree, and Crimson Spire Oak), and 12,397 sf of groundcover (8,662 sf Angelina Sedum/Mt. Vernon Laurel; 1,495 sf Wall Germander; and 2,240 sf Bishops Hat/Bigroot Geranium/Spurge). Planting material will include 93.5 cubic yards of bark or wood chip mulch and 10,680 sf of seeding, fertilizing and mulching.

The project will not remove or alter priority habitats, wetland, or riparian habitat, such as at Salmon Creek Ravine Park.

BMPs would be implemented to ensure plant material or soils brought to the site are free of invasive plants and pests, such as soil preparation and revegetation of disturbed areas with weed-free plant seed, native species, or non-native noninvasive species in accordance with City of Seattle, City of Burien and King County regulations.

Mitigation measures to preserve or enhance vegetation in the corridor include re-vegetation of areas disturbed by clearing and/or grading activities and protection of approximately 30 trees that could potentially be harmed during construction. Street tree replacement will meet the City of Seattle and City of Burien requirements.

**e. List all noxious weeds and invasive species known to be on or near the site.**

GIS analysis of noxious weed survey sightings in the area identified 21 species of noxious weeds, based on data from King County GIS open data. Those identified include Bighead Knapweed, Common Hawkweed (wall group), Common Reed, Dalmatian Toadflax, Diffuse Knapweed, Garlic Mustard, Giant Hogweed, Kochia, Lesser Celandine, Milk Thistle, Orange Hawkweed, Perennial

Pepperweed, Policeman's Helmet, Purple Loosestrife, Rush Skeletonweed, Shiny Geranium, Single Flowered Hawkweed (wall group), Spotted Knapweed, Tansy Ragwort, Yellow Hawkweed (meadow group), and Yellow Toadflax. Of these, the most common are Giant Hogweed, Dalmatian Toadflax, Spotted Knapweed, and Tansy Ragwort.

*Area 1*

There are no known noxious weeds or invasive species adjacent to the project. Noxious weeds or invasive species known to exist in the vicinity of the project include Buffalobur Nightshade and Spotted Knapweed.

*Area 2*

There are no known noxious weeds or invasive species adjacent to the project. Noxious weeds or invasive species known to exist in the vicinity of the project include Spotted Knapweed, Perennial Pepperweed, Dalmatian Toadflax, Yellow Toadflax, Kochia, and Shiny Geranium.

*Area 3*

There are no known noxious weeds or invasive species adjacent to the project. Noxious weeds or invasive species known to exist in the vicinity of the project include Giant Hogweed, Garlic Mustard, Spotted Knapweed, Dalmatian Toadflax, Diffuse Knapweed, and English Ivy.

*Area 4*

The noxious weeds or invasive species in Area 4 are Bighead Knapweed, Bohemian Knotweed, Diffuse Knapweed, Garlic Mustard, Giant Hogweed, Gorse, Lesser Celandine, Orange Hawkweed, Policeman's Helmet, Purple Loosestrife, Single Flowered Hawkweed (wall group), Spotted Knapweed, Tansy Ragwort, and Yellow Toadflax. Of these, the most common in Area 4 are Giant Hogweed, Spotted Knapweed, and Gorse.

*Area 5*

The noxious weeds or invasive species in Area 5 are Bighead Knapweed, Bohemian Knotweed, Diffuse Knapweed, Garden Loosestrife, Garlic Mustard, Giant Hogweed, Giant Knotweed, Gorse, Orange Hawkweed, Policeman's Helmet, Purple Loosestrife, and Spotted Knapweed. Of these, the most common in Area 5 are Garden Loosestrife, Purple Loosestrife, and Giant Hogweed.

*All areas*

Revegetation of disturbed areas with noninvasive species and weed-free seed, soil and mulch will minimize the spread of noxious weeds and invasive plants either by underground roots or windblown seeds.

## *5. Animals* [help]

**a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.**

Examples include:

**Birds**: ☐ Hawk ☒ Heron ☒ Eagle ☒ Songbirds

☒ Other: Crows, pigeons, doves, starlings, robins, gulls, and house sparrows are common urban species that could occur in the project area.

**Mammals**: ☐ Deer ☐ Bear ☐ Elk ☐ Beaver

☒ Other: Rodents, including mice, rats, squirrels, and raccoons are common urban species that could occur in the project area.

**Fish**: ☐ Bass ☒ Salmon ☒ Trout ☐ Herring

☐ Shellfish ☐ Other: (identify)

**b. List any threatened and endangered species known to be on or near the site.**

The project corridor potentially drains to Puget Sound and the Duwamish Waterway, waterbodies listed as critical habitat for several federally listed animal species including Chinook salmon, steelhead trout, and bull trout.

Western pond turtle (formerly pacific pond turtle) is the only state listed species that is mapped as being present near the project.

*Area 1*

No project activities are near to federal or state listed species critical habitat.

*Area 2*

There may be threatened or endangered species within the Duwamish Waterway under the West Seattle Bridge. These species include the following: steelhead trout listed as threatened in the Puget Sound distinct population segment; Chinook salmon listed as threatened in the Puget Sound distinct population segment; and bull trout listed as threatened.

*Area 3*

There are no known threatened or endangered species on or near the site. Steelhead trout was historically located in the adjacent Longfellow Creek and Chinook salmon have been observed north of SW Genesee Street in the creek. Coho salmon and cutthroat trout have also been identified in Longfellow Creek but are not listed as being threatened or endangered. The creek contains many fish barriers and there have been no recent fish observations south of the West Seattle Golf Course.

*Area 4*

Western pond turtle has been observed in Roxhill Park and the White Center Pond Natural Area; both of which would not be directly impacted by the project.

*Area 5*

Western pond turtle has been observed in the Salmon Creek ravine, which would likely receive some stormwater runoff from the project. There is no sustainable anadromous fish use in Salmon Creek. Salmon Creek was once inhabited by sea-run cutthroat and rainbow trout, and Coho, chum, and occasionally Chinook salmon. However, fish passage has been blocked since the 1940s.

**c. Is the site part of a migration route? If so, explain.**

The Puget Sound area is part of the Pacific Flyway for migratory birds. Bird species of concern include Bald Eagle, Black Turnstone, Clark's Grebe, Great Blue Heron, Lesser Yellowlegs, Long-billed Curlew, Olive-sided Flycatcher, Red-throated Loon, Rufous Hummingbird, Semipalmated Sandpiper, Short-billed Dowatcher, Western Screech-owl, and Whimbrel.

The Washington Department of Fish and Wildlife Priority Habitats and Species interactive map indicates that coho salmon and residential coastal cutthroat migration occurs in Longfellow Creek, near the intersection of Delridge Way SW and the West Seattle Bridge.

**d. Proposed measures to preserve or enhance wildlife, if any:**

Stormwater infrastructure design and BMPs avoid or mitigate potential impacts to fish habitat in the project vicinity.

For other wildlife, mitigation measures include city and county standard construction specifications for the proper handling of any contaminated soil that might be encountered during construction. Revegetation of disturbed areas with noninvasive species and weed-free seed, soil and mulch will retain or improve habitat areas for urban-adapted species. Noise during construction would be mitigated during construction in accordance with local regulations in each jurisdiction and BMPs to reduce potential impacts from noise that may be disruptive to people and wildlife.

