



# ***Everett Link Extension***

**Draft** Environmental Impact Statement

## TRANSPORTATION TECHNICAL REPORT

### Appendix G.1

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## Attachments

Attachment A Transportation Technical Analysis Methodology

Attachment B No Build and Build Conditions Traffic Data – Synchro Files

Attachment C No Build and Build Conditions Traffic Data – SimTraffic

Attachment D Existing Conditions Traffic Data – Existing LOS and Turning Movements

Attachment E Traffic Forecasting Technical Memorandum

Attachment F Puget Sound Regional Council's No Build Conditions

## Acronyms

|      |                                                    |
|------|----------------------------------------------------|
| AC   | advisory circulars                                 |
| ADA  | Americans with Disabilities Act                    |
| ADT  | Average Daily Traffic                              |
| AHJ  | authority having jurisdiction                      |
| AIR  | SR 99/Airport Road                                 |
| ALD  | West Alderwood                                     |
| ASH  | Ash Way                                            |
| AWSC | all-way stop control                               |
| BAT  | business access and transit                        |
| BI   | Broadway/I-5                                       |
| BNSF | Burlington Northern Santa Fe (Railway Corporation) |
| BRT  | bus rapid transit                                  |
| EB   | eastbound                                          |
| EGN  | SR 526/Evergreen                                   |
| EIS  | Environmental Impact Statement                     |
| EVLE | Everett Link Extension                             |
| EVT  | Everett Station                                    |
| FAA  | Federal Aviation Administration                    |
| FAR  | Federal Aviation Regulations                       |
| FHWA | Federal Highway Administration                     |
| FTA  | Federal Transit Administration                     |
| HCM  | Highway Capacity Manual                            |
| HOT  | high-occupancy toll                                |
| HOV  | high-occupancy vehicle                             |
| I    | interstate                                         |
| ITS  | intelligent transportation systems                 |
| LLE  | Lynnwood Link Extension                            |

|        |                                               |
|--------|-----------------------------------------------|
| LOS    | level of service                              |
| MAR    | Mariner                                       |
| MUTCD  | Manual on Uniform Traffic Control Devices     |
| NEPA   | National Environmental Policy Act             |
| NB     | northbound                                    |
| OFZ    | obstacle-free zone                            |
| OMF    | operations and maintenance facility           |
| OWSC   | one-way stop control                          |
| PSRC   | Puget Sound Regional Council                  |
| ROFA   | Runway Object Free Area                       |
| RPZ    | Runway Protection Zone                        |
| RSA    | Runway Safety Area                            |
| SB     | southbound                                    |
| SnoPUD | Snohomish County Public Utility District      |
| SR     | State Route                                   |
| ST3    | Sound Transit 3                               |
| SWI    | SW Everett Industrial Center                  |
| TIP    | Transportation Improvement Plan               |
| TOFA   | Taxiway Object Free Zone                      |
| TRB    | Transportation Research Board                 |
| TSA    | Transportation Security Administration        |
| TWSC   | two-way stop control                          |
| VHD    | vehicle hours of delay                        |
| VHT    | vehicle hours traveled                        |
| VMT    | vehicle miles traveled                        |
| WB     | westbound                                     |
| WSDOT  | Washington State Department of Transportation |

# 1 INTRODUCTION

## 1.1 Overview

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand Link light rail transit service northward from the Lynnwood City Center Station to the Everett Station area in Snohomish County, Washington (Figure 1-1). The Everett Link Extension (EVLE) Project would provide fast, reliable light rail service to regional residential and job centers in Snohomish County's growing urban areas. The proposed project is part of the Sound Transit 3 (ST3) Plan of regional transit system investments, funding for which was approved by voters in the region in 2016.

For this analysis, the EVLE Project consists of approximately 16 miles of light rail guideway, seven light rail stations, two parking facilities, and an operations and maintenance facility (OMF North). Sound Transit proposes to begin construction of the project in 2030. The current schedule for opening light rail service from the Lynnwood City Center Station to Everett Station is 2041. A shorter route connecting Lynnwood City Center to the SW Everett Industrial Center Station would open first in 2037 as the initial phase. OMF North would open by 2034, prior to opening of the light rail extension, as the facility is necessary for storing rail cars and supporting service for not only the extension to Everett, but also other parts of the regional system.<sup>1</sup> Parking facilities at the Mariner and Everett Stations would open by 2046.

