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**

1. Name of proposed project, if applicable:

   *Swift Orange Line Bus Rapid Transit (BRT) Project*
2. Name of applicant:

Community Transit

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

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7100 Hardeson Road, Everett, WA 98203
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4. Date checklist prepared:

June 3, 2021

5. Agency requesting checklist:

Community Transit

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

The Swift Orange Line BRT is scheduled to go to construction in early 2022 and open for service in March 2024.

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

The Swift Orange Line BRT project is part of the Community Transit system. Although there are no current plans for additions, expansion, or other activity related to this project, additions and/or changes to the route could be made in the future as service demands change.

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

Other environmental documents that have been prepared for this project include:

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.

There are no known applications pending for governmental approvals of other proposals directly affecting the Swift Orange Line BRT corridor, stations, or termini.

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

- NEPA Re-evaluation approval from Federal Transit Administration (FTA).
- Right-of-way permits from the Cities of Lynnwood and Mill Creek, Snohomish County, and Washington State Department of Transportation (WSDOT).
- Clearing and grading permits from the Cities of Lynnwood and Mill Creek and Snohomish County.
- Building permits from the Cities of Lynnwood and Mill Creek and Snohomish County.
- Critical Areas Permit from the City of Mill Creek.

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.)

The Swift Orange Line BRT project (the project) represents an extension of the Swift BRT system, connecting two (2) main east/west corridors – 164th Street SW/SE and 196th Street SW – in south Snohomish County (see Figure 1). The Swift Orange Line BRT will provide access to the regional transportation network, including the future Sound Transit Link light rail at the Lynnwood Transit Center (to be completed by 2024). According to the Community Transit Orange Line Feasibility Study (WSP et al. 2018), it is anticipated that by the year 2040 ridership could increase to nearly 5,300 daily riders. The project will reduce future vehicle trips by providing public transportation to residents of Lynnwood and Mill Creek. This will result in fewer vehicle miles traveled, which will reduce road congestion. The Swift Orange Line BRT project will include construction of the following improvements (see the attached Plan Set):
• **Western Terminus at Edmonds College** – The proposed western terminus is located on the eastern edge of the Edmonds College campus and partially within the public right-of-way at 68th Avenue W between 200th Street SW and 202nd Place SW. The proposed terminus will include one (1) Swift station, one (1) Swift drop-off station, one (1) Swift layover area, and approximately four (4) local boarding zones with a pedestrian platform, shelters, a driver restroom, lighting, sidewalk, landscaping, and modifications to the existing Edmonds College parking lot immediately adjacent to the new terminus. The preferred design allows for dependent arrival and departure for Swift buses and independent arrival and departure for local buses. BRT buses will turn around using the existing roundabout at the intersection of 68th Avenue W and 204th Street SW.

• **Corridor Stations** – Transit platforms, associated site improvements, and installation of shelters and amenities at sixteen (16) BRT station sites along the new Swift Orange Line corridor including:
  o Station pair on 196th Street SW/SR 524 at SR 99
  o Station pair at Lynnwood Transit Center
  o Station pair on 33rd Avenue W at 188th Street SW
  o Station pair on 36th Avenue W south of Maple Road
  o Station pair on 164th Street SW at Swamp Creek Park & Ride
  o Extended station (serving eastbound and westbound) at Ash Way Park & Ride
  o Station pair on 164th Street SW at Larch Way
  o Station pair on 164th Street SW at North Road
  o WB Station on 164th Street SE at Mill Creek Boulevard

• **Eastern Terminus at McCollum Park Park & Ride** – Reconstructed transit center for existing/proposed local service and new BRT turnaround and layover at the existing McCollum Park Park & Ride site in the southwest corner of SR 96/128th Street SE and Dumas Road. The eastern terminus will include one (1) Swift station, one (1) Swift drop-off station, local stop and layover area reconfiguration of the existing transit facility, a new driver restroom, pedestrian platform, lighting, sidewalks, associated parking lot reconfiguration, and landscaping.

• **Transit Speed and Reliability Improvements along the corridor may include:**
  o Transit signal priority (TSP) at signals along the route that can provide for early green or green extension signal timing to prioritize transit movements. For Lynnwood signals, this will include signal software upgrades for all signals along the route. For Snohomish County and WSDOT signals, this could include upgrades to the signal detection systems, to support transit priority treatments in the adaptive signal control system to be implemented by the two (2) agencies. If required, signal controller upgrades and upgrades to the signal detection systems will be completed by Snohomish County/WSDOT separately as part of the adaptive signal improvements project.
  o Traffic signal modifications for transit queue bypass/business access and transit (BAT) lane improvements at four (4) locations along the corridor: 196th Street SW/SR 524 at SR 99, Ash Way at the entrance/exit to the Ash Way Park & Ride, 164th Street SW at Larch Way, and 164th Street SW at North Road.
  o Intersection modifications on 128th Street SE/SR 96 at Dumas Road and at Dumas Road and Park Road for access to McCollum Park Park & Ride.
  o A new signal at the intersection of Ash Way and the entrance/exit from the Ash Way Transit Center.
o BRT queue bypass and queue jump signal modifications for transit priority treatments at the 164th Street SW and I-5 interchange area, with signal modifications at both northbound and southbound ramp intersections.

o A southbound right-turn pocket at the intersection of 164th Street SW and Ash Way for westbound BRT to bypass the southbound through queue and maintain efficiency along the route. Note that this will complete/extend the sidewalk on the west side of Ash Way from 164th Street to the commercial properties.

o Adaptive signal improvements along the 164th Street SW/SE corridor will be completed separately by Snohomish County, WSDOT, City of Mill Creek, and City of Lynnwood.

- **Northbound Blue Line Station on SR 99 at 196th Street SW** – Transit platform, associated site improvements, and installation of shelter and amenities at one (1) new BRT station site along the *Swift* Blue Line corridor.

- **Local Bus Stop Relocation** – Relocation of approximately ten (10) existing local Community Transit stops adjacent to the proposed BRT stations.

Many of the proposed stations are located either on existing paved sidewalks/roadways or on previously disturbed vegetated areas along the road corridor. Each station is made up of a 60-foot by 16-foot raised loading platform with a pedestrian shelter and windscreen, kiosks, an iconic marker, and two (2) ticket vending machines. In front of each station will be an in-lane, concrete bus pad, no larger than 70 feet by 16 feet. The station platform and sidewalk approach will be modified to meet surrounding site conditions such as abutting sidewalks, Americans with Disabilities Act (ADA) ramps, street paving, landscaping, and curbs and gutters. The project will include grading and/or repaving portions of the existing road corridors, pull-outs, sidewalks, curbs and gutters, traffic signal modifications, and utility work.

The primary ground disturbance for each station will likely be associated with the installation of the foundations for the shelter and the iconic marker. The foundations for previous *Swift* stations have been approximately four (4) feet by four (4) feet and up to six (6) feet deep. Each station will include a concrete platform, similar in cross-section to a sidewalk. Excavations for other site improvements have been approximately two (2) feet in depth, with utility trenching up to six (6) feet in depth. Temporary impacts have included equipment staging and site access.

The project also proposes to construct widening improvements at some locations. The primary ground disturbance of the widening improvements will be associated with utilities, stormwater facilities, and traffic signal foundations, with depths up to twenty (20) feet within the roadway prism. The street and sidewalk work will involve similar excavation to the station construction, with depths approximately two (2) to four (4) feet but will extend to cover the full width of the proposed widening areas of the additional travel lane and sidewalk.

At both the western and eastern termini, site improvements will include bus platforms, driver restrooms, sidewalks, site lighting, curb and gutter, paving, and landscaping. The primary ground disturbance at these locations will also be associated with utilities including water and sewer service connections to driver restrooms, and stormwater facilities, with disturbance depths up to ten (10) feet. The sewer service to the new driver restroom at the eastern terminus requires extension of the existing sewer main with disturbance depths up to twenty-four (24) feet.

The project includes four (4) preliminarily identified contractor staging areas:

- Mill Creek site off North Creek Drive
Equipment necessary to complete the project includes backhoes, concrete cutters, concrete trucks, dozers, dump trucks, excavators, flatbed trucks, jack hammers, loaders, pavers, and rollers. No pile driving or other highly intensive noise activities (e.g., blasting) are anticipated during construction.

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.

The Swift Orange Line BRT project site is located in Snohomish County, WA and passes through the communities of Edmonds, Lynnwood, and Mill Creek. The approximately 11-mile route includes portions of 68th Avenue W, SR 524/196th Street SW, 48th Avenue W, 46th Avenue W, 200th Street SW/Alderwood Mall Boulevard, 33rd Avenue W, 184th Street SW, 36th Avenue W, 164th Street SW/SE, SR 527/Bothell-Everett Highway, Dumas Road, and Park Road (see Figure 1). The route, lying within portions of Snohomish County and the Cities of Lynnwood and Mill Creek, extends from a proposed transit center at Edmonds College (the western terminus) to the existing transit center at McCollum Park Park & Ride (the eastern terminus).

B. Environmental Elements

1. Earth

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)?

The terrain varies over the length of the approximately 11-mile corridor; however, there are no steep slopes within the project footprint. Typical adjacent slopes behind stations are 3 to 1 or less. At the 36th Avenue W and Maple Road station and at the right turn widening along Ash Way, there are adjacent slopes up to 1 to 1 (man-made roadway cut/fill slopes with limited height, which are not considered critical areas).

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.

Native soils in the vicinity of the project corridor are generally of the Everett gravelly sandy loam series, the Alderwood gravelly sandy loam series, or Urban Land (NRCS 2019). Both the Everett and Alderwood soils series are the result of glacial formation processes. Urban land represents areas that have been reshaped by known large-scale development (NRCS 2019). The urban modification of the project area is largely a result of construction for major arterial streets such as 164th Street SW, and the associated large mixed-use developments nearby. The
activities associated with this work (specifically grading, cutting, and filling with both fill and native materials) have fundamentally reshaped the areas recorded as Urban Land.

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

There are no surface indications or history of unstable soils in the vicinity of the project.

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 primary ground disturbance for each station will likely be associated with the installation of the foundations for the shelters and the iconic markers. The foundations for previous Swift stations have been approximately four (4) feet by four (4) feet and up to six (6) feet deep. Excavations for other site improvements have been approximately two (2) feet in depth, with utility trenching up to six (6) feet in depth.

The project also proposes to construct widening improvements at some locations. The primary ground disturbance of the widening improvements will be associated with utilities, stormwater facilities, and traffic signal foundations, with depths up to twenty (20) feet within the roadway prism. The street and sidewalk work will involve similar excavation to the station construction, with depths approximately two (2) to four (4) feet but will extend to cover the full width of the proposed widening areas of the additional travel lane and sidewalk.

The total estimated grading quantities over the entire project corridor include approximately 3,275 cubic feet of cut and 2,100 cubic feet of fill. Cut and fill quantities for a typical station site are less than 50 cubic yards per site. Only the two termini and locations where significant roadway improvements are proposed are estimated to exceed 500 cubic yards and 100 cubic yards, respectively.

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

Erosion could occur as a result of temporary construction activities that involve ground disturbance, such as excavations for station installation and utility relocations.

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

Due to the nature of the project (transit improvements within a roadway corridor), the current site is almost entirely covered with impervious surfaces, with the exception of some minor landscaping within the road right-of-way. The project will create approximately 2.3 acres of new impervious surface, which includes 1.7 acres of net new pollution-generating impervious surface (PGIS) area, primarily through road widening to extend or enhance existing transit service, enlarging park & ride facilities, and intersection improvements in the project corridor.

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

Prior to and/or during project construction, Community Transit will work with the contractor, construction management team, project engineer, and the local permitting agencies to prepare and implement the following minimization measures to reduce potential adverse construction impacts:
Phase construction work to minimize the amount of earthwork and minimize the amount of time that exposes the ground surface to erosion.

- Implement a Temporary Erosion and Sediment Control (TESC) Plan that includes sediment control best management practices (BMPs) such as silt fences, check dams, sediment traps, sedimentation basins, and flocculation methods.

- Use erosion control practices such as seeding, mulching, soil conditioning with polymers, use of geo-synthetics, sod stabilization, erosion-control blankets, vegetative buffer strips, and preservation of trees with construction fences.

- Use construction entrances, exits, parking areas, and wheel wash stations to reduce tracking sediment onto public roads.

- Perform routine inspections of erosion-control and sediment-control BMPs and subsequent BMP maintenance.

- Implement construction BMPs to control dust and limit impacts on air quality.

2. Air

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.

This section is summarized from the *Swift BRT Orange Line Air Quality Discipline Report (Amended)* (ESA 2021a).