**e. List any invasive animal species known to be on or near the site.**

The United States Geological Survey Nonindigenous Aquatic Species (NAS) query tool was used to evaluate invasive or indigenous species in the study area. New Zealand mudsnail was identified in the project area in Longfellow Creek, west of Delridge Way SW. No other invasive animal species are known to be on or near the project sites.

## *6. Energy and Natural Resources* [help]

**a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

After the project is completed, electricity will be provided by Seattle City Light to operate the shelter lighting, electronic signage, the electronic communication networks used by RapidRide coaches, street lighting and traffic signals along the project corridor. Gasoline and diesel fuel will be needed to operate maintenance vehicles and equipment, such as those used for Metro's shelter maintenance vehicles, and for street sweeping and asphalt patching. These energy uses might be slightly higher than under current conditions because some of the passenger facilities will be new.

In September 2017, Route 120 on average provided more than 9,200 trips each weekday, 5,600 on Saturdays, and 3,900 on Sundays. While the exact number of trips for the H Line is still being determined, bus frequency will increase. As a result, if the same types of buses were used for the H Line service as are used for Route 120 service, fuel consumption of the H Line would be higher than the current level. However, Metro's future fleet that will serve the H Line will be more fuel efficient than current vehicles. Metro's long range plans call for an all-electric fleet by 2040. Therefore, fuel consumption should be less than today.

Also, by improving transit reliability and frequency and by improving passenger amenities, Metro expects the increased transit ridership will reduce the number of single-occupancy vehicles in the corridor. Therefore, the decreased amount of fuel consumption due to the reduced number of single-occupancy vehicles should offset the increased amount of fuel consumption caused by the increased bus frequency.

**b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The only new structures proposed are bus shelters and their relatively low height of 10 feet and use of glass will not affect any off-site use of solar energy.

**c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Metro's long range plans call for an all-electric fleet by 2040 which will reduce operating energy use compared to existing conditions. No other energy conservation features are included in the plans of this project. during construction Metro and the City of Seattle's contractor will be required to follow BMPs, which includes avoiding idling equipment and vehicles when not in use, which reduces fuel usage.

## *7. Environmental Health* [help]

**a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Regular operation of the H Line would not be considered a health hazard, although there are always potential risks to people and property from traffic accidents, including releases of motor oil and diesel fuel.

The proposed H Line project corridor uses existing roadways that have been and continue to be traveled by many vehicles each day. Within these existing roadways possible contamination includes small leaks or spills of fossil fuels, other automobile fluids and metals from brake pads.

During construction, the presence of hazardous materials in the project corridor could potentially expose construction workers and the general public in the vicinity through direct contact, blowing dust, stormwater runoff, or vapors. In addition, there is the potential for exposure to toxic chemicals used during construction if they are handled incorrectly or there are spills from equipment.

**1) Describe any known or possible contamination at the site from present or past uses.**

A Hazardous Materials Review Technical Memorandum was prepared for the proposed H Line project to determine if any known contamination exists near the locations where excavation into soils will occur. The research included a search of local, state, and federal regulatory databases to identify sites that currently handle, or previously dealt with hazardous or regulated waste. Past business uses in the immediate project vicinity that could have resulted in contamination risk were researched. A site reconnaissance was conducted to field-verify the location of sites in the database query and to identify potential sources of contamination not in the database review.

*Area 1*

The database search revealed 40 adjacent or nearby properties having a status as either Awaiting Cleanup, Cleanup Started or No Further Action. Project activity in Area 1 is limited to non-intrusive work. Therefore, there is no possibility of encountering any contamination that may have migrated into the project area.

*Area 2*

The database search revealed 35 adjacent or nearby properties having a status as either Awaiting Cleanup, Cleanup Started or No Further Action. A review of available information about these sites identified minimal evidence of soil or groundwater contamination within the right-of-way that would

affect the project and since the improvements in Area 2 would be limited to the right-of-way no hazardous materials impacts are expected.

*Area 3*

The database search revealed 12 adjacent or nearby properties having status as either Awaiting Cleanup, Cleanup Started or No Further Action. A review of available information about these sites identified minimal evidence of soil or groundwater contamination within the right-of-way that would affect the project.

Within Area 3, excavations would be limited to road base repair, sidewalk work, and utility improvements and would generally range between 6 inches and 15 feet. Groundwater in the vicinity is anticipated to be about 5 to 25 feet below ground surface. Based on depth and location of planned excavation, and groundwater depth and gradient, it is not anticipated that the project would encounter contaminated soil or groundwater during construction.

*Area 4*

The database search revealed 9 sites located immediately adjacent to roadway along the H Line alignment having a status as either Awaiting Cleanup, Cleanup Started or No Further Action. The status for one contaminated site, at 9001 Delridge Way SW is listed as unavailable.

*Area 5*

The database search revealed 11 sites located immediately adjacent to roadway along the H Line alignment having status as either Awaiting Cleanup, Cleanup Started or No Further Action.

**2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

Numerous hazardous waste cleanup sites were identified immediately adjacent to, or in the vicinity of the proposed H Line corridor. There is no evidence that contaminants from these sites have reached or encroached on the project corridor. For those sites that have been identified as having groundwater contamination and that are located up gradient from areas of planned excavation, additional care and close adherence to project plans for dealing with unanticipated contamination will be followed. If during final design, it becomes apparent that the project would need to extend into properties identified as contaminated, property-specific Environmental Site Assessment work will be necessary and will be implemented.

**3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

Construction of H Line improvements would require the use of gasoline and diesel fuel for equipment and machinery, and paint for roadway striping and curbs. As with any construction project, there is a risk that such materials could be spilled or leaked during construction. Once constructed, hazardous chemicals would not be stored, used or produced at the H Line project elements. Over time, small spills could occur from buses and other vehicles that operate along corridor roadways. During on-going roadway operations, the stormwater treatment facilities and additional landscaping that would be constructed along the H Line would collect and retain pollutants deposited on roadways from vehicular traffic.

**4) Describe special emergency services that might be required.**

The project is not expected to require special emergency services.

**5) Proposed measures to reduce or control environmental health hazards, if any:**

A Health and Safety Plan will be developed by the construction contractor before work commences. This plan will provide information on any hazardous materials that may be associated with project construction and will outline safety procedures for handling any of these substances. Adherence to BMPs and the Spill Prevention Plan would minimize the potential for spills during construction.

In the City of Seattle, the contractor will follow the City of Seattle Standard Specifications for Road, Bridge, and Municipal Construction, which give protocols for responding to an unexpected discovery of contaminated material during project construction. However, encountering contaminated material is not anticipated since there would be minimal ground disturbance during construction and no known contamination is located within the right-of-way.