One station, State Route (SR) 99/Airport Road Station, is currently considered provisional since planning, preliminary engineering, and environmental review are funded, but final design and construction are not. However, for purposes of this evaluation, all seven stations are assumed to be funded and open according to the schedule described above to capture all locations where impacts could occur. The station would be fully constructed and open for service when additional funding is identified.

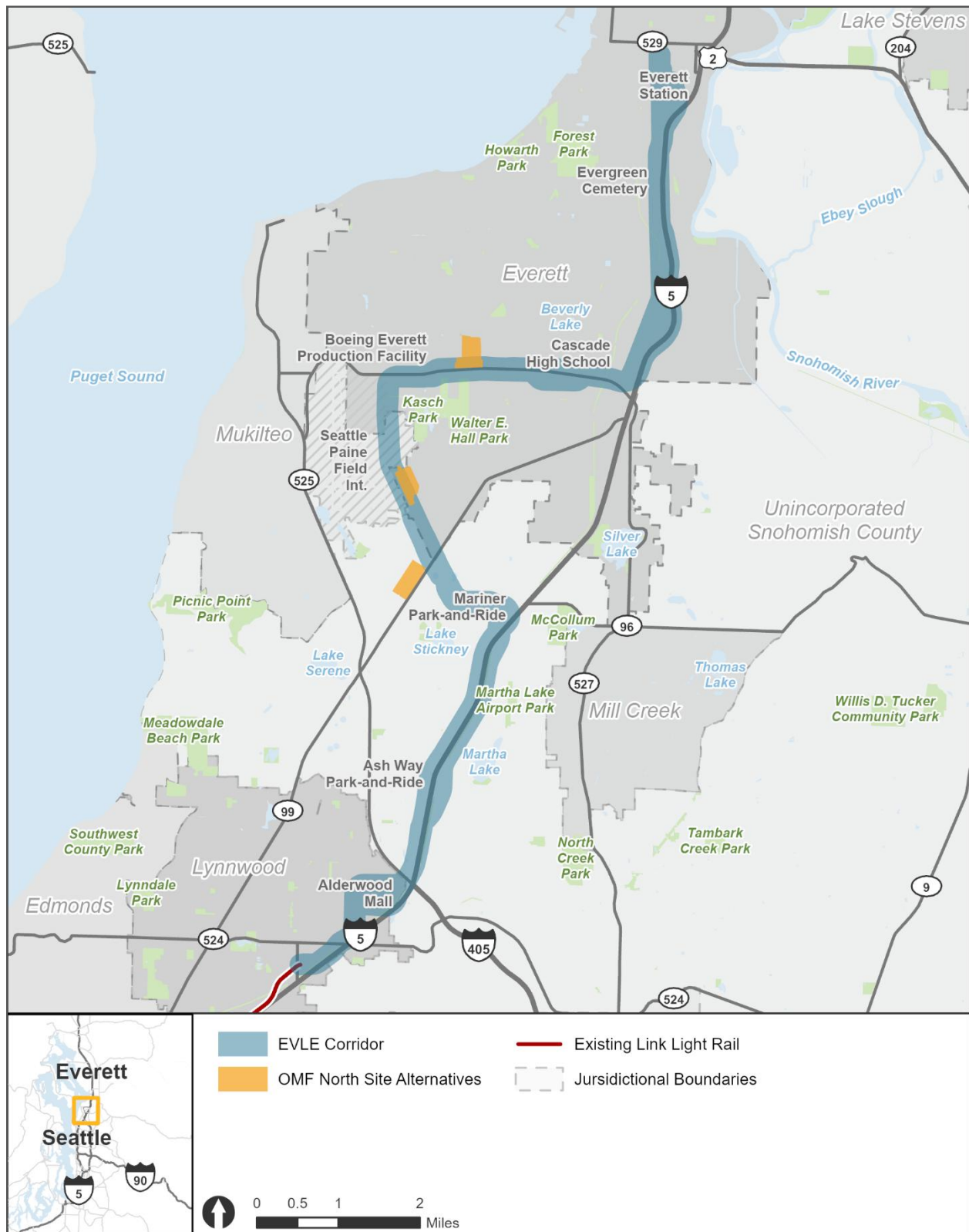
This document includes traffic analysis for the fully built project as well as the initial phase as described in Section 4.3.1.