Although construction equipment will generate emissions of criteria and greenhouse gas (GHG) pollutants, the primary pollutant of concern for road construction projects is fugitive dust generated by equipment operating on exposed earth. Due to the linear nature of road construction projects, emissions typically do not occur in the same location for extended periods of time. Consequently, any dust impacts from project construction will be temporary and will be minimized by implementing BMPs.

For the long-term operation of the project, an analysis was conducted to determine affected intersections along the project corridor based on an evaluation of level of service (LOS). The existing intersections along the proposed BRT route will have a LOS ranging from A to F during existing (2019), project (2024), and design (2044) PM peak hour conditions (Casseday and TENW 2021). Based on the existing and projected traffic conditions with and without the project, for all intersections, traffic volumes with the project will be nearly the same or reduced for both the project year and design year. Operation at one (1) intersection within the study area is estimated to degrade due to implementation of the project. A carbon monoxide (CO) concentration estimate was conducted for Dumas Road / McCollum Park Park & Ride, which is predicted to degrade from LOS C to LOS D in 2044. The Washington State Intersection Screening Tool (WASIST) version 3.0 (WSDOT 2015) was used to estimate CO concentrations at sensitive receptors located near this intersection. The CO modeling results (i.e., hotspot analysis) indicate that no violations of the federal CO 1-hour or 8-hour ambient standards will occur under any of the scenarios analyzed (i.e., 2019, 2024, and 2044 conditions).

A quantitative Mobile Source Air Toxics (MSAT) emissions analysis is required for projects on roads with average annual daily traffic (AADT) greater than 140,000 vehicles or where there is the potential for the project to increase substantially (10 percent or more) the number of diesel vehicles using a roadway. While AADT on the *Swift Orange Line BRT* is substantially less than 140,000, it will increase the diesel vehicles using the roadway; therefore, a qualitative MSAT analysis is required and was conducted. Based on the results of the MSAT analysis, the increase in diesel vehicle traffic from the *Swift Orange Line BRT* project is considered negligible and insignificant as it is anticipated to add six (6) new transit bus trips during peak hours of operation, each way.
**Greenhouse Gas** - The Swift Orange Line BRT will provide access to the regional transportation network, including the future Sound Transit Link light rail at the Lynnwood Transit Center (to be completed by 2024). According to the Community Transit Orange Line Feasibility Study (WSP et al. 2018), it is anticipated that by the year 2040 ridership could increase to nearly 5,300 daily riders. The project will reduce future vehicle trips by providing public transportation to residents of Lynnwood and Mill Creek. This will result in fewer vehicle miles traveled, which would reduce road congestion and thereby lower GHG emissions when compared to no build conditions.

Although project construction will generate localized air quality impacts, mainly in the form of fugitive dust, these impacts would be temporary. Proposed BMPs will minimize the generation of GHGs and dust during construction.

Project operations will not result in significant CO impacts per the completed hot spot analysis. Consequently, the project will not cause or contribute to violations of the federal or state ambient CO air quality standards.

In addition, the project will likely result in beneficial, long-term impacts to air quality within the region due to transit riders shifting from single-occupancy vehicles to public transit. This projected shift will reduce congestion as public transit becomes more heavily utilized and there are fewer cars on the road.

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 would affect this proposal.

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

Due to the linear nature of road construction projects, emissions typically do not occur in the same location for extended periods. Consequently, air quality impacts from project construction will be temporary and will be minimized by BMPs. Construction BMPs to control dust and exhaust emissions include the following:

- Maintain all equipment in good operating condition, which will minimize GHG emissions by reducing fuel consumption.
- Water dirt driveways and construction surfaces, install temporary ground covers, sprinkle the project site with approved flocculating agents, and/or use temporary stabilization practices upon completion of grading to control dust.
- Provide wheel-cleaning stations to ensure that construction vehicle wheels and undercarriages do not carry excess dirt from the site onto adjacent roadways.
- Regularly clean streets to ensure that excess dust and debris are not inadvertently transported from the construction site to adjacent roads.
- Plan construction staging to minimize soil exposure for extended periods.
- Designate active construction areas, staging areas, and material transfer sites to reduce equipment idling time.
- Encourage construction workers to use ridesharing to reduce temporary energy use and associated GHG emissions.
3. Water

Portions of this section are summarized from the Swift BRT Orange Line Critical Areas Report (Otak 2020), as well as the Swift BRT Orange Line Biological Assessment (ESA 2020a).

a. Surface Water:

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.

Five (5) wetlands (Wetlands A through E) were identified in the project area. Wetland A is located in City of Mill Creek in the vicinity of the 164th Street SE and Mill Creek Boulevard improvements. Wetlands B and C are south of the proposed site improvements at McCollum Park in unincorporated Snohomish County and the City of Mill Creek, respectively. Wetlands D and E are located in City of Lynnwood east of the proposed improvements at 36th Avenue W and Maple Road. Wetlands consist of slope and depressional hydrogeomorphic classes and palustrine scrub-shrub and forested Cowardin habitat classes. All wetlands were rated using the Wetland Rating System for Western Washington (Hruby 2014) per Snohomish County Code (SCC) 30.62A.230 (Classification of streams, lakes, wetlands and marine waters): Mill Creek Municipal Code (MCMC) 18.06.910 (Designation, mapping, and rating); and Lynnwood Municipal Code (LMC) 17.10.050 (Wetland delineation and rating system).

Wetland A is rated Category III and has a 100-foot wide standard buffer width per MCMC 18.06.930. Wetland B is in a Native Growth Protection Area and has a 25-foot buffer vested under Critical Area Site Plan #9505220325 per SCC 30.62A.160. Wetland C is rated a Category II and has a 200-foot buffer width per MCMC 18.06.930. Wetland D is rated Category III with a habitat score of 4 and has a standard buffer width of 60 feet, and Wetland E is rated Category IV with a habitat score of 3 and has a standard buffer width of 40 feet per LMC 17.10.052.

Two (2) streams, North Creek and Swamp Creek, cross the project corridor. North Creek flows north to south, west of the proposed improvements at 164th Street SE and Mill Creek Boulevard in the City of Mill Creek. North Creek is classified as a Type F (fish-bearing) watercourse and has a 150-foot wide riparian buffer per MCMC 18.06.1050. Swamp Creek flows north to south in a culvert beneath 164th Street SW. Swamp Creek is classified as a Type F watercourse, but the occurrence of Endangered Species Act (ESA)-listed species (steelhead) is limited to areas well downstream of the project (ESA 2020a). The buffer for Sitka Creek, near McCollum Park at the north terminus, extends into the project area.

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.

Impacts to critical areas by the project include approximately 1,780 square feet (SF) of low-functioning, overlapping stream/wetland buffer near North Creek within the City of Mill Creek from construction of the pullout for the 164th Street SE westbound station at Mill Creek Boulevard. The low-functioning buffer is a grass strip between the sidewalk and adjacent parking lot with buried utilities and landscaping. An additional 488 SF of lawn habitat in the outer edge of the Wetland C buffer at McCollum Park will be impacted by the installation of a stormwater media filter drain to treat stormwater runoff from the new parking lot at the eastern terminus. Total buffer impacts from the project is approximately 2,268 SF. No other impacts on wetlands/streams or buffers are anticipated from project construction.
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.

No fill or dredge material will be placed in or removed from surface waters or wetlands as a result of the project.

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

No surface water withdrawals or diversions will be required for the project.

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

Two portions of the project corridor cross mapped Federal Emergency Management Agency (FEMA) Zone A floodplains. Zone A floodplains have a 1 percent annual chance of flooding. Both locations are on 164th Street SW/SE where the corridor crosses Swamp Creek (between 25th Avenue W and 22nd Avenue W) and North Creek (between 5th Avenue SE and 9th Avenue SE) (FEMA 2019). Both streams are culverted under 164th Street SW/SE. In these areas, the roadway is elevated over the stream. The project is not proposing any construction within these areas, so no impacts are expected.

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.

The project does not involve any discharges of waste materials to surface waters.

b. Groundwater:

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.

The project will not require groundwater withdrawals 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 materials will be discharged into the ground as a result of the project.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including stormwater) 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.
Stormwater runoff will be generated from the roadway surface, sidewalks, and shelter roofs. The project will create approximately 2.3 acres of new impervious surface, which includes 1.7 acres of net new PGIS area, primarily through road widening to extend or enhance existing transit service, enlarging park & ride facilities, and intersection improvements in the project corridor. However, the project will provide enhanced stormwater treatment for 100 percent of all net new PGIS for those project Threshold Discharge Areas (TDAs) exceeding 5,000 SF of increased PGIS. Approximately 3.8 acres of PGIS will be treated, representing over 100 percent of all net new PGIS. Stormwater flow control (detention), equivalent to 100 percent of the increased PGIS, will also be provided in these same TDAs, if not already provided by existing facilities. The remainder of impervious surface not receiving treatment or detention is primarily associated with typical station improvements, which are generally considered to be similar to sidewalks and non-pollution generating. If additional flow control or runoff treatment is required by the local agencies as the design progresses, stormwater management facilities will be included with the proposed stations, or mitigation fees will be paid in lieu of new on-site facilities.

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

No waste materials will enter ground or surface waters as a result of the project.

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

Waste material associated with vehicular traffic (e.g., tire dust and oil) could be picked up and transported by stormwater. Such wastes will be treated as described above. During construction, temporary erosion control will be implemented to manage runoff and groundwater so as to not have sediment-laden water entering the stormwater system downstream of the limits of disturbance.

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

Surface Water - The project avoids direct impacts on wetlands and streams. Impacts to critical areas by the project include approximately 1,780 SF of low-functioning, overlapping stream/wetland buffer near North Creek within the City of Mill Creek from construction of the pullout for the 164<sup>th</sup> Street SE westbound station at Mill Creek Boulevard. The low-functioning buffer is a grass strip between the sidewalk and adjacent parking lot with buried utilities and landscaping. An additional 488 SF of lawn habitat in the outer edge of the Wetland C buffer at McCollum Park will be impacted by the installation of a stormwater media filter drain to treat stormwater runoff from the new parking lot at the eastern terminus. Total buffer impacts from the project is approximately 2,268 SF. Buffer impacts will be mitigated per MCMC 18.06 by enhancing approximately 4,600 SF of low-functioning buffer with native shrubs and small trees at McCollum Park for a 2:1 (mitigation: impacts) mitigation ratio. All buffer impacts and mitigation occur in the North Creek basin within the City of Mill Creek. The proposed mitigation plan ensures no net loss of critical area functions or values. The proposed mitigation will enhance existing degraded wetland buffer near McCollum Park, within the same sub-basin drainage basin (North Creek), and will provide greater biological functions than existing at the Mill Creek Boulevard/164<sup>th</sup> Street SE and McCollum Park project sites.

These impacts have been conservatively estimated because the impacted buffer at the Mill Creek Boulevard/164<sup>th</sup> Street SE intersection is a previously disturbed grass strip between a parking lot and the sidewalk with a continuous connection to the forested North Creek riparian corridor. Underground and overhead utilities, power poles, lighting, and irrigation lines are
installed in the grass strip. No other impacts to wetlands(streams, buffers, or Fish and Wildlife Habitat Conservation Areas (FWHCAs) have been identified for the project.

See also response to B.1.h, above for additional mitigation measures.

**Stormwater** - The project will comply with stormwater management requirements for the local agencies, including flow control and runoff treatment requirements. For the station sites, Community Transit will either include stormwater management facilities with the proposed stations or will pay mitigation fees in lieu of new facilities. For the termini sites, Community Transit will provide stormwater BMPs as described below:

- Flow control detention facilities that are designed to release site runoff at rates that mimic a natural vegetated condition.
- Proprietary underground water quality filter devices that are designed to capture pollutants from roadway surfaces. Devices will be selected that have been approved through the state testing program and have been given a General Use Level Designation (GULD).
- Energy dissipation and scour protection at pipe inlets and outlets to prevent erosion.
- Develop and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan. Elements of this plan will satisfy all pertinent requirements set forth by federal, state, and local laws and regulations.
- All vehicles operated within the project area will be inspected for fluid leaks before leaving the vehicle staging area. Any leaks detected will be repaired before the vehicle resumes operation. When not in use, all vehicles will be stored in the staging areas or stored with spill containment pans or pads.
- Spill response equipment will be on-site for potential fluid leakage.
- All mechanical equipment will be fueled at least 50 feet from wetlands and watercourses.

**Groundwater** - No groundwater impacts would occur with implementation of the project. No mitigation is required.

4. **Plants**

Portions of this section are summarized from the *Swift BRT Orange Line Critical Areas Report* (Otak 2020), as well as the *Swift BRT Orange Line Biological Assessment (ESA 2020a)*.