The following measures will be applied to reduce or control environmental health hazards during construction:

- Develop Health and Safety Plan, to be prepared by the construction contractor, for construction activities. The Health and Safety Plan shall be read and signed by all onsite workers accessing the site. The Health and Safety Plan would identify potential contaminates of concern, required personal protective equipment, and emergency response procedures.
- Prior to construction, develop procedures for all project improvements areas to identify, characterize, manage, handle, store, and dispose of contaminated soil and groundwater if encountered during construction activities
- Dispose of contaminated material generated during construction at a facility permitted to accept the material and follow the facility's applicable guidance
- Prior to acquiring property for additional public right-of-way related to H Line project improvements, conduct property-specific Environmental Site Assessments for identified clean-up sites
- Contractor will be responsible for developing construction stormwater BMPs, Stormwater Pollution Prevention Plan and Spill Prevention Plan and will follow standard protocol in the event of the discovery of contaminated material during construction

## *b. Noise*

**1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

A Noise and Vibration Assessment was prepared for the proposed H Line project. While all of the proposed H Line project areas (Areas 1 through 5) were considered in the noise assessment, the analysis focused on Areas 3, 4, and 5 where project-related physical improvements would occur.

Existing noise levels along the corridor were estimated and modeled using existing traffic volumes provided in the H Line Traffic Noise Study and assessment methods provided in Chapter 5.2.2 of the FTA Manual. The FTA's methodology provides an industry standard for how to evaluate noise and vibration from buses. AM and PM Peak hour traffic levels and vehicle mix data were obtained from the H Line Traffic Noise Study for all available roadway segments. For all vehicle types and traffic

volumes the existing posted speed limits were modeled.

The predominant noise source along the H Line alignment is vehicular traffic. Intermittent noise from aircraft flying to Sea-Tac International Airport and local businesses contribute to the overall noise environment. Within the Industrial District in Area 2, noise from rail, commercial vehicle and boat traffic is also common. Most of the project route includes existing bus service and a typical mix of vehicles, including heavy trucks. Existing noise levels along the corridor are estimated to be between 60 and 67 "A-weighted" scale decibels (dBA), which approximates the average human ear's sensitivity to sounds. A noisy urban residential area close to a major arterial highway would average around 70 dBA. These sources of noise would not affect project construction or operation.

**2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

*Construction Impacts*

Construction activity would be phased and construction zones would be moved along the corridor which would result in temporary construction noise impacts. Project construction would be carried out in several discrete steps, each with its own mix of equipment and, consequently, its own noise characteristics. The most prevalent noise source at the project construction site would be internal combustion engines, such as from earth-moving equipment, material-handling equipment, and stationary equipment. Mobile equipment operates in a cyclical fashion while stationary equipment (e.g., generators and compressors) operates at sound levels that are constant over time. Because trucks would be present during most construction phases and would not be confined to the project site, noise from trucks would be expected to affect more receptors.

Maximum noise levels from construction equipment would range from 69 to 98 dBA at 50 feet. Several residential areas and commercial businesses along the H Line alignment would experience daytime construction noise. Because various pieces of equipment would be turned off, idling, or operating at less than full power at any given time and because construction machinery is typically used to complete short-term tasks at any given location, average daytime noise levels would be expected to be less than the maximum noise levels.

The City of Seattle's construction noise thresholds are the most stringent; the City of Burien does not provide maximum noise levels while unincorporated King County includes maximum noise level thresholds.

*Operating Impacts*

To determine potential increases in long-term noise levels, future traffic volumes, including the increased bus frequency of the H Line, were modeled. The noise assessment used project-specific information from operations including the type of bus vehicle, number of bus operations per hour, and bus speed. The operational assumptions used for the H Line, consistent with those used in the service plan, include an increase in peak hour bus operations and a reduction in off-peak hour bus operations. The current posted speed limits were used. The study analyzed a 60-foot articulated bus with a hybrid propulsion system of diesel and battery electric.

The existing noise levels were compared to the predicted noise levels with the H Line to identify if the project's predicted noise level results in a noise increase. Because there is currently bus service operating along the proposed H Line alignment, including at the existing Burien Transit Center, the roadway modifications and increased service proposed with the H Line would not result in a

significant increase in noise levels. The assessment determined that, for almost all of the roadway segments evaluated, the H Line would either not result in an increase in the existing noise level or would result in an increase or decrease of 1 dBA.

Currently, there is no existing bus service along SW 150th Street, which is included in the south end of the proposed H Line project to access the Burien Transit Center. H Line buses traveling along SW 150th Street would be considered a new noise source; however, noise levels are predicted to remain below the noise impact threshold. The nearest noise-sensitive land use to the Burien Transit Center are residences located on SW 148th Street. Residences in this area are located as close as 150 feet to proposed project improvements at the Burien Transit Center. Existing noise levels at these homes are expected to be approximately 64 dBA (Ldn). Future traffic noise levels that include project improvements are predicted to be 64 dBA (Ldn), with no increase to existing noise levels resulting in no noise impacts.

**3) Proposed measures to reduce or control noise impacts, if any:**

*Construction Mitigation*

The project will comply with the local jurisdiction's Noise Control Ordinance. Within the City of Seattle, noise from construction equipment is allowed between 7 AM and 10 PM weekdays, and 9 AM to 10 PM on the weekends. If there is a need for work outside these times to minimize traffic impacts, SDOT will request a noise variance permit to allow some construction work at night.

Construction activities in King County and Burien would comply with the respective noise regulations. If construction noise levels were expected to exceed the nighttime thresholds, Metro's H Line project contractor would be required to follow noise variance requirements within unincorporated King County and to coordinate with the City of Burien. The Contractor may be required to reduce construction noise levels to the community through the development and implementation of a noise control plan.

The following are noise-control measures that could be incorporated into the project's construction phase:

- Establish construction hours and construction activity noise level emission criteria
- Equip each internal combustion engine used on the project with a muffler of a type recommended by the manufacturer
- Limit noisier activities involving large machinery to daytime hours as practical
- Effective mufflers will be installed and maintained on equipment
- Equipment and vehicle staging areas will be located as far from residential areas as possible
- Idling of power equipment will be minimized

*Operating Mitigation*

Because the noise analysis anticipated very little or no increase in noise or vibration levels, no mitigation measures should be needed to reduce or control long-term operational noise.

## *8. Land and Shoreline Use* [help]

**a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

The project area consists of paved road, partial sidewalks, and existing stormwater infrastructure and utilities under the road. There are utility poles, street trees and other landscaping in some areas of the right-of-way. The project consists of repairs and modifications within existing right-of-way that may result in temporary effects to adjacent land uses during construction. Temporary construction easements may be needed from adjacent property owners. Other temporary effects may include air and noise pollution and traffic delays and detours. The completed project is expected to be beneficial to surrounding land uses by improving right-of-way pavement and safety conditions.

*Area 1*

Land uses in South Lake Union are primarily multifamily and commercial and densities generally increase with proximity to downtown. Dense commercial development is prominent along 3rd Avenue in the central business district and in the Pioneer Square neighborhood. Older and lower rise commercial land uses are located along 1st Avenue S approaching Area 2 at S Jackson Street.

The only improvements in Area 1 would be for the new layover facility in South Lake Union, at a location to be determined.

The shoreline environments in Area 1 are located along the shoreline of Lake Union and Elliott Bay. The shoreline environments closest to the project area along Lake Union are designated as Urban Commercial, Conservancy Waterway, and Conservancy Management. However, none of the project area is within the shoreline environments. The closest proximity between the project area and the shoreline environments of Lake Union, measuring from Valley Street to Harrison Street along Westlake Avenue N, is at least 1,200 feet.