---

<sup>1</sup> Construction of light rail projects is typically divided into sections, and construction would occur across different parts of the corridor between 2030 and 2046. For more information on the construction approach, see Draft EIS Appendix B.



Figure 1-1 EVLE Project Corridor



For planning and engineering purposes, the project is organized into eight geographic segments, discussed in this document from south to north. Within those segments, a total of 17 alignment alternatives and 18 station location alternatives are under consideration. These alignment and station alternatives are combined into Build Alternatives for analysis as shown in Table 1-1 and Figure 1-2.

Table 1-1 describes the alignment and station alternatives as follows:

- **Segments:** The eight alignment segments and corresponding abbreviations are:
  - West Alderwood (ALD).
  - Ash Way (ASH).
  - Mariner (MAR).
  - SR 99/Airport Road (AIR).
  - SW Everett Industrial Center (SWI).
  - SR 526/Evergreen (EGN).
  - Broadway/I-5 (BI).
  - Everett Station (EVT).
- **Alignment alternatives:** Alignment alternatives in each segment are identified with numbers (e.g., ALD-1).
- **Station alternatives:** Station alternatives in each segment are identified with letters (e.g., ALD-B).<sup>2</sup>
- **Build Alternatives:** Alignments and stations are combined to create the Build Alternative name (e.g., Station ALD-B is located on Alignment ALD-1, so this pairing is referred to as Alternative ALD-1B). If a preferred Build Alternative has been identified by the Sound Transit Board of Directors, it is indicated with an asterisk.
- **Design options:** A design option is an alternate design for a portion of a Build Alternative. It could be a different route or profile along a portion of an alignment, a different station configuration, or a different parking location. For example, in the West Alderwood Segment, the Alderwood Mall Boulevard Design Option is being considered for all three Build Alternatives.

---

<sup>2</sup> Letters identifying station alternatives are non-sequential in some segments; missing letters denote alternatives that did not perform as well as alternatives considered in the Draft EIS. For more information on the Alternatives Development process, see Draft EIS Chapter 2.

**Table 1-1 Alignment and Station Build Alternatives by Segment**

| Segment                             | Alignment Alternatives | Station Alternatives | Build Alternatives (Combined Alignment and Station) | Build Alternative Design Options Also Considered |
|-------------------------------------|------------------------|----------------------|-----------------------------------------------------|--------------------------------------------------|
| <b>West Alderwood</b>               | ALD-1                  | ALD-B                | ALD-1B                                              | Alderwood Mall Boulevard                         |
|                                     | ALD-2                  | ALD-D                | ALD-2D*                                             | Alderwood Mall Boulevard                         |
|                                     |                        | ALD-F                | ALD-2F                                              | Alderwood Mall Boulevard                         |
| <b>Ash Way</b>                      | ASH-1                  | ASH-A                | ASH-1A                                              | None                                             |
|                                     | ASH-2                  | ASH-D                | ASH-2D                                              | None                                             |
| <b>Mariner</b>                      | MAR-1                  | MAR-B                | MAR-1B                                              | Surface Parking                                  |
|                                     | MAR-2                  | MAR-D                | MAR-2D                                              | Surface Parking                                  |
| <b>SR 99/Airport Road</b>           | AIR-1                  | AIR-A                | AIR-1A                                              | None                                             |
|                                     | AIR-2                  | AIR-B                | AIR-2B                                              | None                                             |
| <b>SW Everett Industrial Center</b> | SWI-1                  | SWI-A                | SWI-1A*                                             | Lower                                            |
|                                     |                        | SWI-B                | SWI-1B                                              | None                                             |
|                                     |                        | SWI-C                | SWI-1C                                              | None                                             |
| <b>SR 526/Evergreen</b>             | EGN-1                  | EGN-A                | EGN-1A                                              | None                                             |
|                                     | EGN-2                  | EGN-B                | EGN-2B                                              | North Side of SR 526                             |
|                                     | EGN-3                  | EGN-E                | EGN-3E                                              | North Side of SR 526                             |
| <b>Broadway/I-5</b>                 | BI-1                   | None                 | BI-1*                                               | None                                             |
|                                     | BI-2                   | None                 | BI-2                                                | None                                             |
| <b>Everett Station</b>              | EVT-1                  | EVT-A                | EVT-1A                                              | None                                             |
|                                     | EVT-2                  | EVT-C                | EVT-2C*                                             | None                                             |
|                                     | EVT-3                  | EVT-D                | EVT-3D*                                             | None                                             |

\* Denotes preferred alternative

There are also three OMF North site alternatives under consideration as shown in Table 1-2 and Figure 1-2.