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

- x deciduous tree: alder, maple, aspen, other
- x evergreen tree: fir, cedar, pine, other
- x shrubs
- x grass
- ___ pasture
- ___ crop or grain
- ___ orchards, vineyards, or other permanent crops.
- ___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- ___ water plants: water lily, eelgrass, milfoil, other
- x ___ other types of vegetation: Himalayan blackberry, Scotch broom, invasive ivy, etc.

The project corridor is within the Western hemlock (*Tsuga heterophylla*) vegetation zone, which encompasses most of western Washington (Franklin and Dymess 1988). Typical vegetation in
this zone today consists of a mixture of native and invasive, nonnative plants. Native species characteristic of this environment include a variety of ferns, Oregon grape, ocean spray, blackberry, red huckleberry, western red cedar, Douglas fir, and western hemlock.

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

Approximately 1,560 SF of low-functioning stream/wetland buffer (e.g., grass landscaping strip) near North Creek will be cleared and converted to pavement near the Mill Creek Boulevard/164th Street SE intersection.

To minimize the amount of vegetation removed, and to protect vegetation to be maintained, Community Transit will:

- Install high-visibility construction fencing to define the perimeter of the work area and protect sensitive areas from construction-related impacts.
- Clearly mark the limits of construction and protect vegetation outside of these limits. Protect street trees as required by City code.

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

There are no threatened or endangered plant species known to be on or near the project site.

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

Landscaping will be provided in landscape strips and around bus stations, where appropriate. All planting will be in accordance with local regulations for right-of-way use.

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

Invasive species found within the project area include Himalayan blackberry (*Rubus armeniacus*), Scotch broom (*Cytisus scoparius*), and others typical to urban landscapes.

5. Animals

Portions of this section are summarized from the *Swift BRT Orange Line Critical Areas Report* (Otak 2020), as well as the *Swift BRT Orange Line Biological Assessment (ESA 2020a)*.

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:
- mammals: deer, bear, elk, beaver, other: *rats, mice, squirrels, etc.*
- fish: bass, salmon, trout, herring, shellfish, other ________

Native fauna typically found in this zone include deer, cougar, elk, bear, coyotes, lynx, beaver, skunk, quail, grouse, weasel, muskrat, and river otter. However, the development of the urban environment has fundamentally changed the conditions such that many of the native flora and fauna are no longer able to exist in the project area.
b. List any threatened and endangered species known to be on or near the site.

Table 1 identifies the fish and wildlife species listed under the Endangered Species Act (ESA) with the potential to occur in the project area. Although the project is within the range of several federally listed species, no designated critical habitats for these listed species are mapped in the project area.

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Potential to Occur in Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinook salmon <em>Oncorhynchus tshawytscha</em></td>
<td>Threatened</td>
<td>Lake Washington population occurs in the project area; found in North Creek, Penny Creek, and Swamp Creek.</td>
</tr>
<tr>
<td>Bull trout <em>Salvelinus confluentus</em></td>
<td>Threatened</td>
<td>No suitable habitat in the project area; no record in the North Creek drainage.</td>
</tr>
<tr>
<td>Steelhead trout <em>O. mykiss</em></td>
<td>Threatened</td>
<td>Documented in North Creek and Penny Creek, and in Swamp Creek (outside the project area).</td>
</tr>
</tbody>
</table>

Mammals

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Potential to Occur in Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>North American wolverine <em>Gulo gulo luscus</em></td>
<td>Proposed Threatened</td>
<td>Does not occur; no suitable habitat present.</td>
</tr>
</tbody>
</table>

Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Potential to Occur in Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marbled murrelet <em>Brachyramphus marmoratus</em></td>
<td>Threatened</td>
<td>Unlikely to occur; no suitable habitat present.</td>
</tr>
<tr>
<td>Streaked horned lark <em>Eremophila alpestris strigata</em></td>
<td>Threatened</td>
<td>Unlikely to occur; no suitable habitat present.</td>
</tr>
<tr>
<td>Yellow-billed cuckoo <em>Coccyzus americanus</em></td>
<td>Threatened</td>
<td>Unlikely to occur; no suitable habitat present.</td>
</tr>
</tbody>
</table>

Source: USFWS 2021; NMFS 2021.

The Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) on the Web online mapping tool lists the following priority species occurring within North Creek: fall-run Chinook, coho, winter-run steelhead, and resident coastal cutthroat trout (WDFW 2019). Yuma myotis (*Myotis yumanensis*) and little brown bat (*Myotis lucifugus*) breeding areas are mapped near McCollum Park. Two (2) Biodiversity Areas and Corridors are mapped: one (1) at Scriber Lake Park south of 196th Street SW, and one (1) near the intersection of 164th Street SE and the Bothell-Everett Highway. Martha Lake is mapped as a Waterfowl Concentration Area.

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

The entire project corridor is within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends from Alaska to South America.

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

The project will avoid or minimize impacts on stream buffers by working within the existing hardscape and right-of-way to the extent practical. No in-water work will occur, and therefore no direct stream impacts are anticipated. Community Transit and its contractors will follow all local jurisdictional requirements to avoid and minimize critical area impacts. Stream buffer impacts are regulated by the local jurisdictions within the project area. All permanent and temporary buffer impacts will be restored and mitigated for in accordance with the Mill Creek Municipal Code (MCMC 18.06.930). Community Transit will meet or exceed all stormwater and water
quality requirements, as well as wetland and stream buffer mitigation requirements for the Swift Orange line BRT project.

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

There are no known invasive animal species on or near the project site.

### 6. Energy and Natural Resources

f. **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.**

Electricity will be used for wall heaters in the driver restrooms, and for lighting, pay stations, and readerboards at the bus stations.

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

The stations and appurtenant facilities will not affect the potential use of solar energy by adjacent properties.

h. **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.**

The Swift Orange Line BRT project will reduce long-term energy use by encouraging public transit use rather than driving alone in private vehicles. Much of the lighting proposed for the project will use light-emitting diode (LED) bulbs to conserve energy. The Swift Orange Line BRT will provide access to the regional transportation network, including the future Sound Transit Link light rail at the Lynnwood Transit Center (to be completed by 2024). According to the Community Transit Orange Line Feasibility Study (WSP et al. 2018), it is anticipated that by the year 2040, ridership could increase to nearly 5,300 daily riders. The project will reduce future vehicle trips by providing public transportation to residents of Lynnwood and Mill Creek. This would result in fewer vehicle miles traveled, which would reduce road congestion and thereby lower GHG emissions when compared to no build conditions.

### 7. Environmental Health

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.**

Other than typical vehicle/bus operating fluids held in each vehicle and cleaning products related to maintaining active public facilities, no toxic, explosive, flammable, or hazardous wastes will be used as a result of this project. This section is summarized from the *Swift BRT Orange Line Hazardous Materials Discipline Report* (ESA 2020d).

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

For purposes of this analysis, the area located within approximately one-half mile of the project corridor was evaluated. The federal and state databases of contaminated sites (EPA 2019 and Ecology 2019, respectively) were consulted to identify potentially contaminated sites near the
No U.S. Environmental Protection Agency (EPA) Superfund sites were identified. A total of thirty-three (33) cases with suspected or known contamination were found in Ecology records within approximately one-half mile of the project corridor (note that two [2] of these cases occur on the same property or overall site). Contaminants identified at these sites include metals, petroleum hydrocarbons, lead, polychlorinated biphenyls (PCBs), gasoline, diesel, and other constituents. Of the sites listed, the Ecology database indicates that thirty (30) sites have affected or are suspected of affecting groundwater or surface water contamination, with three (3) cases having only affected or suspected of affecting soil or sediment. The complete list of these sites is included in the Hazardous Materials Discipline Report (ESA 2020d), and will be used by Community Transit once design and right-of-way plans are advanced to confirm the likelihood of encountering contamination.

Of note, the eastern terminus of the Swift Orange Line at McCollum Park is located on a former landfill that was known as the Emander Landfill. The landfill was used for refuse disposal for gravel mining operations that began at the site in 1929. The gravel pit was used for waste disposal from about 1947 to 1967. As part of the site cleanup efforts, a soil cover was placed on the landfill in 1967 when the site was turned over to the Snohomish County Parks and Recreation Department. Community Transit has been continuously operating a 400-space Park and Ride and active transit center on the site since 1994, as authorized by an Operation and Maintenance Agreement with Snohomish County. As of November 2016, the date of the latest periodic review of the site by Ecology, the cleanup actions at the site appear to be protective of human health and the environment (Ecology 2016).

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.

There is the potential for hazardous materials to be encountered during site grading or subsurface work. None of the sites identified in the Ecology database are being considered for potential easement or property acquisition as part of the Swift Orange Line BRT project; the closest easement acquisition site is about 0.1 mile from a contaminated site. Due to this and the fact that the improvements will generally be covered in impervious surfaces following completion of construction, there is a low risk for long-term effects associated with past hazardous releases.

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.

Operation of the Swift Orange Line BRT project is not expected to generate any hazardous wastes. Maintenance of buses or other equipment that will be used along the route will occur at maintenance facilities, and any wastes that might be generated at those locations will be managed and disposed of in accordance with Community Transit’s existing environmental management system and operational procedures.

4) Describe special emergency services that might be required.

Other than remediation of potential minor spills, there are no special emergency services known to be needed for construction or operation of the Swift Orange Line BRT project. None of the sites will have security fencing or other infrastructure that would complicate emergency service access, and no hazardous materials will be stored that might require specialized fire response.
5) **Proposed measures to reduce or control environmental health hazards, if any:**

To address potential fluid spills from an active bus (e.g., oil, anti-freeze, hydraulic fluids, etc.) before they become more significant, Community Transit Operations Supervisors carry emergency spill kits and fire extinguishers. These spill kits and fire extinguishers are also stored at the transit center terminals and are available to Coach Operators. The spill kits include materials to stop the spilled fluids from leaving the immediate spill area, products to absorb and pick up the spilled fluids, and products to clean the concrete or asphalt after most of the spilled fluid has been removed. Coach Operators and Operations Supervisors receive training for using the spill kits to clean up potential spills.

Community Transit has an active bus inspection and maintenance program that includes: Coach Operator pre-trip and post-trip inspections, scheduled mechanic inspections and repairs by trained bus mechanics, and a system to receive community observations, complaints, and other comments. Coach Operator pre-trip inspections and preventative maintenance by skilled mechanics significantly reduce the likelihood and potential severity of fluid spills from buses. Post-trip Coach Operator inspections, regularly scheduled maintenance, and a clear communication path for observant riders and citizens further reduce the chance of any visible spill becoming more significant. These maintenance and inspection activities help keep buses functioning as designed and significantly reduce the potential for spills.

For the former Emander Landfill, Community Transit will coordinate with Ecology and Snohomish County Solid Waste to ensure that appropriate measures are taken if subsurface work is required in the vicinity of or within the former landfill area. Community Transit will make its contractor aware of known hazardous material sites in the project vicinity, including the Emander Landfill. The contractor will be required to have training in the recognition of potential hazardous materials during project work and a site-specific Soil Management Plan (approved by Ecology) for any work that might encounter the existing landfill cap at McCollum Park. In the event that any hazardous materials, either in soils or groundwater, were encountered or suspected on the project site during construction, the contractor will be required to conduct appropriate characterization and prepare and implement excavation and treatment/disposal plans for those materials. Materials including contaminated soils will be disposed of only at approved landfills and only after any treatment required. Contaminated water would be treated and discharged or hauled away and disposed of as required by state and federal codes.

As project design and right-of-way plans are finalized, Community Transit will use the list of identified contaminated sites to confirm the likelihood of encountering contamination during project construction activities. In keeping with FTA standard procedures, Community Transit will conduct due diligence to limit liability in accordance with the EPA’s “All Appropriate Inquiries” (AAI) rule prior to beginning excavation in areas identified with a potential for encountering contamination. Community Transit would undertake a Phase I environmental site assessment to determine the potential presence of Recognized Environmental Conditions (REC) within those potentially contaminated areas.

Project construction will not generate any type of hazardous waste, although pre-existing contaminated material may be encountered during construction, such as site grading or subsurface work. During construction, the following minimization measures will be implemented to reduce temporary adverse impacts:

- Before beginning construction, the contractor will be required to submit a Site-Specific Health and Safety (SSHS) Plan to Community Transit for review and approval that includes a site-specific hazard analysis and requirements for material handling, storage, use and disposal, and requirements if hazardous waste is encountered during construction.
• Community Transit will make its contractor aware of known hazardous material sites in the project vicinity, and the contractor will be required to be trained to recognize potential hazardous materials during project work.