The shoreline environments closest to the project area along Elliott Bay are designated as Urban Harborfront. However, none of the project area is within the shoreline environments. The closest proximity between the project area and the shoreline environments of Elliott Bay, measuring from Alaskan Way S to 1st Avenue S along S Washington Street, is at least 250 feet.

*Area 2*

This section travels through mostly industrial areas south of downtown, passing through the stadium district and adjacent commercial areas along 1st Avenue S, and a short way along Delridge Way SW to SW Andover Street. Industrial and residential areas predominate in North Delridge. The road repaving improvements in Area 2 would have no permanent effects on adjacent land uses but would disrupt traffic patterns during construction.

*Area 3*

Delridge Way SW supports a diverse mix of land uses, including residential neighborhoods and a variety of businesses fronting the corridor. There are industrial areas in the north and adjacent parks along the corridor. Pockets of walkable urban street life can be found most notably in the area between SW Juneau Street and SW Brandon Street and SW Cambridge Street and SW Roxbury Street. The corridor also serves the eastern edge of the Westwood-Highland Park Residential Urban Village—one of Seattle's designated residential urban villages. This development node includes the Westwood Village Shopping Center, parks, schools, commercial, and residential uses.

*Area 4*

Area 4 consists of both the City of Seattle and unincorporated King County. SW Barton Street borders Westwood Village and pedestrians often travel between Westwood Village and the surrounding neighborhood. Urban street life can also be found in the area between SW Cambridge Street and SW Roxbury Street. The land use along SW Roxbury Street is a mixture of residential, institutional, and

commercial uses. The land use on 15th and 16th Avenues SW is a mixture of residential, institutional, commercial, and a memorial park.

The shoreline environment closest to the project area is Mallard Lake and the Shoreline Designation is Other Water Bodies. The closest proximity between the project area and Mallard Lake, measuring from 15th Avenue SW to Mallard Lake along SW 104th Street, is at least 450 feet.

*Area 5*

In Area 5 the Salmon Creek Ravine is west of Ambaum Boulevard SW. The land use between SW 112th Street and SW 116th Street is primarily commercial, while the land use between SW 116th Street and SW 120th Street is primarily residential. South of SW 120th Street, the residential density begins to increase, and parks, commercial, and institutional uses begin to appear more frequently. Residential density continues to increase with proximity to downtown Burien. The H Line corridor continues to travel from Ambaum Boulevard SW to SW 150th Street. The King County District Court, Burien Town Plaza, and assisted living facility Merrill Gardens at Burien are located along SW 150th Street.

The shoreline environment closest to the project area is Lake Burien and the Shoreline Designation is Shoreline Residential. The closest proximity between the project area and Lake Burien, measuring from the intersection of SW 150th Street and Ambaum Boulevard SW, is at least 1,000 feet.

**b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

The project corridor has generally not been used as working farmlands since the early part of the 1900s. No commercial agricultural or forest land will be converted or otherwise affected by the H Line project.

**1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:**

Areas 1-5 of the H Line alignment are all within urban areas and no working farm or forest lands exist nearby that could affect the project.

**c. Describe any structures on the site.**

The project area consists of roadway used primarily for vehicular traffic. Sidewalks exist throughout most of the project area. Numerous commercial, public, and residential structures are located adjacent to the project right-of-way, and structures along the right-of-way corridor include utility poles with street lights and signal systems, and underground structures for drainage, electric, water and other utilities.

**d. Will any structures be demolished? If so, what?**

Bus shelters and other equipment will be removed from bus stops that are planned to be closed or relocated as part of the project. Utilities and signage may be relocated or removed during

construction.

**e. What is the current zoning classification of the site?**

*Area 1*

The project area is designated as Seattle Mixed (SM-SLU 85-280), Seattle Mixed (SM-SLU 240/125-440), Downtown Mixed Commercial (DMC 240/290-440), Downtown Office Core 2 (DOC2 500/300-550), Downtown Mixed Residential/Residential (DMR/R 145/65), Downtown Retail Core (DRC 85-170), Downtown Office Core 1 (DOC1 U/450-U), Pioneer Square Mixed (PSM-100-130), and Pioneer Square Mixed (PSM-100) along the corridor.

*Area 2*

The project area is designated as Pioneer Square Mixed (PSM-85-120), Industrial Commercial (IC-65), General Industrial 2 (IG2 U/85), General Industrial 1 (IG1 U/85), Residential Single Family 9600 (SF 9600), Lowrise 1 (LR 1), Commercial 1 (C1-40), and Commercial 1 (C1-65) along the corridor.

*Area 3*

The project area is designated as Commercial 1 (C1-40), Commercial 1 (C1-65), Neighborhood Commercial 1 (NC1-40), Lowrise 1 (LR1), Lowrise 2 (LR2), Residential Single Family 5000 (SF 5000), Neighborhood Commercial 2 (NC2P-40), and Lowrise 3 (LR3) along the corridor.

*Area 4*

The project area is located both within the City of Seattle and unincorporated King County. The project area within the City of Seattle is designated as Residential Small Lot (RSL), Low Rise 1 (LR1), Low Rise 2 (LR2), Low Rise 3 (LR3), Neighborhood Commercial 3 (NC3-75), Residential Single Family 5000 (SF 5000), and Neighborhood Commercial 2 Pedestrian 55 (NC2P-55) along the corridor. The project area within unincorporated King County is designated as Residential 6 (R-6), Residential 24 (R-24), Community Business (CB), Industrial (I), Residential 48 (R-48), and Office (O) along the corridor.

*Area 5*

The project area is located within the City of Burien. The project area is designated as Community Commercial 2, Residential Multi-Family 24, Neighborhood Center, Residential Single-Family 7,200, Residential Multi-Family 12, Office, Residential Multi-Family 48, Intersection Commercial, Residential Multi-Family 18, Community Commercial 1, and Downtown Commercial along the corridor.

**f. What is the current comprehensive plan designation of the site?**

*Area 1*

The project area is designated as Urban Center and City-Owned Open Space along the corridor.

*Area 2*

The project area is designated as Urban Center, Manufacturing/Industrial Center, Multi-Family Residential Areas, Commercial Areas, and City-Owned Open Space along the corridor.

*Area 3*

The project area is designated as Commercial/Mixed Use Areas, Multi-Family Residential Areas, City-Owned Open Space, Single Family Residential Areas, and Residential Urban Village along the corridor. The Westwood-Highland Park Residential Urban Village is located to the south between SW Thistle Street and SW Roxbury Street.

*Area 4*

The project area is located within both the City of Seattle and unincorporated King County. The project area is within the Westwood-Highland Park Residential Urban Village inside the City of Seattle and the designated land use on the comprehensive plan is Residential Urban Village along the corridor. The project area within unincorporated King County is designated as Community Business Center, Urban Residential Medium 4-12 dwelling unit/acre, Unincorporated Activity Center, and King County Open Space System along the corridor.

*Area 5*

The project area is located within the City of Burien. The project area is designated as Community Commercial, Neighborhood Commercial, Moderate Density Multi-Family Neighborhood, Moderate Density Residential Neighborhood, Low Density Multi-Family Neighborhood, Office, High Density Multi-Family Neighborhood, Intersection Commercial, Public Parks/Schools/Recreation/Open Space, and Downtown Commercial along the corridor.