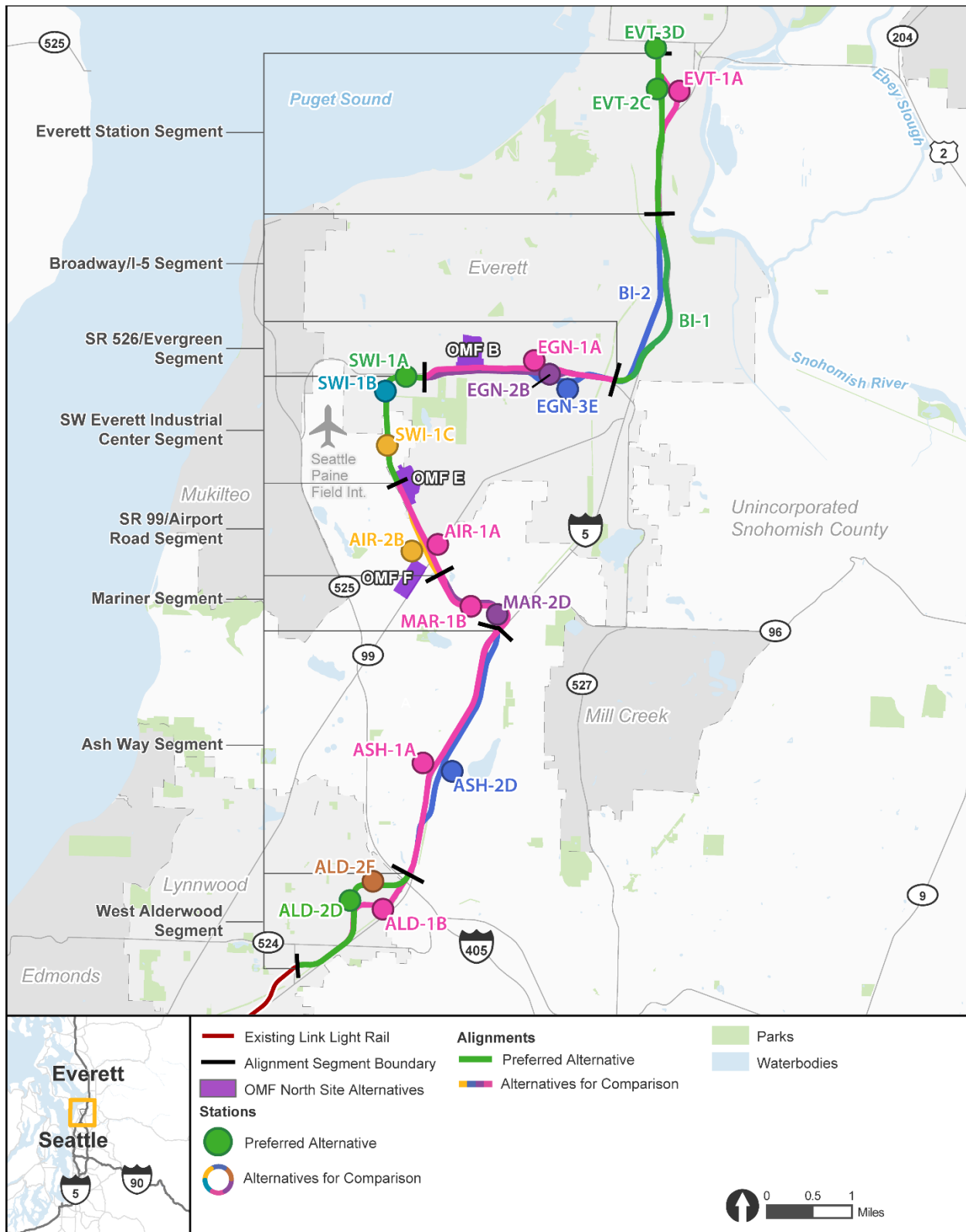
**Table 1-2 OMF North Site Alternatives**

| Build Alternative | Build Alternative Design Options Also Considered |
|-------------------|--------------------------------------------------|
| OMF Site F        | Lead Tracks to West Side of Airport Road         |
| OMF Site E        | None                                             |
| OMF Site B        | Lead Tracks to South Side of SR 526              |

Analysis of the Build Alternatives was based on the conceptual design drawings included in Draft Environmental Impact Statement (EIS) Appendix F.