• In the event that any hazardous materials, either in soils or groundwater, are encountered on the project site during construction, the contractor will be required to conduct appropriate characterization and prepare and implement excavation and treatment/disposal plans for those materials.

• Materials including contaminated soils will be disposed of at approved landfills and only after any treatment required is conducted.

• Contaminated water will be treated and discharged or hauled away and disposed of as required by state and federal codes.

b. Noise

This section is summarized from the *Swift BRT Orange Line Noise Discipline Report* (ESA 2021b).

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

The Swift Orange Line BRT corridor passes through Lynnwood, Mill Creek, and unincorporated urban areas of Snohomish County. These areas are characterized by a mix of highly developed urban uses, including commercial/retail, public parks and facilities, single-family residential, and multi-family residential properties. Land uses along the corridor are classified as Category 2 (all residential uses) and Category 3 (schools, churches, libraries, and parks) per FTA methods.

The main noise source along the entire project corridor is motor vehicle traffic traveling on area roadways. The Average Daily Traffic (ADT) volumes throughout the corridor range from 8,000 to 43,200 daily trips, with the highest ADT volume on 164th Street SW/SE between Larch Road and SR 527.

FTA screening distance criteria were used to identify land uses in proximity to the Swift Orange Line BRT corridor that may be considered sensitive to noise. Land uses within 200 feet from the outer travel lanes along the proposed BRT corridor were examined. Numerous potential noise-sensitive receivers were identified within 200 feet of the project roadways, including single- and multi-family residences, schools and child-care facilities, churches, libraries, retirement homes, and hotels, as summarized by location in Table 2.

Due to the scale of the proposed project along an 11-mile corridor, the existing noise levels were estimated using two (2) methods, first as modeled based on the traffic volumes, and second by taking both short-term and long-term measurements at representative locations. To characterize ambient noise conditions at representative locations, long-term noise measurements were conducted (48-hour measurements) using precision sound level meters (SLMs). Measurement locations were chosen to measure outdoor environmental sound levels along the project corridor at the following four (4) locations: a single-family residence near the intersection of 68th Avenue W and 202nd Street SW in Lynnwood (near the western terminus at Edmonds College); a multi-family residential building near the intersection of 164th Street SW and North Road in Lynnwood; and two locations (east and west sides of the road) along 36th Avenue W, south of Maple Road. Noise monitoring results are summarized in Table 3. Modeled results for all locations are included in the *2021 Noise Discipline Report (Amended)* (ESA 2021b).
### Table 2  Noise-Sensitive Receivers

<table>
<thead>
<tr>
<th>Roadway</th>
<th>From/To</th>
<th>Noise-Sensitive Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>68th Ave W</td>
<td>204th St SW to 196th St SW</td>
<td>Single- and Multi-Family Residential</td>
</tr>
<tr>
<td>196th St SW</td>
<td>68th Ave W to SR 99</td>
<td>Single- and Multi-Family Residential, Sandview School, Trinity Lutheran Church &amp; Schools</td>
</tr>
<tr>
<td></td>
<td>SR 99 to 48th Ave W</td>
<td>None</td>
</tr>
<tr>
<td>48th Ave W</td>
<td>196th St SW to Lynnwood Transit Center</td>
<td>Multi-Family Residential</td>
</tr>
<tr>
<td>46th Ave W</td>
<td>Lynnwood Transit Center to 200th St SW</td>
<td>Multi-Family Residential</td>
</tr>
<tr>
<td>200th St SW/ Alderwood Mall Blvd</td>
<td>46th Ave W to 33rd Ave W</td>
<td>La Quinta Inn, Alderwood Community Church, Multi-Family Residential</td>
</tr>
<tr>
<td>33rd Ave W</td>
<td>Alderwood Mall Blvd to 184th St SW</td>
<td>None</td>
</tr>
<tr>
<td>184th St SW</td>
<td>33rd Ave W to 36th Ave W</td>
<td>Multi-Family Residential</td>
</tr>
<tr>
<td>36th Ave W</td>
<td>184th St SW to Maple Road</td>
<td>Single- and Multi-Family Residential</td>
</tr>
<tr>
<td></td>
<td>Maple Road to 164th St SW</td>
<td>Single- and Multi-Family Residential, Korean Immanuel Pres. Church of Seattle</td>
</tr>
<tr>
<td>164th St SW</td>
<td>36th Ave W to Swamp Creek P&amp;R</td>
<td>Single- and Multi-Family Residential</td>
</tr>
<tr>
<td></td>
<td>Swamp Creek P&amp;R to Ash Way</td>
<td>Renew Covenant Church, Single- and Multi-Family Residential</td>
</tr>
<tr>
<td>Ash Way</td>
<td>164th St SW to Ash Way P&amp;R</td>
<td>Bright Star Child Care, Single- and Multi-Family Residential</td>
</tr>
<tr>
<td></td>
<td>Ash Way P&amp;R to Roundabout</td>
<td>Multi-Family Residential</td>
</tr>
<tr>
<td>164th St SW/SE</td>
<td>Ash Way to I-5</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>I-5 to Meadow Rd</td>
<td>Mill Creek Foursquare Church</td>
</tr>
<tr>
<td></td>
<td>Meadow Rd to Larch Rd</td>
<td>Single- and Multi-Family Residential</td>
</tr>
<tr>
<td></td>
<td>Larch Rd to North Rd</td>
<td>Martha Lake Park, Single- and Multi-Family Residential</td>
</tr>
<tr>
<td></td>
<td>North Rd to Mill Creek Blvd</td>
<td>Single- and Multi-Family Residential, Bright Star Day Care</td>
</tr>
<tr>
<td></td>
<td>Mill Creek Blvd to SR527</td>
<td>None</td>
</tr>
<tr>
<td>SR527</td>
<td>164th St SW to Dumas Rd</td>
<td>Mill Creek Library, Mill Creek Retirement Community, Templo Emanuel, Single- and Multi-Family Residential</td>
</tr>
<tr>
<td>Dumas Road</td>
<td>SR527 to Park Rd</td>
<td>Single- and Multi-Family Residential</td>
</tr>
<tr>
<td>128th St SE/SR96</td>
<td>Dumas Rd to P&amp;R Entry Dr</td>
<td>Single-Family Residential</td>
</tr>
</tbody>
</table>

### Table 3  Summary Results of Noise Measurements (dBA)

<table>
<thead>
<tr>
<th>Location</th>
<th>Day-Night Average Noise Level (DNL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>68th Avenue W and 202nd Street SW</td>
<td>69.6</td>
</tr>
<tr>
<td>164th Street SW and North Road</td>
<td>66.7</td>
</tr>
<tr>
<td>West side of 36th Avenue W, south of Maple Road</td>
<td>66.2</td>
</tr>
<tr>
<td>East side of 36th Avenue W, south of Maple Road</td>
<td>65.0</td>
</tr>
</tbody>
</table>
The noise level estimates and measurements collected along the project corridor indicate that existing noise levels are typical of what would be expected in developed, urban areas with high traffic levels along major arterials/state routes. In summary:

- Existing noise levels at sites with nighttime sensitivity (the numerous residences) range from 56.8 to 73.4 Ldn and are typical for urban commercial areas along heavily used arterials.

- The noise levels observed are generally above what is considered desirable for noise-sensitive uses, particularly where people sleep (e.g., levels at or greater than 65 to 67 dBA). However, when residential uses are within densely developed urban or commercial areas, exterior noise levels can be reduced to acceptable interior levels (approximately 45 dBA) through the use of design measures. As many of the Category 2 uses appear to be relatively new (constructed within the last 15–20 years), it is likely that reductions in noise levels of 20 to 25 dBA at these locations are realized when windows and doors are closed.

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.

**Short Term Noise** - Under state and local noise standards, construction activities are exempt from regulation during daytime hours. The periods of noise-exempt daytime construction hours are set by each jurisdiction, and vary accordingly along the project corridor. Chapter 10.12.500 of the Lynnwood Municipal Code exempts sounds originating from temporary construction sites between the hours of 7:00 a.m. and 10:00 p.m. Chapter 9.14.060 of the Mill Creek Municipal Code exempts sounds created by construction equipment and vehicles during daytime hours (the hours between 7:00 a.m. and 9:00 p.m. on weekdays, and between 8:00 a.m. and 9:00 p.m. on weekends), operated at designated construction sites, when operated in compliance with permits issued by the City of Mill Creek or other authorized authority. Chapter 10.01.050 of the Snohomish County Code exempts sounds created by construction equipment, including special construction vehicles, at temporary construction sites during daytime hours (between the hours of 7:00 a.m. and 10:00 p.m. on weekdays and 9:00 a.m. and 10:00 p.m. on weekends).

During construction, there would be temporary increases in sound levels near active areas of construction and along roadways used for construction vehicles. The increase in noise levels would depend on the type of equipment used and the amount of time it is in use. Typical construction equipment could include trackhoes, bulldozers, graders, pavers, concrete, and haul trucks. Approximate sound levels for these and other types of equipment are shown in Table 4, as well as attenuated levels at distance.

<table>
<thead>
<tr>
<th>Types of Equipment</th>
<th>Noise Levels (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At 50 feet</td>
</tr>
<tr>
<td>Bulldozer</td>
<td>85</td>
</tr>
<tr>
<td>Truck</td>
<td>84</td>
</tr>
<tr>
<td>Scraper</td>
<td>85</td>
</tr>
<tr>
<td>Paver</td>
<td>85</td>
</tr>
<tr>
<td>Crane (Mobil)</td>
<td>83</td>
</tr>
<tr>
<td>Generators</td>
<td>82</td>
</tr>
<tr>
<td>Compressors</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: FTA 2018.
Construction activities will be focused at the *Swift Orange Line BRT* station locations, which are dispersed along the project corridor (see Figure 1), and in areas of proposed roadway improvements.

To the extent feasible, construction activities will occur during noise-exempt daytime hours. However, portions of the construction may require some night and/or weekend work to minimize impacts on traffic during weekday daytime hours throughout the highly congested project corridor. Consistent with proposed construction phasing, any potential noise impacts associated with necessary nighttime and/or weekend construction at a specific station or roadway improvement site will be limited in duration.

**Long-term Noise** – The results of the FTA noise impact assessment indicate that operation of the *Swift Orange Line BRT* project will not result in significant noise impacts in most areas along the corridor. This is due to the relatively high existing noise levels and the comparatively lower levels of noise that will be associated with future *Swift BRT* buses. The existing noise levels and distance to the noise source (e.g., the distance between a home and passing buses) are the key elements that the FTA methodology considers when assessing impact.

Results show that a total of nine (9) residential properties could be moderately impacted. All of those receivers are on 36th Avenue W, south of Maple Road.

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

**Short-term Mitigation** - Sounds originating from temporary construction sites as a result of construction activity are exempt from both state and local regulations. Limiting construction activities to daytime hours to the greatest extent feasible will minimize impacts on nearby residential properties, which are most sensitive to environmental noise during nighttime hours. Additional minimization measures to reduce construction noise impacts could include the following:

- Use of properly sized and maintained mufflers.
- Use of engine silencers or enclosures.
- Placement of stationary, background noise-generating equipment such as generators, pumps, and compressors away from nearby sensitive receivers.
- Use of portable noise barriers to screen equipment from nearby sensitive receivers.

Project construction will likely require intermittent nighttime work due to the high traffic volumes that use the project corridor and the permitting requirements that will be necessary for the project. This work will be limited in duration and will occur in phases along the corridor. Noise variances may be necessary from the jurisdictions along the project corridor. The Mill Creek and Lynnwood municipal codes do not specify a process for securing a noise variance; procedures will need to be verified with the Cities. Snohomish County provides allowances for a "Modified Standards Permit" under SCC 10.01.060.

Before and during the entire construction period, Community Transit’s project outreach staff will be able to assist citizens by providing up-to-date information on proposed construction activities and responding to and assisting in resolving any noise complaints that may be received.

Mitigation measures are considered when a proposed project will likely result in impacts. The results of the FTA noise impact assessment described above indicate that the *Swift Orange Line BRT* project could result in moderate impacts. FTA considers the determination of mitigation measures for moderately impacted receivers to be project-specific because the threshold range for a moderate impact varies from 5 to 7 dB based on ambient noise levels. Mitigation measures
would be considered when the project noise level is close to the upper threshold of the moderate impact range. FTA suggests that mitigation measures may not be needed when the project noise level is close to the lower threshold of the moderate impact (FTA 2018). For the Swift Orange Line BRT project, mitigation measures would be required if the project noise level exceeds the moderate impact threshold by 2 dBA. Table 5 includes the results for moderately impacted receivers from Table 4.