**g. If applicable, what is the current shoreline master program designation of the site?**

No shoreline designations apply to any of the project areas.

**h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

*Area 1*

According to the Seattle Municipal Code 25.09.020 Environmentally Critical Areas, the project is located within a potential liquefaction zone to the south along 3rd Avenue between Yesler Way and S Jackson Street.

*Area 2*

The project is located within a potential liquefaction area along 3rd Avenue between S Jackson Street and down to and across the West Seattle Bridge. The Duwamish Waterway under the West Seattle Bridge and the area to south of the bridge in North Delridge are considered fish and wildlife habitat conservation areas. Along Delridge Way SW down to SW Andover Street there are adjacent steep slopes and potential landslide hazard areas to the east.

*Area 3*

The project is located in potential liquefaction areas, steep slopes, and potential landslide hazard areas along Delridge Way SW. Longfellow Creek flows within approximately 100 feet of the existing edge of pavement between SW Juneau Street and SW Graham Street. Environmentally Critical Areas along Longfellow Creek include a floodplain, riparian zone, and wetlands.

*Area 4*

According to King County iMap's Environmentally Sensitive Areas dataset, the portion of the corridor that traverses Area 4 does not cross any critical areas.

*Area 5*

The project crosses the Salmon Creek stream buffer at the intersection of Ambaum Boulevard SW and SW 120th Street. Salmon Creek is classified by the City of Burien as a Type F stream, and as such has a 100-foot buffer. The Salmon Creek Ravine is designated as a landslide hazard area; however, the project would be located outside of the critical area boundaries.

The project would abut Category 2 critical aquifer recharge areas at the intersection of Ambaum Boulevard SW and SW 121st Place and to the east of the corridor between SW 126th Street and SW 128th Street. Between SW 139th Street and SW 142nd Street, the project would cross a floodplain and aquifer recharge area.

**i. Approximately how many people would reside or work in the completed project?**

The H Line project provides a bus rapid transit service along the corridor. The project does not propose to construct dwelling units or offices.

**j. Approximately how many people would the completed project displace?**

The H Line project does not eliminate dwelling units or offices and therefore the completed project would not displace any existing residents.

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

The H Line project allows residents currently residing in areas with limited public services to areas with public services and would not generate displacement impacts.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The H Line project is proposed for an existing, heavily traveled transportation corridor with existing transit service by Metro's Route 120. The adjacent land uses would be accustomed to transit service (except for a short distance along SW 150th Street in Burien) and existing and future development would be served by the H Line. Therefore, nothing in the proposed project is anticipated to be incompatible with any existing or future land uses.

The project also improves the aesthetics of the roadway corridor by increasing the landscaping within the center and along the sides of Delridge Way SW in Area 3, while maintain existing community character, with the design of transit stations and amenities.

*Land Use Plan Compatibility for Areas 1, 2, and 3*

The project area is designated as a High Capacity Transit and RapidRide corridor in the Seattle Transit Master Plan (Updated 2016). The project is part of the Frequent Transit Network that connects the City's urban centers and villages with high-quality transit service within a short walk of most residents.

The project area is also in the Seattle Priority Investment Network (PIN) as Arterial Street in the Pedestrian Master Plan (Updated 2019). The PIN's foundation are walksheds that serve as important walking routes to K-12 public schools and frequent transit stops in the city. This project is consistent with the plan's strategies and actions to improve conditions both along the roadway and crossing the roadway.

The Seattle Bicycle Master Plan (2014) has the project area designated as recommended protected bicycle lane between the West Seattle Bridge and Sylvan Way SW as well as parallel neighborhood greenway connections. There is no designation between Sylvan Way SW and SW Roxbury Street. After project outreach and design considerations these recommendations were altered as described in Section A.11.

*Land Use Plan Compatibility for Area 4*

The project area is included in METRO CONNECTS (Adopted 2017), King County's long range transit vision plan, as part of the 600 miles of frequent service network. The goal is to provide bus service at least every 10 minutes most of the day and at least every 15 minutes when demand decreases, to

carry passengers to most major destinations within King County. The implementation of this project is consistent with the long term vision stated in METRO CONNECTS.

King County identified the provision of "opportunities for people to make active transportation choices by increasing the convenience, accessibility, safety and comfort of taking transit, walking and bicycling" as of one of county priorities in the King County Comprehensive Plan (Updated 2018). The plan further states that in unincorporated areas of King County, "fostering safe walking and bicycling routes to schools and other areas where school-aged children regular assemble" and "providing safe routes to transit" as two of the highest priorities when identifying, planning, and programming nonmotorized improvements. Mount View Elementary School is less than 0.25 miles east of 15th Avenue SW along SW 107th Street. The construction of new sidewalks, channelization islands, and crosswalks along the corridor is consistent with the county's priorities. In addition, with respect to providing safe routes to cyclists, Metro had conducted public outreach and design considerations were altered as described in Section A.11.

*Land Use Plan Compatibility for Area 5*

The Burien Transportation Master Plan (2012) has most of the project area designated as transit priority routes, which include corridors that have a high demand for transit service and/or current high frequency of service. In particular, with respect to Ambaum Boulevard SW, the Transportation Master Plan specifically mentions to incorporate goals such as prioritizing shelters and benches at stops along Ambaum Boulevard SW, ensuring that crosswalks are located at most stops, providing sidewalks connecting to nearby households and businesses, and adding Transit Signal Priority at congested intersections to improve reliability of transit service. Therefore, this project is consistent with the plan's visions to improve transit's speed and reliability and pedestrian safety.

The Burien Pedestrian and Bicycle Facilities Plan (2004) has identified both Ambaum Boulevard SW and SW 150th Street as high priority pedestrian and bicycle projects to be implemented to address the high pedestrian/bicycle accident locations. Regarding pedestrian safety improvements, this project is consistent with the plan's visions to improve conditions both along the roadway and crossing the roadway. With respect to bicycle safety improvements, after project outreach and design considerations, the proposed work was altered as described in Section A.11.

**m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:**

No mitigation measures are proposed because no impacts to those lands will occur.

## *9. Housing* [help]

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

No housing units would be provided.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

No housing units would be eliminated.

**c. Proposed measures to reduce or control housing impacts, if any:**

The H Line project would not create any housing impacts, and therefore no measures are proposed to reduce or control housing impacts.

## *10. Aesthetics* [help]

**a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The project would primarily construct and improve roadway and sidewalk at ground level. Bus shelters would be approximately 10 feet high. The project would not construct any structures higher than signals for traffic, buses, and pedestrian. Bus shelters are constructed of painted steel and glass.

**b. What views in the immediate vicinity would be altered or obstructed?**

Because the corridor already contains above-ground structures such as bus stops, utility poles and traffic signals, no views would be materially altered by the project.

**c. Proposed measures to reduce or control aesthetic impacts, if any:**

No impacts are anticipated so no measures are proposed.

## *11. Light and Glare* [help]

**a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

For temporary impacts, if any construction work were to occur after daylight hours, the contractor might use portable lighting to illuminate work areas.