The No Build Alternative describes the environment, including the transportation system, as it would exist in 2046 without the proposed project. The No Build Alternative uses 2046 as the year of analysis to align with the target date for completion of all EVLE Project components and the full buildout of the light rail capital projects included in the ST3 Plan.

Figure 1-2 EVLE Project Alternatives



## 1.2 Potential Design Refinements

In addition to the alternatives described above, the Draft EIS provides a qualitative evaluation of potential design refinements that could reduce overall project cost if applied to the alignment and station alternatives (for more information, see Draft EIS Chapter 2). The potential design refinements identified to date that could be considered in each segment, along with potential changes in impacts, are described in Draft EIS Chapter 4. Potential changes in impacts to transportation resources are also described in Section 4.9 below. If Sound Transit decides to include these refinements as part of the project prior to the Final EIS, they would be reflected in the conceptual design plans and evaluated in the Final EIS.

## 1.3 Purpose of Report

This report provides information about the potential transportation effects of the EVLE Project alternatives to compare alternatives and identify potential mitigation where potential project impacts were identified. This report is structured as follows:

- **Section 2** summarizes the analysis methods used to assess the alternatives in this report.
- **Section 3** discusses the existing (2023) transportation conditions for all elements of the transportation environment.
- **Section 4** describes the long-term impacts on all modes of travel for the No Build and all Build Alternatives.
- **Section 5** discusses expected impacts on all elements of the transportation environment due to project construction activities.
- **Section 6** describes the potential measures that could be implemented to mitigate the potential effects of the project.
- **Section 7** lists the sources used in preparing this report.

## 2 METHODOLOGY

National Environmental Policy Act (NEPA) regulations require that an EIS disclose impacts (i.e., effects) of a proposed action on the environment. NEPA requires an EIS to evaluate and disclose the “reasonably foreseeable environmental effects of the proposed agency action” (42 USC Section 4332). Reasonably foreseeable environmental effects are those that are sufficiently likely to occur during operation (long-term) or construction (short-term). Reasonably foreseeable environmental effects do not include effects that are speculative in nature or remote in time or place, or that are the result of a lengthy causal chain. For this analysis, reasonably foreseeable effects include all effects that are considered likely to result from the project over its operational lifetime within the study area of each resource.

This report includes analysis of impacts to the local and regional transportation system, including long-term impacts from project operations (operational impacts) and short-term impacts from project construction (construction impacts).

The methodology and assumptions used to analyze the transportation impacts of the EVLE Project are discussed in detail in the Transportation Technical Analysis Methodology included in Attachment A. The following information is included in the attached methodology:

- Introduction.
- Guiding Regulations, Plans, and/or Policies.
- Data Needs and Sources.
- Study Area and Area of Effect.
- Analysis Assumptions and Tools.
- Affected Environment.
- Transportation Resource Analysis and Measures.
- Mitigation Measures.
- Proposed Figures, Maps, or Other Data.
- Documentation.
- Data Developed for Use by Other Disciplines.
- References.

### 3 AFFECTED ENVIRONMENT

#### 3.1 Regional Transportation Network

This section describes the existing conditions of the regional roadway system through the EVLE Project corridor, shown in Figure 1-1. Performance measures used to describe these conditions include region-wide vehicle miles traveled (VMT), vehicle hours traveled (VHT), and vehicle hours of delay (VHD). For this regional analysis, 2018 is the analytical baseline year since that is the most complete and recent data available from the Puget Sound Regional Council (PSRC), published in 2022. In some cases, more recent observed data (e.g., ridership counts, crash history, parking utilization) has been included to supplement the 2018 baseline where PSRC model data was not available, or to provide context on post-COVID 19 travel conditions.