### Table 5 Determination of Mitigation Requirement

<table>
<thead>
<tr>
<th>Receiver ID</th>
<th>Project Noise Level (dBA)</th>
<th>Moderate Impact Threshold (dBA)</th>
<th>Increase over Moderate Impact Threshold (dBA)</th>
<th>Mitigation Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B05</td>
<td>59.8</td>
<td>59.5</td>
<td>0.3</td>
<td>No</td>
</tr>
<tr>
<td>B06</td>
<td>60.1</td>
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<td>No</td>
</tr>
<tr>
<td>B07</td>
<td>58.4</td>
<td>58.2</td>
<td>0.2</td>
<td>No</td>
</tr>
<tr>
<td>B08</td>
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<td>No</td>
</tr>
<tr>
<td>B09</td>
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<td>60.3</td>
<td>0.2</td>
<td>No</td>
</tr>
<tr>
<td>B10</td>
<td>60.6</td>
<td>60.3</td>
<td>0.3</td>
<td>No</td>
</tr>
<tr>
<td>B11</td>
<td>58.7</td>
<td>57.7</td>
<td>1.0</td>
<td>No</td>
</tr>
<tr>
<td>B12</td>
<td>58.8</td>
<td>57.2</td>
<td>1.6</td>
<td>No</td>
</tr>
<tr>
<td>B13</td>
<td>59.0</td>
<td>57.2</td>
<td>1.8</td>
<td>No</td>
</tr>
</tbody>
</table>

None of the moderately impacted receivers would experience an increase of greater than 2 dBA over the moderate impact threshold. It should be noted that the existing environment in the vicinity of the moderately impacted receivers includes bus operations. The project would not introduce a new noise source to those receivers. In addition, noise walls and other noise-obstructing measures would not be effective in this area due to the frequent breaks in the roadway for driveways, easements, and other curb cuts. Therefore, mitigation measures would not be warranted for those receivers.

### 8. Land and Shoreline Use

**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.**

Land use along the Swift Orange Line BRT corridor is highly urbanized and is a mixture of commercial, residential, park, and institutional (see the attached Plan Set). The stations are proposed at existing signalized intersections with crosswalks and sidewalk access into the neighborhoods and business areas. Neighboring uses include single-family and multi-family residential properties, numerous commercial businesses (e.g., Taco Time, Bank of America, Shell Gas Station, Regal Cinemas, Subway, and many others), and several parks and recreation facilities (although the project corridor directly crosses only McCollum Park). Neighboring uses that are considered noise-sensitive receivers include multi-family residential structures and single-family residences; the Mill Creek Retirement Community; the Mill Creek Library; the Sandview School and Bright Star Day Care/Child Care; several churches (Trinity Lutheran Church & School, Alderwood Community Church, Korean Immanuel Presbyterian Church of Seattle, Renew Covenant Church, Mill Creek Foursquare Church, Templo Emanuel); and a hotel (La Quinta Inn) (ESA 2021b).

**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**
Swift Orange Line Bus Rapid Transit (BRT) Project

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 lies within urban roadway corridors. The corridor has not been used as working farmlands or working forest lands in recent history. No agricultural or forest land will be converted as a result of this 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:

There are no working farm or forest lands in the vicinity of the project corridor.

c. Describe any structures on the site.

Structures within the project footprint include existing local bus stops, utility cabinets, lighting fixtures, and other roadway infrastructure.

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

No structures will be demolished as a result of the project. The project will relocate approximately ten (10) existing local Community Transit stops adjacent to the proposed BRT stations.

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

The zoning designations for properties adjacent to the project are listed below by local jurisdiction.

Snohomish County:
- Business Park
- Community Business
- Urban Center
- Low Density Multiple Residential
- Multiple Residential
- Neighborhood Business
- Residential 7,200 SF
- Residential 9,600 SF

City of Lynnwood:
- College District Mixed Use
- Public
- Neighborhood Commercial
- Highway 99 Mixed Use
- Highway Commercial
- City Center West
- City Center North
- City Center Core
- Alderwood – City Center Transition Area
- Planned Regional Center
- Multiple Residential High Density
- Multiple Residential Medium Density
- Residential 8,400 SF

City of Mill Creek:
- Business Park
- Community Business
- Planned Community Business
- Office Park
- Mixed Use/High Density Residential
- High Density Residential
- Medium Density Residential
- 7,200 Planned Residential Development
- Low Density Residential
f. **What is the current comprehensive plan designation of the site?**

**Snohomish County:**
- Urban High Density Residential
- Urban Commercial
- Urban Center
- Transit/Pedestrian Village
- Public/Institutional Use
- Urban Medium Density Residential
- Urban Low Density Residential (4–6 du/acre)

**City of Lynnwood:**
- Public Facilities
- Mixed Use
- Low-Density Single-Family
- High-Density Single-Family
- Medium-Density Multi-Family
- High-Density Multi-Family
- Highway 99 Corridor
- Local Commercial
- Regional Commercial
- Parks, Recreation and Open Space
- City Center
- Alderwood-City Center Transition Zone
- Mixed-Use Urban Center MUGA

**City of Mill Creek:**
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use/High Density Residential
- Community Business
- Open Space - Private
- Open Space - Public
- Town/Village Center
- Public & Quasi Public

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

The project does not lie within any Shoreline Master Program zone.

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

Impacts to critical areas by the project include approximately 1,780 SF of low-functioning, overlapping stream/wetland buffer near North Creek within the City of Mill Creek from construction of the pullout for the 164th Street SE westbound station at Mill Creek Boulevard. The low-functioning buffer is a grass strip between the sidewalk and adjacent parking lot with buried utilities and landscaping. An additional 488 SF of lawn habitat in the outer edge of the Wetland C buffer at McCollum Park will be impacted by the installation of a stormwater media filter drain to treat stormwater runoff from the new parking lot at the eastern terminus. Total buffer impacts from the project is approximately 2,268 SF.

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

No people would reside within the completed project. The project would add approximately six (6) Community Transit Coach Operators operating BRT buses and approximately four (4) other Community Transit support staff within the corridor at any given time.
j. Approximately how many people would the completed project displace?

The project will not displace any people.

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

No displacement impacts would occur with implementation of the project. No mitigation is required.

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

Most of the project corridor lies within the area zoned for transportation use (i.e., the road right-of-way). The project will modify, or in some limited locations expand, the current road right-of-way, by adding a Swift station with improved pedestrian facilities. The project is consistent with current zoning designations and will support current and future land uses. The project is consistent with existing transportation uses and is not expected to impact existing or planned land uses.

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

No agricultural or forest land impacts would occur with implementation of the project. No mitigation is required.

9. Housing

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

The Swift Orange Line BRT is a transit project; no housing is included.

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

No housing would be eliminated as a result of implementation of the project.

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

No impacts are anticipated; thus no mitigation is required.

10. Aesthetics

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

The tallest structure will be the iconic marker at approximately 16 feet 4 inches (as shown on the rendering on Figure 2). Other structures will be the station shelters at a maximum height of approximately 11 feet, and the driver restrooms at the termini, which are just over 16 feet in height.
b. **What views in the immediate vicinity would be altered or obstructed?**

The *Swift* Orange Line BRT project consists of two (2) main visual elements: the *Swift* BRT stations and associated roadway improvements; and the proposed transit speed and reliability improvements. Viewers in the project corridor would see the new transit stations located at signalized intersections on average every 0.75-mile along the 11-mile corridor. Each station would have a 60-foot by 16-foot raised loading platform with a pedestrian shelter and windscreens, an iconic marker, informational kiosks, next bus arrival signage, up to two (2) ticket vending machines, two (2) ORCA Readers, bench seating, trash cans, and station lighting. In front of each station would be a concrete bus pad, no larger than 70 feet by 16 feet. The stations are designed with downward and inward-facing lighting to minimize the potential for glare. Each station would also include a taller, internally lit iconic marker, or a wayfinding sign, located just outside of the shelter to help the community identify the station location.

The station design was developed with Crime Prevention Through Environmental Design (CPTED) principles in mind to minimize hiding places, so each station tends toward being visually transparent/easy to look through from either the street or abutting property. CPTED principles also discourage creating bright spots and/or shadows, so the lighting is relatively consistent with the surrounding environment, without abrupt lighting variations. The *Swift* Orange Line BRT stations would not diminish the existing or future visual character or quality of the corridor or the individual intersections, nor would they obstruct or otherwise significantly alter the view characteristics of the surrounding properties.

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

The project will not result in any aesthetic impacts, and no mitigation is required.

11. **Light and Glare**

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

Lighting proposed for the new bus shelters would be a new source of light in some locations; however, the proposed lighting is diffuse and directed downward and inward toward the shelter. The roadway corridor where all shelters are proposed is currently lighted by street lights, lights from moving vehicles, and lighting from the surrounding commercial buildings and signage. Lighting from the shelters will not create a noticeable increase in ambient lighting, nor would it affect any day or nighttime views. Lighting modifications are also proposed at the roadway improvement locations where the improvements will require the relocation of existing street lighting, and/or new street lighting will be installed to maintain existing pedestrian light levels.

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

Street lighting modifications will be consistent with the existing street lighting throughout the corridor. The *Swift* Orange Line BRT project would not create any new source of substantial light or glare that would adversely affect day or nighttime views in the area. Project lighting will not create a safety hazard.

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

There are no off-site sources of light or glare that would affect the project.
d. Proposed measures to reduce or control light and glare impacts, if any:

No light or glare impacts would result from implementation of the project. No mitigation is required.

12. Recreation

Portions of this section are summarized from the Swift BRT Orange Line Section 4(f) Discipline Report (ESA 2020e).

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

A number of parks and recreation facilities are within 0.25-mile of the approximate 11-mile project corridor. Table 6 lists the resources closest to the corridor by jurisdiction, but is not intended to be a comprehensive inventory.

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Lynnwood</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| City of Lynnwood Municipal Golf Course | 20200 68th Avenue W                | Golf Course  
Features: 18-holes, parking                                                                                     |
| Gold Park                              | 6421 200th Street SW               | Neighborhood Park (6.44 acres)  
Features: forested area, stream, picnic area, trails, wildlife habitat, parking                                  |
| Scriber Lake Park                      | 5322 198th Street SW               | Community Park/Open Space (22 acres)  
Features: lake, wildlife habitat, trails, picnic areas, restrooms, parking                                       |
| Mini Park at Sprague's Pond            | 5200 200th Street SW               | Mini Park (0.5 acre)  
Features: play structures, picnic area, trail, wildlife habitat, parking                                            |
| Scriber Creek Park                     | 20015 Cedar Valley Road           | Neighborhood Park/Open Space (3.8 acres)  
Features: creek, wildlife habitat, trails, benches, picnic area, parking                                            |
| Scriber Creek Trail                    | Scriber Lake Park to Lynnwood Transit Center | Local Trail (1.5 miles)  
Features: 8-foot wide pedestrian trail, nature views, connection to regional trails                            |
| Wilcox Park                            | 5215 196th Street SW              | Community Park (7.2 acres)  
Features: flag plaza, bandstand, picnic area, play structures, tot lot, basketball court, restrooms, parking     |
| Veterans Park                          | 44th Avenue W and Veterans Way (194th Street SW) | Mini Park (0.87 acre)  
Features: military memorial, benches                                                                          |
| Heritage Park                          | 19921 Poplar Way                   | Community Park (2.82 acres)  
Features: historic buildings, museum, library, playground, picnic areas, restrooms, parking                    |
<p>| Pioneer Park                           | 18400 36th Avenue W               | Neighborhood Park (5.8 acres)                                                                                   |</p>
<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Features: play structures, tennis courts, trails, picnic area, parking</td>
</tr>
<tr>
<td>Stadler Ridge Park</td>
<td>17428 33rd Place W</td>
<td>Neighborhood Park (2 acres) Features: play structures, trails, picnic area</td>
</tr>
<tr>
<td>Spruce Park</td>
<td>16864 36th Avenue W</td>
<td>Neighborhood Park (4.5 acres) Features: play structures, tot lot, basketball court, picnic area, trails, restrooms, parking</td>
</tr>
<tr>
<td>Snohomish County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martha Lake Park</td>
<td>16300 E Shore Drive</td>
<td>Community Park (6 acres) Features: lake, fishing, nature area, picnic area, play structures, parking</td>
</tr>
<tr>
<td>McCollum Park</td>
<td>600 128th Street SE</td>
<td>Community Park (78 acres) Features: BMX track, picnic area, playground, pool, restrooms, park and ride lot</td>
</tr>
<tr>
<td>North Creek Trail</td>
<td></td>
<td>Regional Trail (7.25 miles) Features: connections to other regional trails</td>
</tr>
<tr>
<td>City of Mill Creek</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel Creek Park</td>
<td>1900 164th Street SE</td>
<td>Community Park Features: basketball, play area, trails, picnic area</td>
</tr>
</tbody>
</table>

The project corridor crosses only one (1) of these recreation facilities: McCollum Park, which is adjacent to the McCollum Park Park & Ride at the eastern terminus of the Swift Orange Line project. As such, only McCollum Park is described in detail here.