Lighting at the bus shelters for H Line has not yet been designed. Typical bus stop area lighting would be for pedestrian safety and visibility. New pedestrian lighting is proposed between SW Henderson Street and SW Myrtle Street and new and upgraded flashing crossing beacons are proposed at SW Graham Street, SW Findlay Street, and SW Hudson Street. There would also be upgraded pedestrian, bus and traffic signals. Relocated or new street lights will have LED fixtures in accordance with local jurisdiction standard specifications.

The bus shelter materials may reflect light temporarily similar to existing shelters but generally the surfaces are small enough as to not be a hazard. Lighting at bus stops will be consistent with Metro's standards for safety and security and will be designed to not spill over onto adjacent properties as much as possible.

**b. Could light or glare from the finished project be a safety hazard or interfere with views?**

No light or glare from the project would interfere with views or be a hazard. The bus shelter materials may tend to reflect light temporarily similar to existing shelters but generally the surfaces are small enough as to not be a hazard. Lighting at shelters will be scaled to pedestrian safety and security levels and designed to not spill over onto adjacent properties as much as possible without compromising safety.

**c. What existing off-site sources of light or glare may affect your proposal?**

No existing off-site sources of light or glare would affect the project.

**d. Proposed measures to reduce or control light and glare impacts, if any:**

No impacts are anticipated so no measures are proposed.

## *12. Recreation* [help]

### a. What designated and informal recreational opportunities are in the immediate vicinity?

*Area 1*

Denny Park is the City's oldest park and contains the department's central offices on the west end of park. The park contains an off-leash area, children's play area, and host special events throughout the year. Adjacent and nearby parks to the project include the following: Lake Union Park located to the north along south shore; Bell Street Park located parallel to Blanchard Street to northwest; Westlake Park located parallel on 4th Avenue to east; Pioneer Square located adjacent to east at Yesler Way; and Occidental Square located to the east at S Washington Street. There are bicycle lanes on 9th Avenue N and Dexter Avenue N at the north end of the project.

*Area 2*

The Duwamish River Trail is located under the West Seattle Bridge in North Delridge and there are neighborhood greenways adjacent to Delridge Way SW.

*Area 3*

The corridor provides access to several greenspaces, including parks, greenbelts, and trails. The following parks are located adjacent to Delridge Way SW: Delridge Playfield, Delridge Community Center, Puget Boulevard, Longfellow Creek Greenspace, and Delridge and Myrtle. The Seattle P-Patch Program promotes community-stewarded open spaces for urban agriculture for individuals and groups – there are two within the Delridge Way SW corridor at Puget Boulevard SW and SW Thistle Street. Delridge Way SW contains partial sidewalks and shared bicycle lane markings for various extents that receive frequent users. There are neighborhood greenways parallel to Delridge Way SW to east on 21st Avenue SW and west on 26th Avenue SW which have been recently connected via new greenway on Croft Place SW.

*Area 4*

The following parks and recreational amenities are located near or adjacent to the corridor: the Westwood Village, Roxhill Playground, White Center Pond Natural Area, White Center Pond, Mallard Lake, Steve Cox Memorial Park, and White Center King County Library. There are no grade separated cycle tracks or shared bicycle lanes in Area 4.

*Area 5*

The proposed RapidRide H Line offers access to many green spaces and entertainment venues in Area 5. The following parks and recreational amenities are located near or adjacent to the corridor: Salmon Creek Ravine, Jacob Ambaum Park, Seahurst Park, Chelsea Park, Linde Hill Park, the Burien Actors Theatre, the Hi-Liners Musical Theatre, Burien Community Center, Burien Community Center Park, Dottie Harper Park, Town Square Park, Burien Little Theater, and Burien King County Library. There are no grade separated cycle tracks or shared bicycle lanes in Area 5.

### b. Would the proposed project displace any existing recreational uses? If so, describe.

*Area 1*

The future on-street layover location in the South Lake Union area would be chosen to avoid displacing any recreational uses.

*Area 2*

None of the minor changes proposed in Area 2 would have any impact on recreation areas or uses.

*Area 3*

Delridge Way SW currently contains SB and NB protected bike lanes between SW Andover Street and SW Myrtle Street that would be removed. However, there are existing greenways to the east and west that would connect the community and transit stations. New protected bike lanes and greenway improvements are also proposed as part of project.

*Area 4*

The proposed project improvements will be in the right-of-way but will require temporary construction easements from the Steve Cox Memorial Park at the southeast corner of SW 102nd Street and 15th Avenue SW. After restoration of the disturbed areas, there would be no change to the park. There are no existing grade separated cycle tracks or shared bicycle lanes and thus the proposed project would not displace any existing recreational uses.

*Area 5*

The proposed project occurs in the right of way. On the west side of Ambaum Boulevard SW near SW 120th Street, new sidewalk and new landscaping will be installed adjacent to Salmon Creek Ravine Park. At the northeast corner of the SW 128th Street and Ambaum Boulevard SW intersection, adjacent to the field of St. Bernadette School, existing trees and sidewalk along Ambaum Boulevard SW would be removed and new landscaping would be installed. There are no existing grade separated cycle tracks or shared bicycle lanes and thus the proposed project would not displace any existing recreational uses.

**c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

Since the project will not adversely impact recreational uses or recreational opportunities, measures to reduce or control impacts are not required. The H Line project proposes transit, bicycle and pedestrian access improvements which would benefit access to recreational opportunities.

## *13. Historic and cultural preservation* [help]

**a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe.**

The H Line alignment goes through one historic district that is listed on the National Register of Historic Properties (NRHP) and two NRHP-listed and two eligible properties are adjacent to or near the alignment, as follows:

- Pioneer Square–Skid Road Historic District, downtown Seattle (Area 1)
- Charles A. Jones, Chiropractor/M. Rachke and Son Youngstown Meat Market (recommended as eligible for the NRHP but not listed), 3860 Delridge Way SW (Area 2)
- Frank B. Cooper Elementary School, 4408 Delridge Way SW (Area 3)
- White Center Fieldhouse and Caretaker Cottage (also known as Steve Cox Memorial Park, White Center Park, and King County Park Number 4), 1321 SW 102nd Street (Area 4)

- St. James Lutheran Church (recommended as eligible for the NRHP but not listed), southwest corner of the intersection of SW Cambridge Street and 18th Avenue SW (Area 4)

There are no City of Seattle Designated Landmarks near the project in Areas 1, 2 or 3 (including Westwood Village area). Area 4 includes the White Center Fieldhouse which is on King County's historic register. Burien was incorporated in 1993 and no structures in Area 5 are on King County's list of city historic sites.

**b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

A screening of the Washington Department of Archaeology and Historic Preservation's (DAHP's) Washington Information System for Architectural and Archaeological Records System (WISAARD) database was conducted by Tom Minichillo, PhD, archaeologist with King County Roads Division, in March 2018. Subsequently, a cultural resources review of the project corridor and adjacent areas was conducted by Tierra Right-of-Way, a professional cultural resources firm as noted in the list of environmental documentation prepared for this project (see response to question #8, above). A records review of cultural surveys within 1.0 mile of the Area of Impact (AI) was conducted. Many historic property inventory forms (HPIs) for properties within 100 feet of the AI have been filed with DAHP. No known archaeological sites, historic properties, or cemeteries are located within the AI.