Within the EVLE Project corridor are two Regional Growth Centers, Everett and Lynnwood, and one Manufacturing Industrial Center, Paine Field/Boeing Everett Production Facility. These centers, designated by PSRC, are expected to continue adding housing and jobs (and related traffic) over the next 30 years. Regional roadway facilities within the study area include major highways and arterials, such as Interstate 5 (I-5), I-405, SR 99, SR 524, SR 525, and SR 526.

##### 3.1.1 Vehicle Miles/Vehicle Hours Traveled and Mode Share

VMT refers to total number of miles traveled by vehicles in an area over a given period of time. VHT refers to the total operating hours for all vehicles in an area over a given period of time. These statistics are used to describe the intensity of motor vehicle use in the region and increases in either or both are usually accompanied by increases in congestion. VHD is the total number of hours of delay relative to free-flow speed, meaning the average vehicle speed during low-volume periods, that are attributable to roadway congestion.

In 2018, over 87 million VMT and 2.8 million VHT occurred daily within the central Puget Sound region (King, Kitsap, Pierce, and Snohomish counties). This resulted in approximately 403,000

hours of delay for passenger cars and heavy trucks (PSRC 2022). VMT, by vehicle class, are shown in Table 3-1.

**Table 3-1 Existing Vehicle Miles Traveled by Vehicle Class**

| Vehicle Class            | VMT        | Percentage |
|--------------------------|------------|------------|
| Single-Occupancy Vehicle | 58,749,200 | 67%        |
| Carpool/Taxi             | 22,650,900 | 26%        |
| Truck                    | 6,185,900  | 7%         |
| Bus                      | 181,900    | 0.2%       |
| Total                    | 87,767,900 | 100%       |

SOURCE: PSRC (2018).

Mode share is the percentage of trips by a particular mode (e.g., single-occupancy vehicles, high-occupancy vehicles with two or more persons, and transit [bus and rail]). Approximately 12 million total daily trips occur in the Puget Sound region as of 2018, with single-occupancy vehicles and freight making up about half of the travel in the region. Transit, discussed in more detail in Section 3.2, comprises about 6% of all trips in the region (PSRC 2022).

Table 3-2 shows the existing daily mode share by person trips for the Puget Sound region.

**Table 3-2 Existing Daily Mode Share (by Person Trips) for the Puget Sound Region**

| Mode                      | Mode Share (Person Trips) |
|---------------------------|---------------------------|
| Single-Occupancy Vehicles | 68%                       |
| High-Occupancy Vehicles   | 15%                       |
| Walk/Bicycle              | 11%                       |
| Transit                   | 6%                        |
| Total                     | 100%                      |