McCollum Park is a 78-acre park that combines open space, wetlands, and woodlands and provides numerous active and passive recreation opportunities. The park is located one-half mile east of I-5 on 128th Street SE. Its nature trails, ball fields, outdoor pool, walking path, picnic shelter, and BMX track make this park a popular destination for individual outings as well as large-scale organized activities (Snohomish County 2019a). The park also serves as the northernmost trailhead for North Creek Trail, which extends to the Sammamish River Trail at WA 522. The park is open daily, from 7 a.m. to dusk.

The area surrounding the park was at one time known as Emander. McCollum Park and the adjacent park & ride are built on top of the former Emander Landfill. The land came under County ownership in 1922 with gravel mining in operation by 1929 (Ecology 2011). This pit was used for waste disposal during the late 1940s to late 1960s (NetrOnline 2019; USGS 1953, 1976; Ecology 2011). In 1967, the land was covered with soil and transferred to the Snohomish County Parks and Recreation Department for development of McCollum Pioneer Park (NetrOnline 2019; Ecology 2011). A group called the Pioneers of Emander was involved in the early improvements of the park, most notably the design, funding, and construction of the picnic shelter.

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

The existing McCollum Park Park & Ride, located adjacent to McCollum Park, serves current Community Transit bus riders. As part of the Swift Orange Line BRT project, the transit center and park & ride will be redesigned to accommodate both the existing and proposed bus service. A new BRT bus turnaround and layover will be constructed at the southwest corner of 128th
Street SE and Dumas Road. As part of the transit center redesign, a new approximately 60-stall (31,000 SF) parking lot will be constructed on an infrequently used, grassy area of McCollum Park. This parking lot will replace 0.71 acre of maintained lawn parkland, which does not currently have a specified park use. The new parking lot will be located south of the McCollum Park perimeter road (Park Road), and will support the new transit facility as well as patrons of the park and North Creek Trail. Park improvements proposed to mitigate for the removal of this open, grassy area will include improvements to the North Creek Trailhead, a new 10-foot sidewalk for future trail connection to the west, a new walkway and striped crossing to the transit center and park facilities, lighting, stormwater, and landscaping improvements.

Construction for this redesigned transit facility would last approximately 12 to 18 months. Construction of the new parking area would be specified as one of the first items of work in order to provide parking while a portion of the existing stalls within the park & ride are impacted by the construction. As such, other potential impacts on park and trail users may include noise, fugitive dust, and fumes from construction equipment during construction. These impacts will be short term and temporary.

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

Community Transit proposes a number of park improvements to mitigate for impacts on McCollum Park, including:

- Install a split-rail fence along the wetland buffer boundary associated with Sitka Creek south of the new parking lot.
- Improve the low-functioning buffer within the split-rail fence by removing approximately 350 CY of mounded dirt covered in Himalayan blackberry canes and installing native woody plants (4,600 SF) to enhance the North Creek Trail experience.
- Remove approximately 150 CY of fill dirt and debris to reclaim approximately 3,000 SF of usable parkland west of the new parking lot.
- Install new interpretative signage at the North Creek Trailhead.

Community Transit has been coordinating with the Snohomish County Parks and Recreation Department to identify these measures. These proposed park improvements will fully mitigate for permanent impacts on recreation caused by construction and operation of the Swift Orange Line BRT project.

13. Historic and cultural preservation

This section is summarized from the Swift BRT Orange Line Cultural Resources Assessment, and Supplemental Cultural Resources Assessment (ESA 2020b and 2021c).

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 Area of Potential Effects (APE) for the Swift Orange Line BRT project includes all areas where ground disturbance may occur, including excavation, grading, curb removal, and utilities work. The APE consists of discontiguous areas along the approximately 11-mile corridor where stations and other improvements are planned (see Figures 3 through 5). No ground disturbance or new construction is planned in the areas between these discontiguous portions of the APE. In
total, the APE is 237.83 acres in size and includes about 20 individual intersections/locations along the project corridor.

No historic-era National Register of Historic Places (NRHP) listed properties are within or adjacent to the APE. Two (2) historic-era NRHP-listed Historic Properties are within the broader study area but outside the APE. No cemeteries or traditional cultural properties have been recorded within the study area (DAHP 2019). An additional 13 historic-aged built environment resources were inventoried and recorded at the reconnaissance level on historic property inventory forms. All 13 resources are recommended to be Not Eligible for listing in the NRHP by the project historian.

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 records search conducted for the project resulted in the identification of 29 previous cultural resource surveys (eight [8] within the APE) and three (3) recorded archaeological sites within a one-half-mile radius of the project corridor. One (1) of the archaeological sites is a portion of the Seattle-Everett Interurban Railway – Alderwood Segment and Scriber Creek Segment. The site has not been formally evaluated for its potential eligibility for listing in the NRHP (DAHP 2019). Although none of the three (3) previously recorded archaeological sites are within the APE, an unrecorded segment of the Seattle-Everett Interurban Railway site was identified and recorded during a survey for the Swift Orange Line BRT project and is within the APE (as described below).

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 Swift Orange Line BRT project is receiving federal funding through the FTA and, as such, is also subject to NEPA and other federal environmental regulations. As per required by Section 106 of the National Historic Preservation Act, the FTA initiated consultation for this project with the Washington State Department of Historic Preservation (DAHP), the Confederated Tribes and Bands of the Yakama Nation, the Muckleshoot Indian Tribe, the Sauk-Suiattle Indian Tribe, the Snoqualmie Indian Tribe, the Stillaguamish Tribe of Indians of Washington, the Suquamish Indian Tribe of Port Madison Reservation, and the Tulalip Tribes of Washington on September 24, 2019. DAHP concurred with the proposed APE on September 26, 2019. The FTA and Community Transit, in consultation with DAHP and the same Affected Tribes, amended the previously defined APE on March 24, 2021 to address new design changes in 2021. DAHP concurred with the definition of the revised APE on March 31, 2021.

Environmental Science Associates conducted research to identify any recorded resources, which included review of the Washington Information System for Architectural and Archaeological Records Data (WISAARD) maintained by DAHP, the Snohomish County Assessor for built environment property construction dates, and DAHP’s Statewide Predictive Model for potential of encountering precontact-era archaeological resources.

Environmental Science Associates also conducted a surface and subsurface archaeological survey of the APE in October and November 2019, and April 2021. Field survey efforts were focused on areas of the APE containing proposed project elements with potential ground
disturbance—specifically, station locations, route platforms, walkways, site improvements, intersection improvements, and potential contractor staging areas. The surface survey was conducted across the accessible portions of the APE with rights-of-entry and containing proposed ground-disturbing activity and consisted of pedestrian transects across areas of proposed ground disturbance. The subsurface survey was conducted with the excavation of shovel test probes in portions of the APE that were described as Moderate or greater probability for cultural resources based on the results of DAHP’s predictive model, were proposed for ground-disturbing construction, and did not contain impervious surfaces or existing utility corridors. No artifacts, archaeological sites, or potential culture-bearing layers were identified during the surveys.

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.

The potential for encountering archaeological resources is low throughout the APE, and the Swift Orange Line BRT project is not expected to have any adverse effects on archaeological or historic resources. Community Transit will implement the following minimization measures to protect resources in the event of an inadvertent discovery:

- Community Transit will implement the Inadvertent Discovery Plan (IDP) that outlines protocols and procedures to be followed in the event of construction encountering cultural resources. The IDP will be included in the construction bid documents to ensure the protocols and procedures are implemented.
- All construction crews and Community Transit representatives will receive an IDP orientation at tailgate meetings prior to the start of construction.

14. Transportation

This section is summarized from the Swift BRT Orange Line Traffic Report (Casseday and TENW 2021). Detailed maps showing proposed modifications to existing roadway configures are included in the attached Plan Set.

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.

Street Network Characteristics - The Swift Orange Line BRT will operate along arterial streets in southwest Snohomish County and the Cities of Lynnwood and Mill Creek, where congestion is a regular occurrence with long peak period travel delays. Below is a listing of the street network, from west to east, noting the number of travel lanes, posted speed limits, and street characteristics including sidewalk, curb and gutter, or shoulder configuration, as well as general traffic volumes and peak period conditions, which are also included in Table 7.
### Swift Orange Line BRT Corridor Traffic Characteristics

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>From/To</th>
<th># Lanes</th>
<th>2024 Year of Opening</th>
<th>2004</th>
<th>Peak Speed Limit</th>
<th>Existing two way PM peak hour volume</th>
<th>Daily Traffic, Evening</th>
<th>% Trucks/Heavy Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>88th Ave W</td>
<td>204th Street SW to 196th Street SW</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>30</td>
<td>900</td>
<td>12,000**</td>
<td>1%</td>
</tr>
<tr>
<td>196th Street SW</td>
<td>88th Ave W to SR 99</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>35</td>
<td>1,850 to 2,100</td>
<td>25,400*</td>
<td>2%</td>
</tr>
<tr>
<td>196th Street SW</td>
<td>SR 99 to 48th Ave W</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>2,750</td>
<td>29,600*</td>
<td>2%</td>
</tr>
<tr>
<td>196th Street SW</td>
<td>48th Ave W to 38th Ave W</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>35</td>
<td>2,600</td>
<td>34,600 **</td>
<td>1%</td>
</tr>
<tr>
<td>48th Ave W</td>
<td>196th Street SW to 204th Street SW</td>
<td>2 to 3</td>
<td>2 to 3</td>
<td>2 to 3</td>
<td>35</td>
<td>650</td>
<td>8,800</td>
<td>1%</td>
</tr>
<tr>
<td>48th Ave W</td>
<td>200th Street SW to 204th Street SW</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>25</td>
<td>650</td>
<td>8,400**</td>
<td>4%</td>
</tr>
<tr>
<td>200th Street SW</td>
<td>SW Lynnwood Transit Center</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>25</td>
<td>650</td>
<td>8,400**</td>
<td>4%</td>
</tr>
<tr>
<td>Alderwood Mall Boulevard</td>
<td>44th Ave W to 33rd Ave W</td>
<td>4</td>
<td>4</td>
<td>4 to 5</td>
<td>30</td>
<td>1,350</td>
<td>19,700</td>
<td>2%</td>
</tr>
<tr>
<td>33rd Ave W</td>
<td>Alderwood Mall Blvd to 184th Street SW</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>30</td>
<td>950</td>
<td>10,800**</td>
<td>1%</td>
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<td>33rd Ave W to 38th Ave W</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>35</td>
<td>1,050 to 1,100</td>
<td>11,500 **</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>39th Ave W</td>
<td>184th Street SW to Maple Road</td>
<td>4 to 5</td>
<td>4 to 5</td>
<td>4 to 5</td>
<td>35</td>
<td>1,100</td>
<td>13,250</td>
<td>2%</td>
</tr>
<tr>
<td>30th Ave W</td>
<td>Maple Road to 164th Street SW</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>35</td>
<td>950</td>
<td>10,950</td>
<td>1%</td>
</tr>
<tr>
<td>164th Street SW</td>
<td>36th Ave W to Ash Way</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>40</td>
<td>2,000 to 2,050</td>
<td>33,800*</td>
<td>2-3%</td>
</tr>
<tr>
<td>Ash Way</td>
<td>164th Street SW to Ash Way P&amp;R</td>
<td>3 to 4</td>
<td>2 to 3</td>
<td>3 to 5</td>
<td>35</td>
<td>1,550</td>
<td>23,200</td>
<td>5%</td>
</tr>
<tr>
<td>Ash Way</td>
<td>Ash Way P&amp;R to Roundabout</td>
<td>2</td>
<td>2 to 3</td>
<td>2 to 3</td>
<td>35</td>
<td>1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>164th Street SW</td>
<td>Ash Way to Larch Road</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>35</td>
<td>2,900 to 3,800</td>
<td>43,000 to 54,500 **</td>
<td>2-3%</td>
</tr>
<tr>
<td>164th Street SE/SW</td>
<td>Larch Road to SR 527/Bothell Everett Highway</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>2,550 to 3,300</td>
<td>43,200*</td>
<td>2%</td>
</tr>
<tr>
<td>SR 527/Bothell Everett Highway</td>
<td>164th Street SW to Dumas Road</td>
<td>4 to 5</td>
<td>4 to 5</td>
<td>4 to 5</td>
<td>40</td>
<td>2,700 to 2,950</td>
<td>33,400**</td>
<td>2%</td>
</tr>
<tr>
<td>Dumas Road</td>
<td>SR 527/Bothell Everett Highway to SR 96/122nd Street SE</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>30</td>
<td>950 to 1,250</td>
<td>13,500</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Notes:**
- **2019 AADT traffic counts**
- **2016 AADT based on 2016 intersection PM peak hour turning movement counts**
- Peak hour/Daily traffic ranges from 6.7% to 7.7% in the corridor, per AADT counts.