**c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The AI includes all locations where ground disturbance is proposed in association with the project. This includes but is not limited to excavation areas, parking locations for workers or staging areas not located on hardscape, or other areas where historical resources (for example, standing structures) or intact sediments may be disturbed by the project. Background research included a review of environmental and cultural contexts from sources including DAHP's WISAARD, Natural Resources Conservation Services (NRCS) soils data, the United States Surveyor General (USSG) General Land Office (GLO) survey records database, sources available at the University of Washington, HistoryLink.org, and historic maps. The King County Historic Preservation Program database was consulted for identification of ethnographic places near the AI. Previous cultural resources surveys, recorded sites, and recorded historic properties within the immediate vicinity of the project were reviewed. The City of Seattle's online list of landmarks and nominations was also consulted to determine if any current or nominated city landmarks are located within the project area. The register of King County landmarks was consulted. No fieldwork was conducted.

**d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

Metro runs multiple bus routes through the Pioneer Square–Skid Road Historic District, including Route 120. H Line will follow the same alignment as Route 120 through the district. Because the project does not propose any work within or changes to the historic district, no impacts are expected.

Based on the records review, no cultural resources have been recorded within the AI and no direct impacts to listed or known eligible properties are anticipated based on current project plans.

The project is not expected to affect any unknown resources with the following mitigation measures:

- Metro and SDOT will prepare an Unanticipated Discovery Plan (UDP) for the project contractors.
- The general notes in the construction bid documents will include a requirement that the contractor hold the UDP on site and abide by its requirements.
- Metro and SDOT will attend the pre-construction meetings to distribute the UDP.

## *14. Transportation* [help]

**a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

*Area 1*

In the north, the project terminates at a new layover facility at a location in the South Lake Union area. The specific location is being developed by Metro and SDOT. H Line buses are likely to use Westlake Avenue N (SB), Lenora Street, 3rd Avenue, Columbia Street westbound to 1st Avenue S.

Northbound from 3rd Avenue in downtown to the layover, buses would travel on 3rd Avenue to Blanchard Street, turning left onto Westlake Avenue N.

South of downtown from 3rd Avenue the project accesses 1st Avenue S via Cherry Street (NB) and Columbia Street (SB) and ends at S Jackson Street in the Pioneer Square neighborhood. Principal Arterials in project area include 9th Avenue N, Westlake Avenue N, Lenora Street, and Blanchard Street.

*Area 2*

The route begins on 1st Avenue S between S Jackson Street and the West Seattle Bridge in the Pioneer Square and Industrial District neighborhoods. The project crosses the West Seattle Bridge along Delridge Way SW to SW Andover Street.

*Area 3*

The route follows Delridge Way SW, a critical local and regional transportation corridor in West Seattle, from SW Andover Street to SW Henderson Street.

*Area 4*

Within White Center the H Line route follows 15th Avenue SW, SW 107th Street, and 16th Avenue SW.

*Area 5*

From the Burien city boundary at SW 112th Street, the route continues on 16th Avenue SW to SW 116th Street where the route angles southeast onto Ambaum Boulevard SW. The route continues on Ambaum Boulevard SW to SW 150th Street and thence to the southern terminus at the Burien Transit Center.

**b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

Metro's Route 120 currently serves this corridor. Most bus transfer opportunities on Route 120 occur at Westwood Village, northern White Center, and the Burien Transit Center. Stops will be along the street network described in the previous section. The list below identifies the Metro routes that connect with or travel along the project corridor, by area (with some overlap at the area boundaries).

*Area 1*

Dexter Avenue N: Route 62
Westlake Avenue N: Routes 40, 98, and 673
Blanchard Street: Routes 40, 62, 121, 157, 158, 554, and 673
Lenora Street: Routes 40, 121, 143, 157, 158, 554, 577, and 673
3rd Avenue: Metro's main transit spine in downtown and serves over 40 Routes including RapidRide C, D, and E Lines

Columbia Street: Routes 21, 55, 56, 57, 120, 125, and 673

Cherry Street: Metro Route 62
1st Avenue S: Routes 10, 47, 62, and 99

*Area 2*

West Seattle Bridge: Routes 21, 37, 50, 55, 56, 57, 116, 118, 119, 120, 125, and 673

*Area 3*

Delridge Way SW: Routes 60, 128, 22, 125, 128, and 50. The corridor's major transfer point is located at SW Genesee Street/SW 22nd Avenue (Routes 50, 120, and 125)

*Area 4*

Delridge Way SW/SW Roxbury Street/16th Avenue SW: Routes 60, 113, 120, and 128

Westwood Village/SW Barton Place and SW Barton Street: Routes 21, 22, 60, 125, 560, and the C Line
SW Roxbury Street: Routes 113, 560, and 60

*Area 5*

Burien Transit Center: Routes 121, 122, 131, 132, 166, and the F Line

**c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The project will not provide any parking.

*Area 1*

As the final location of the layover is currently unknown, whether parking spaces will be eliminated in the layover area is yet to be determined. It is anticipated that the three layover bus spaces required for northern terminus could remove up to nine parking spaces depending on location and approval from SDOT.

*Area 2*

There would be no impacts on parking in Area 2.

*Area 3*

Existing on-street parking spaces are generally present along Delridge Way SW as follows:

- SB from SW Oregon Street to SW Myrtle Street (restricted during peak hour)
- SB from SW Kenyon Street to 17th Avenue SW
- NB from 17th Avenue SW to SW Kenyon Street (restricted during peak hour)

- NB from SW Myrtle Street to SW Oregon Street
- NB from SW Oregon Street to SW Andover Street (restricted during peak hour)

The project would remove 20 restricted parking stalls and 267 unrestricted stalls, and convert 161 unrestricted parking stalls to off-peak only stalls.

On the west (SB) side of the street the location of the proposed changes would be as follows:

- parking removal from SW Oregon Street to SW Genesee Street
- parking removal from SW Findlay Street to SW Myrtle Street
- parking removal from SW Kenyon Street to 17th Avenue SW

On the east (NB) side of the street the proposed changes would be as follows:

- new, restricted parking from SW Holden Street to Sylvan Way SW
- new, unrestricted parking from Sylvan Way SW to SW Myrtle Street
- change existing, restricted parking to unrestricted from SW Myrtle Street to SW Graham Street
- parking removal from SW Graham Street to SW Findlay Street
- parking removal from SW Genesee Street to SW Andover Street

*Areas 4 and 5*

Existing on-street parking restrictions are generally more prevalent in downtown Burien and in White Center. An expected 18 on-street parking spaces would be eliminated. The location of the proposed changes would be as follows:

- removal of three on-street spaces for left turn modifications to 26th Avenue SW near Westwood Village
- removal of nine spaces for extending curbs at SW 102nd Street and 15th Avenue SW
- removal of six spaces in the City of Burien due to channelization changes along Ambaum Boulevard SW (on the west side) near SW 150th Street

**d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

The H Line project includes new lane configurations featuring Business Access and Transit (BAT) lanes, new RapidRide stations, and improvements to traffic signals and signal timing. Multimodal improvements in the corridor include pavement conditions, new ADA-compliant curb ramps, new or rehabilitated sidewalks, new signals and pedestrian crossings, new bicycle facilities, improved pavement markings, and improved drainage facilities. The proposed improvements are to public facilities only. A project description is provided in Section A, response to Question 11.