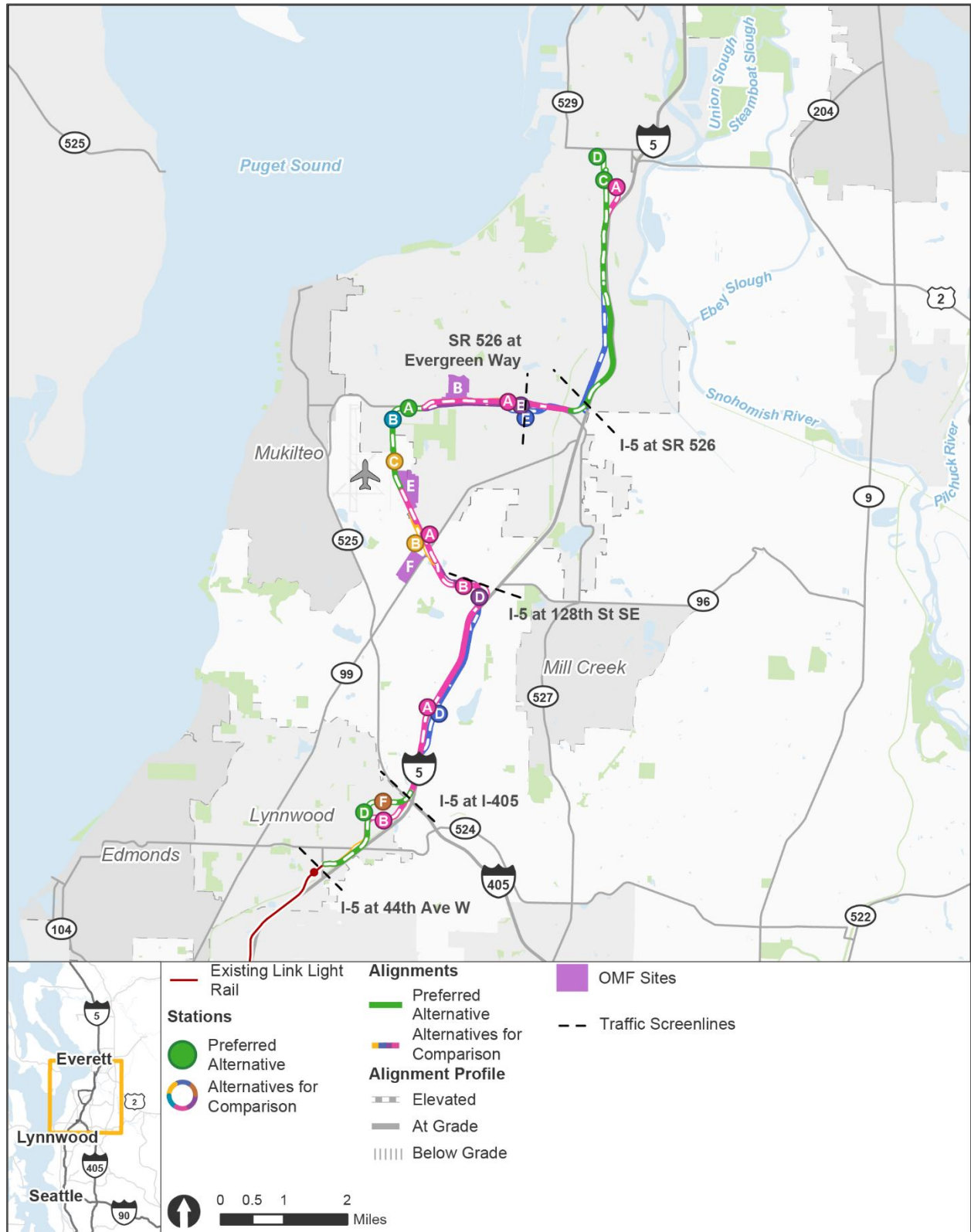
SOURCE: PSRC (2022).

### 3.1.2 I-5 and SR 526 Traffic Within the EVLE Corridor

Vehicle volume is the total number of vehicles passing through a location in a given length of time. The existing PM peak hour and daily traffic volumes for five screenline locations within the study area were collected. Screenlines are imaginary lines drawn across one or more roadways to compare aggregate changes in traffic conditions. The locations of the screenlines are shown in Figure 3-1. Table 3-3 and Table 3-4 show the PM peak hour, when traffic counts are typically highest, and weekday daily traffic volumes on I-5 and SR 526 at different points along the corridor.



Figure 3-1 Screenline Locations





**Table 3-3 Existing PM Peak Hour Volumes**

| Screenline              | Vehicles |
|-------------------------|----------|
| I-5 at 44th Ave W       | 12,874   |
| I-5 at I-405            | 11,585   |
| I-5 at 128th Street SE  | 11,350   |
| I-5 at SR 526           | 12,917   |
| SR 526 at Evergreen Way | 5,000    |

SOURCE: PSRC (2018).

**Table 3-4 Existing Weekday Daily Volumes**

| Screenline              | Vehicles |
|-------------------------|----------|
| I-5 at 44th Ave W       | 172,127  |
| I-5 at I-405            | 156,608  |
| I-5 at 128th Street SE  | 147,112  |
| I-5 at SR 526           | 160,669  |
| SR 526 at Evergreen Way | 63,818   |