Note that the daily traffic volumes shown are based on counts available at five (5) locations along the Swift Orange Line corridor, and daily volumes for the other segments were estimated by applying a K factor (peak hour volume/daily volume) to peak hour volumes at nearby intersections. Peak hour volumes in the corridor range from 6.7 percent to 7.7 percent of the daily traffic volume for the arterials, reflecting that there are several hours of the day in which the traffic volumes are similar and the peak has spread into multiple hours. This can be an indication of congestion and limitations on the throughput for vehicles in the corridor. The K factor for a roadway gives an indication of the portion of the daily traffic that occurs during the peak hour. Traditionally, a K factor for an urban roadway will be 10 percent, or the peak hour traffic volume represents 10 percent of the daily traffic. The K factors for segments along the Swift Orange Line range from 6.7 percent to 7.7 percent based on the average annual daily traffic (AADT) counts collected. These lower K factor values reflect multiple hours of traffic volumes comparable to the peak hour of the day – and extended peak period for these key arterials. The K factors are also an indication of extended levels of congestion along the Swift Orange Line corridor – another indication that transit is stuck in traffic along with the general traffic.

Directions of travel are typically separated by a shared center two-way left-turn lane or center median throughout the route. Proposed Swift stations are located adjacent to intersections with traffic signals and a formal pedestrian crosswalk. The route has pedestrian sidewalks along both sides of the corridor in most locations. The existing sidewalk width at the station locations...
exceeds the minimum width required to comply with ADA standards. In some cases, a landscape planter strip separates the sidewalk from the back of curb.

**Traffic Operations** – Traffic volume counts were collected at key intersections along the Swift Orange Line corridor, at intersections adjacent to the proposed stations, and at intersections where the BRT will turn along the route. The Swift Orange Line BRT will operate along a route with high traffic volumes and high levels of congestion. The stations will be located adjacent to intersections with traffic signal control, operated by the City of Lynnwood, Snohomish County, and WSDOT.

Morning and afternoon peak hour operation for these signalized intersections was evaluated using Synchro traffic operations software. The Synchro software evaluates each intersection in isolation, and the traffic counts evaluated reflect the traffic volumes that pass through the intersection. The Synchro analysis may not fully reflect the levels of congestion experienced in the corridor for two (2) reasons: first, the traffic counts reflect what and how much traffic actually gets through the intersection; and second, the intersection analysis is a stand-alone evaluation without consideration for the influence of traffic queues and backups between intersections. The Synchro intersection analysis results can be used as a comparison between baseline conditions and conditions for the project in the Swift Orange Line corridor.

Level of service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads and operating conditions. LOS A represents free-flow conditions with little or no delay, LOS E represents conditions at intersection capacity, and LOS F represents worst-case or overcapacity conditions (TRB 2010). Table 8 provides a summary of the current traffic operations for signalized intersections in the corridor adjacent to the proposed Swift Orange Line stations, both in the morning peak hour and afternoon peak hour.

### Table 8  Existing Traffic Operations in the Swift Orange Line Corridor

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>AM PEAK HOUR</th>
<th></th>
<th>PM PEAK HOUR</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>2019 Existing</td>
<td>2019 Existing</td>
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<tr>
<td></td>
<td>LOS  Delay</td>
<td>LOS  Delay</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>sec</td>
<td>sec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signalized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68th Ave W / 196th St SW</td>
<td>C 26.0</td>
<td>C 34.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 99 / 196th St SW</td>
<td>D 49.3</td>
<td>E 57.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48th Ave W / 196th St SW</td>
<td>C 27.0</td>
<td>D 51.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48th Ave W / 200th St SW</td>
<td>C 24.7</td>
<td>C 32.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46th Ave W / 200th St SW</td>
<td>B 14.6</td>
<td>B 19.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44th Ave W / 200th St SW</td>
<td>E 57.0</td>
<td>D 45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33rd Ave W / 188th St SW</td>
<td>B 17.0</td>
<td>C 28.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36th Ave W / 164th St SW</td>
<td>B 16.7</td>
<td>C 30.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swamp Creek P&amp;R / 164th St SW</td>
<td>B 17.5</td>
<td>B 12.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larch Way / 164th St SW</td>
<td>C 25.1</td>
<td>B 18.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Rd / 164th St SW</td>
<td>B 19.0</td>
<td>C 31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th Ave SE / Mill Creek Blvd / 164th St SE</td>
<td>D 47.7</td>
<td>D 46.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 527 / 164th St SE</td>
<td>C 24.3</td>
<td>C 22.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 527 / Dumas Rd</td>
<td>B 10.4</td>
<td>B 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dumas Rd / McCollum P&amp;R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The peak hour operation of these intersections adjacent to the Swift Orange Line BRT stations meets the City of Lynnwood, Snohomish County, and WSDOT (non-highway of statewide significance [Non-HSS]) LOS standards. LOS E is the standard for City of Lynnwood City Center arterials during the PM peak hour. LOS E is also the standard for County-owned urban arterials during the PM peak hour. Both SR 524/196th Street SW and SR 527/Bothell-Everett Highway are WSDOT arterial facilities designated as Non-HSS.

Non-Motorized Facilities and Connections to Transit - The Swift Orange Line corridor roadways have sidewalk facilities for pedestrian access to the proposed stations. With signalized intersections adjacent to the proposed BRT stations, there will be controlled pedestrian crossings of the arterials at each BRT station.

Bike lanes are in place on 68th Avenue W adjacent to Edmonds College and the proposed western terminus for the Swift Orange Line BRT. No bike lanes exist along 196th Street SW or on 44th Avenue W; however, there are bike lanes on roadways crossing 196th Street SW that lead to the Interurban Trail. The Interurban Trail is a regional facility that connects to the Lynnwood Transit Center, crosses 44th Avenue W with grade separation and runs adjacent to Alderwood Mall Boulevard; crossing the Swift Orange Line corridor again at 13th Avenue W/Meadow Road. No bike lanes are marked on Alderwood Mall Boulevard, 33rd Avenue W, 184th Street SW, nor on the south segment of 36th Avenue W. Bike lanes are marked on 36th Avenue W north of 172nd Street SW and extend along the length of 164th Street SE/SW from 36th Avenue W to SR 527/Bothell-Everett Highway. Bike lanes are marked on Ash Way north of 164th Street SW.

Safety - Five (5) years of vehicle crash data (WSDOT) were reviewed for the Swift Orange Line corridor to provide an indication of historical safety issues and potential safety issues for patron access to the Swift Orange Line BRT stations and potential safety issues for BRT operation in the corridor (Source: WSDOT, Crash Data and Reporting Branch, 2014–2018). A total of 2,732 crashes were reported and documented as having occurred along the corridor for the five (5) years reviewed, 2014 through 2018, including the following roadway segments of the Swift Orange Line BRT corridor:

- 68th Avenue W
- 196th Street SW/SR 524
- 44th Avenue W
- Alderwood Mall Boulevard
- 33rd Avenue W
- 184th Street SW
- 36th Avenue W
- 164th Street SE/SW
- Ash Way
- SR 527/Bothell-Everett Highway
- Dumas Road

The Swift Orange Line corridor experienced an average of 52 crashes per year per mile over the 11.3-mile corridor. At an average of 545 crashes per year, there were about 1.5 crashes per day – which, in concert with the recurring congestion in the corridor, results in incident-related delays to traffic and travel every day. The combination of recurring congestion and frequent incidents in the corridor contribute to delays for transit as well as general traffic. These numbers are comparable to what was documented for the Green Line BRT corridor, extending from the Seaway Transit Center at Boeing Everett to the Canyon Park BRT station in Bothell.

Of key interest in this safety review of the Swift Orange Line corridor is how riders/patrons will access the stations and if the vehicle crash data reveal any pedestrian or bicyclist safety issues. Pedestrian/vehicle crashes were reported at many locations along the Swift Orange Line corridor, having occurred both at intersections and at mid-block locations. Both 196th Street SW and 164th Street SE/SW are major arterials with multiple lanes, high traffic volumes, and high
levels of congestion throughout the day. Pedestrian and bicycle crashes have occurred at the proposed Swift Orange Line station locations.

**Future Baseline Conditions – 2024 and 2044** - The Swift Orange Line BRT service is planned to start in 2024. Traffic forecasts for both 2024, year of opening, and for a 20-year horizon, 2044 were developed for the background condition for the project. Year 2024 traffic volumes were developed for the PM peak hour by applying a 1.8 percent annual growth rate to the 2019 counts for the project. This growth rate reflects growth in the Lynnwood City Center, growth along SR 99 and Lynnwood commercial areas, and residential growth along the corridor.

Traffic operations along the Swift Orange Line corridor are expected to worsen in the PM peak period by year 2024, as shown in Table 9. Both congestion and travel delays will increase and transit reliability will decline, since buses will remain stuck in traffic and congestion during the peak period, along with general traffic.

By the year 2044, twenty (20) years beyond the arrival of light rail in Lynnwood, light rail will have been extended to Everett with light rail stations at Alderwood Mall, Ash Way, and the Mariner Park & Ride on the way to the Everett Station. The City of Lynnwood will have completed the BAT lanes on 196th Street SW, extended to SR 99, and will have constructed a new roadway across I-5 at Poplar Way, with connection to Alderwood Mall Boulevard at 33rd Avenue W. Snohomish County will have completed construction of BAT lanes on 164th Street SE/SW from SR 527/Bothell Everett Highway on the east to Alderwood Mall Parkway on the west with a seven (7) lane cross-section for the roadway. No additional transportation network changes are anticipated for this time period.

Year 2044 traffic volumes were developed based on the East-West Corridor Study (Snohomish County 2018) forecasts for year 2040, and based on the Lynnwood City Center planning effort for year 2040. The baseline travel demand for year 2044 reflects the continued increase in traffic volumes with increased congestion and travel delays. Future traffic operation at the Swift Orange Line station intersections is shown in Table 9, with low levels of service and high levels of intersection delays expected.

### Table 9  Future Year 2024 and 2044 Baseline Traffic Operations

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>2019 Existing Delay (sec)</th>
<th>2024 PM Peak Hour No Action Delay (sec)</th>
<th>2044 PM Peak Hour No Action Delay (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019 LOS</td>
<td>2024 LOS</td>
<td>2044 LOS</td>
</tr>
<tr>
<td>Signalized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68th Ave W / 196th St SW</td>
<td>C 34.4</td>
<td>D 38.6</td>
<td>E 63.3</td>
</tr>
<tr>
<td>SR 99 / 196th St SW</td>
<td>E 57.4</td>
<td>E 65.2</td>
<td>F 109.5</td>
</tr>
<tr>
<td>48th Ave W / 196th St SW</td>
<td>D 51.0</td>
<td>E 55.4</td>
<td>D 36.5</td>
</tr>
<tr>
<td>48th Ave W / 200th St SW</td>
<td>C 32.7</td>
<td>C 20.1</td>
<td>C 31.7</td>
</tr>
<tr>
<td>46th Ave W / 200th St SW</td>
<td>B 19.6</td>
<td>B 19.6</td>
<td>C 24.1</td>
</tr>
<tr>
<td>44th Ave W / 200th St SW</td>
<td>D 45.5</td>
<td>D 43.0</td>
<td>E 55.0</td>
</tr>
<tr>
<td>33rd Ave W / 188th St SW</td>
<td>C 28.8</td>
<td>C 30.7</td>
<td>D 46.7</td>
</tr>
<tr>
<td>36th Ave W / 164th St SW</td>
<td>C 30.3</td>
<td>C 33.4</td>
<td>D 50.8</td>
</tr>
<tr>
<td>Swamp Creek P&amp;R / 164th St SW</td>
<td>B 12.9</td>
<td>B 14.2</td>
<td>B 12.5</td>
</tr>
<tr>
<td>Larch Way / 164th St SW</td>
<td>B 18.8</td>
<td>C 21.2</td>
<td>D 37.6</td>
</tr>
<tr>
<td>North Rd / 164th St SW</td>
<td>C 31.9</td>
<td>D 35.6</td>
<td>F 80.8</td>
</tr>
<tr>
<td>9th Ave SE / Mill Creek Blvd / 164th St SE</td>
<td>D 44.9</td>
<td>D 54.3</td>
<td>E 67.2</td>
</tr>
<tr>
<td>SR 527 / 164th St SE</td>
<td>D 46.1</td>
<td>D 53.7</td>
<td>F 118.0</td>
</tr>
<tr>
<td>SR 527 / Dumas Rd</td>
<td>C 22.3</td>
<td>C 26.8</td>
<td>F 93.0</td>
</tr>
<tr>
<td>Dumas Rd / McCollum P&amp;R</td>
<td>B 14.0</td>
<td>B 14.9</td>
<td>C 26.7</td>
</tr>
</tbody>
</table>
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?