**e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The proposed H Line project will not use water, rail or air transportation. The following water, rail, and/or air transportation facilities are located within the vicinity of the project area:

- Kenmore Air Seaplane base on Lake Union

- Sound Transit Light Rail, west of the H Line route alignment through downtown Seattle
- BNSF Railways, west of the H Line route alignment through downtown Seattle (area south to the West Seattle Bridge)
- Port of Seattle/Harbor Island, west of the H Line route alignment through downtown Seattle (area north of West Seattle Bridge)
- Duwamish Waterway, west of the H Line route alignment through downtown and east of the alignment south of the West Seattle Bridge
- Seattle-Tacoma International Airport, southeast of Burien Transit Center

**f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

Route 120 currently has 196 daily trips, or 98 trips in each direction. The proposed H Line project is expected to add approximately 42 bus trips or 21 trips in each direction. The project would not generate trips by other vehicles. Transit service will include 10 H Line buses during the AM peak period (5-9 AM) and 11 H Lines buses during the PM peak (3-7 PM).

Traffic analysis was conducted by consultants on behalf of Metro and SDOT for their respective project areas. Metro took turning movement counts for all study area intersections in Areas 1, 2, 4, and 5 in the AM and PM peak hours and evaluated them using the Synchro and VISSIM models. For Area 3 (Delridge Way SW) SDOT collected traffic data in April 2015 to determine the existing traffic volumes. Level of Service (LOS) of A indicates free-flowing conditions whereas LOS F represents congested conditions.

Analysis of the future traffic volumes by 2030 indicated that most intersections will experience the same or improved conditions after the H Line is built, compared to not building the project. Some turning or through movements at those intersections will be more congested than others at certain times of the day. Where buses have priority treatments, travel delays will generally be lower for the H Line coaches than for general purpose traffic.

The intersection of SW Delridge Way/W Marginal Way SW is forecast to operate at LOS F by 2030, which is similar to forecasted congestion without building the H Line.

Overall in the corridor the number of vehicular trips and peak volumes are not expected to change as a result of the project, even with a slight increase in the number of coaches.

Construction-related traffic (i.e., large trucks and materials hauling) would occur temporarily during the construction period and would be phased to minimize potential impacts to vehicular traffic.

**g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The proposed H Line project is unlikely to affect or be affected by the movement of agricultural and forest products on the roads and streets in the area. Approximately 0.24-mile segment of the H Line alignment along 1st Avenue S, between S Hanford Street and S Lander Street, is a designated Critical Urban Freight Corridor. While this portion of the corridor is near the Port of Seattle, the 21 additional daily bus trips in each direction are not expected to affect the movement of these products or other cargo because those trips are a very minor portion of all vehicle trips in this area.

**h. Proposed measures to reduce or control transportation impacts, if any:**

The following measures may be used to reduce or control transportation impacts during construction:

- Construction contractors will be required to comply with all traffic control and in-street work regulations and permit requirements for the location jurisdictions.
- SDOT and Metro will work with their respective contractors and neighborhood residents and businesses to minimize disruptions and maintain adequate access during the construction phases.
- SDOT and Metro will inform adjacent property owners of work progress.
- SDOT and Metro will conduct public outreach before and during project construction to notify residents, businesses, local agencies, transit agencies and other stakeholders of expected disruptions or changes in traffic flow.
- Temporary road closures will be minimized, and detour routes will have proper signage.
- Where required, alternative routes for pedestrians, bicyclists and those with disabilities will be identified and marked clearly.
- Any proposed temporary effects to existing transit stops will be coordinated with Metro's construction office in advance.

## *15. Public Services* [help]

**a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

The H Line project will not result in an increased need for public services because it will be replacing an existing transit service. U.S. Census Bureau 2011-2015 American Community Survey census block groups data within a half-mile radius of the H Line corridor has approximately 27.6 percent of households without a vehicle, compared to 9.7 percent in King County overall. Therefore, enhanced transit service is expected to provide a benefit to these transit-dependent households.

Police and emergency services (Metro's Transit Police and local police and emergency services) support transit activities but Metro does not anticipate any increased need for support when Route 120 is converted to the RapidRide H Line service.

The H Line improvements at bus stops and stations have been designed to also enhance public access and safety to the service.

**b. Proposed measures to reduce or control direct impacts on public services, if any.**

Since the H Line project will not result in an increased need for public services, no measures are proposed.

## *16. Utilities* [help]

**a. Circle utilities currently available at the site:**

electricity, natural gas, water, refuse service, telephone, sanitary sewer, other: stormwater drainage

**b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The electricity provider is Seattle City Light. In general, the project will require electrical connections to the bus stations for shelter lighting and wireless communication equipment. Trenching for electrical conduit is typically about 24 inches deep. In selected locations of road work the relocation of light or signal poles or underground utilities such as stormwater pipes or electrical conduit will be required. New flashing crossing beacons and improvements to signals and lighting infrastructure are being coordinated with Seattle City Light. The Delridge Mulimodal Corridor Project in Area 3 will replace Seattle City Light lighting infrastructure, including 26kVA lines, along Delridge Way SW from SW Myrtle Street to SW Henderson Street.

Stormwater facilities are managed by the cities of Seattle and Burien and King County. In Area 3 SDOT is currently pursuing alternative compliance in accordance with Seattle Municipal Code 22.800.080 in coordination with Seattle Public Utilities. SDOT is designing an off-site system of detention vaults, generally located beneath side streets west of Delridge Way SW. It is anticipated that instead of constructing detention faults SDOT will contribute toward Longfellow Creek drainage control facilities as part of a fee-in-lieu with Seattle Public Utilities. Stormwater improvements would still be required on Delridge Way SW including new or upgraded inlets, catch basins, and pipes. In addition to meeting code requirements for stormwater in Area 3, the Delridge Multimodal Corridor project will install approximately 4,000 feet of new drainage conveyance to accommodate future development for Seattle Public Utilities.

The Stormwater Services Section of the King County Water and Land Resources Division manages stormwater in King County and there are multiple facilities in Area 4. Metro is coordinating with the City of Burien to install drainage improvements in Area 5 that will connect to the existing stormwater system.

The water provider is Seattle Public Utilities. Metro proposes to obtain approval for temporary water service for irrigation of the new planting strips on Ambaum Boulevard SW. The Delridge Multimodal Corridor project in Area 3 will install approximately 900 feet of new water main from SW Juneau Street to the south, a new water main (approximately 75 feet) westbound at SW Edmunds Street, and a new pressure reducing valve at SW Brandon Street.

Seattle Public Utilities has existing sanitary sewer and combined sewer (CSO) facilities in Area 3. The Delridge Multimodal Corridor project in Area 3 will install approximately 700 feet of sanitary sewer main to accommodate future development from SW Juneau Street to the south.

Where utility improvements are not being proposed as part of the project, public and private utilities will be identified and avoided during construction.

## C. Signature [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee: Gillian Zacharias

Position and Agency/Organization: Sr. Environmental Planner, Metro Transit Department

Date Submitted: October 8, 2019