Community Transit operates bus service on fourteen (14) routes in Lynnwood, Mill Creek, and in unincorporated Snohomish County along the Swift Orange Line BRT corridor. Community Transit currently operates routes in the Swift Orange Line corridor, and transit speeds have declined in some locations due to congestion and backups along key arterials. Specifically, buses are stuck in traffic on both 196th Street SW and 164th Street SE/SW. Bus travel speeds below 15 miles per hour (mph) occur throughout the day on 196th Street SW, in both directions. Bus travel speeds are below 15 mph through much of the day in the 164th Street SE/SW corridor, with slowdowns in each direction near the I-5 interchange, between the Ash Way and 13th Avenue W stops.

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 involve a change in the number of parking spaces available at the McCollum Park Park & Ride lot due to reconfiguring the transit center layout. There are currently 447 parking spaces within the McCollum Park Park and Ride area (the area to the northeast of Park Drive). Of these existing parking stalls within the park and ride, 50 stalls are currently dedicated to Park use. The reconstructed transit center will displace 21 existing parking spaces within the park and ride area. As part of the improvements proposed for this project, a new approximately 60-stall parking area will be constructed south of Park Road to support the reconstructed transit facility as well as patrons of the park and North Creek Trail.

The parking at Edmonds College will also be reconfigured due to the addition of the Swift Orange Line BRT service. Immediately adjacent to the project area there are 220 existing parking stalls; the reconstructed transit center will remove 111 parking stalls and temporarily impact 34 parking stalls. These parking numbers are specific to the development area, and other parking on campus is unaffected. Edmonds College has future plans to reconfigure the existing parking lot to improve pedestrian access and circulation around the new transit center and connection to campus. These improvements are not part of the proposed Transit Center project.

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).

Traffic elements for the Swift Orange Line BRT project include modifications to streamline BRT movements through congested intersections. Below is a list of the traffic elements included in the Swift Orange Line BRT implementation package, along with an assessment of the anticipated benefits associated with the transit priority treatment.

- **SR 524/196th Street SW at SR 99/Pacific Highway**: Extend eastbound (EB) right-turn pocket to 250 feet and provide for EB BRT to bypass queues in the through lanes by using right lane to continue EB through intersection; provide for westbound (WB) BRT through movement from right lane. Provide for reliable travel through congested intersection. Queue bypass into the right lane could reduce EB BRT delay by 50 seconds per cycle.
• **33rd Avenue W at Alderwood Mall Boulevard**: Restripe/reconfigure traffic lanes on north leg of intersection to better accommodate BRT turning paths at intersection until future improvements can be completed by the City of Lynnwood with the Poplar Way Overpass project.

• **164th Street SW at Ash Way**: Construct southbound (SB) right-turn pocket to reduce delays for SB to WB BRT right turn. BRT will make four (4) movements through this intersection and transit signal priority would be granted for EB to NB left turns or SB to EB left turns. Queue bypass into the SB right lane could reduce SB BRT delay by 50 seconds per cycle. Overall intersection operation would improve.

• **Ash Way at Bus Loop**: Construct traffic signal control for this intersection to provide reliable bus movements into and out from the Ash Way Bus Loop and the direct access to I-5 high-occupancy vehicle (HOV) lanes. New signal will facilitate BRT movements from the proposed Swift Orange Line station on Ash Way.

• **164th Street SW at I-5 Interchange**: Modify both SB and northbound (NB) ramp intersections to provide BRT queue bypass in right lane for loop on-ramp. Construct dual right-turn control at the SB ramp intersection, which will provide improved control for SB right turns from the ramp, reduce SB approach delay by 20 seconds, and improve intersection operation overall plus reduce risks for transit movements through the intersection. Revise NB right-turn for signalized control, activated by BRT or pedestrian crossing demand. These changes will allow Swift BRT to bypass over 700-foot backups/queues EB and WB on 164th Street SW through the interchange at a modest impact to queues and delays for ramp traffic. Bringing BRT to the stop bar could cut out one (1) signal cycle of delay (2.5 minutes) during heavily congested periods of the day.

• **164th Street SW at North Road**: Construct far side BAT lane for EB BRT station, in ultimate roadway configuration, to facilitate EB BRT through movement from right lane. Provide for reliable travel through congested intersection.

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

   The project does not occur within the immediate vicinity of water, or air transportation. Portions of the corridor will be near existing or planned Sound Transit light rail service. The Swift Orange Line BRT project has been planned to provide service connections between BRT and light rail.

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?**

   As described above, a Synchro software analysis was performed to estimate the expected conditions with the project. Implementation of the Swift Orange Line BRT with frequent service is expected to entice some travelers to shift from driving alone to riding BRT and thereby displace vehicles from the roadway when riders make the shift from driving alone to riding Swift. This analysis conservatively reflects the addition of six (6) BRT vehicles in each direction during the peak hour and also reflects the displacement of five (5) private vehicles per Swift trip (-30 single-occupancy vehicle [SOV]) in the peak hour (+6 BRT – 30 SOV = - 24 vehicles in each direction during the PM peak hour). This conservative estimate of displaced traffic is likely to be low with the expected BRT ridership forecasted for 2024 and 2044. Based on this assumption for displaced traffic, the future traffic with Swift Orange Line BRT in operation is estimated to
have 24 fewer vehicles per hour in each direction at intersections along the Swift Orange Line corridor.

Intersection traffic operations with the Swift Orange Line BRT in the PM peak are expected to be slightly improved with the anticipated number of private vehicles displaced when travelers shift to Swift, as summarized in Table 10. The intersection analysis also reflects the implementation of the traffic elements of the project.

### Table 10  Future Years 2024 and 2044 PM Peak Hour Intersection Operations with the Swift Orange Line BRT Project

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>2019 Existing LOS (sec)</th>
<th>2024 No Action Delay</th>
<th>2024 With Project Delay</th>
<th>2044 No Action Delay</th>
<th>2044 With Project Delay</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>LOS</td>
</tr>
<tr>
<td>Signalized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68th Ave W / 196th St SW</td>
<td>C</td>
<td>34.4</td>
<td>D</td>
<td>38.6</td>
<td>C</td>
</tr>
<tr>
<td>SR 99 / 196th St SW</td>
<td>E</td>
<td>57.4</td>
<td>E</td>
<td>65.2</td>
<td>E</td>
</tr>
<tr>
<td>46th Ave W / 196th St SW</td>
<td>D</td>
<td>51.0</td>
<td>E</td>
<td>55.4</td>
<td>E</td>
</tr>
<tr>
<td>46th Ave W / 200th St SW</td>
<td>C</td>
<td>32.7</td>
<td>C</td>
<td>20.1</td>
<td>C</td>
</tr>
<tr>
<td>46th Ave W / 200th St SW</td>
<td>B</td>
<td>19.6</td>
<td>B</td>
<td>19.6</td>
<td>B</td>
</tr>
<tr>
<td>44th Ave W / 200th St SW</td>
<td>D</td>
<td>45.5</td>
<td>D</td>
<td>43.0</td>
<td>D</td>
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<tr>
<td>33rd Ave W / 188th St SW</td>
<td>C</td>
<td>28.8</td>
<td>C</td>
<td>30.7</td>
<td>C</td>
</tr>
<tr>
<td>36th Ave W / 164th St SW</td>
<td>C</td>
<td>30.3</td>
<td>C</td>
<td>33.4</td>
<td>C</td>
</tr>
<tr>
<td>Swamp Creek P&amp;R / 164th St SW</td>
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<td>12.9</td>
<td>B</td>
<td>14.2</td>
<td>B</td>
</tr>
<tr>
<td>Larch Way / 164th St SW</td>
<td>B</td>
<td>18.8</td>
<td>C</td>
<td>21.2</td>
<td>C</td>
</tr>
<tr>
<td>North Rd / 164th St SW</td>
<td>C</td>
<td>31.9</td>
<td>D</td>
<td>35.6</td>
<td>D</td>
</tr>
<tr>
<td>97th Ave SE / Mill Creek Blvd / 164th St SW</td>
<td>D</td>
<td>44.9</td>
<td>D</td>
<td>54.3</td>
<td>D</td>
</tr>
<tr>
<td>SR 527 / 164th St SE</td>
<td>D</td>
<td>46.1</td>
<td>D</td>
<td>53.7</td>
<td>D</td>
</tr>
<tr>
<td>SR 527 / Dumas Rd</td>
<td>C</td>
<td>22.3</td>
<td>C</td>
<td>26.8</td>
<td>C</td>
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<tr>
<td>Dumas Rd / McCollum P&amp;R</td>
<td>B</td>
<td>14.0</td>
<td>B</td>
<td>14.9</td>
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</tr>
</tbody>
</table>

Year 2024 traffic operations with the Swift Orange Line BRT are expected to be comparable or slightly better than baseline conditions. Proposed transit priority treatments with the project will facilitate transit movement in the highly congested corridor with some improvements for key transit movements on 164th Street SW across I-5 and at Ash Way and on 196th Street SW at SR 99. Traffic conditions at project study area intersections in the year 2044 along the Swift Orange Line BRT corridor are expected to continue to be congested with the project and proposed transit priority treatments. BRT ridership would displace SOVs from the corridor, thereby slightly improving the corridor operation when compared with baseline conditions. No adverse traffic impacts are anticipated with implementation of the Swift Orange Line BRT project.

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 project will not interfere with, affect, or be affected by the movement of agricultural and forest products in the area. The project will likely reduce traffic volumes by diverting some general purpose traffic to transit use, thus making the transport of goods easier.

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

No significant transportation impacts are expected during construction or operation of the Swift Orange Line BRT project. The project includes components that will improve transit throughput and facilitate transit movements, and the overall traffic conditions will improve with operation of the project. During project construction, the following minimization measures will be implemented to reduce temporary adverse impacts, such as traffic disruptions:
• Adjust construction hours to fall outside of heavy traffic periods (e.g., commute times), including the use of some night and weekend work.

• Prepare and implement a Traffic Control Plan that identifies approved routes for all construction traffic in addition to the BMPs that will be implemented to manage traffic near the construction sites.

• Lane closures for construction will be closely coordinated with the permitting agencies to minimize disruptions to traffic, with scheduled off-hour (night/weekend) construction of the in-lane concrete roadway.

15. Public Services

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 project is not expected to result in an increased need for any public services.

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

No public service impacts would result from implementation of the project. No mitigation is required.

16. Utilities

a. Circle utilities currently available at the site:
   electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other ___________

Electricity, refuse service, and sanitary sewer service are currently available at the BRT route termini (Edmonds College and McCollum Park). Refuse service, in the form of public trash cans, is available at many of the current Community Transit bus stops along the corridor.

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.

All Swift stations will include trash cans available for public use, otherwise no changes in utility services are proposed as part of the project. Some utilities in the vicinity of the new BRT facilities will have to be relocated. Construction will be coordinated with the local utility providers to minimize interruptions in services.
C. Signature

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  Todd M. Jacobs  
Position and Agency/Organization  Project Manager, Community Transit  
Date Submitted:  June 3, 2021
D. References


Figures and Plan Set
Figure 1. Project Corridor Map
Figure 2a. Conceptual Rendering of Swift Station, Daytime

Figure 2b. Conceptual Rendering of Swift Station, Daytime
Figure 2c. Conceptual Rendering of Swift Station, Nighttime

Figure 2d. Conceptual Rendering of Swift Station, Nighttime
Figure 3. Amended Area of Potential Effects, 1 of 3.
Figure 4. Amended Area of Potential Effects, 2 of 3.
Figure 5. Amended Area of Potential Effects, 3 of 3.