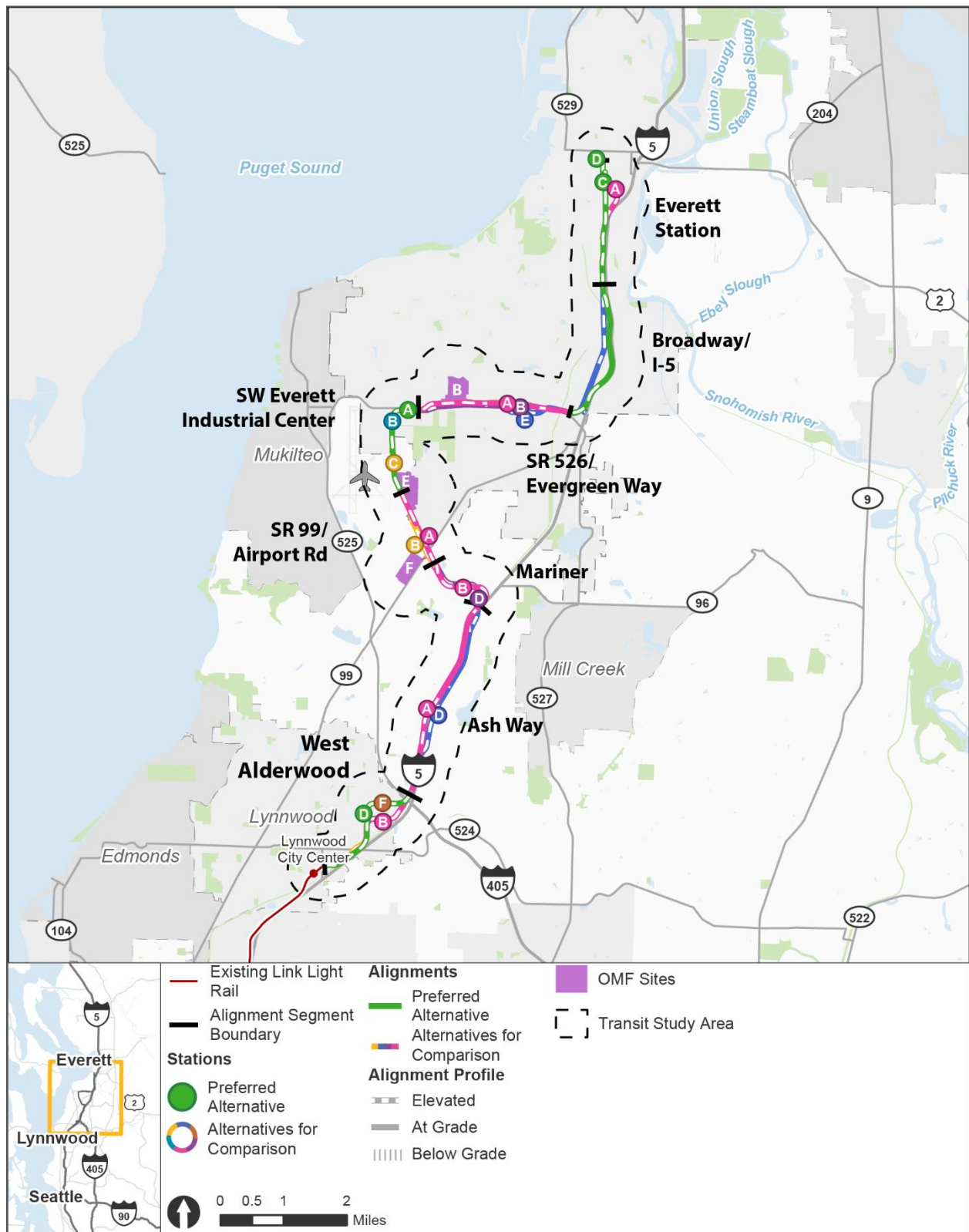
SOURCE: PSRC (2018).

## 3.2 Transit

This section reviews existing transit service and circulation, regional and local bus transit, ridership, station area mode of access, and transit level of service (LOS).

The study area for transit includes the area within 0.5 miles of the Build Alternatives (Figure 3-2). This section describes existing transit service within the study area and characteristics of the regional transit system for context.

Figure 3-2 Transit Study Area



### 3.2.1 Regional Transit Ridership

In addition to the vehicle trips discussed in Section 3.1 there are approximately 345,000 daily boardings to Sounder, Link light rail, or bus transit within the Sound Transit district, which includes parts of King, Pierce, and Snohomish counties (see Table 3-5 and Figure 3-3). The region is served by bus service from Pierce Transit, King County Metro, Community Transit, and Everett Transit in addition to Sound Transit bus, light rail, and commuter rail. An average of 68,676 people board Link light rail at locations south of this project's transit study area.

**Table 3-5 Regional Transit System Ridership**

| Measure                                      | Existing Ridership |
|----------------------------------------------|--------------------|
| Daily Systemwide Sounder Boardings           | 4,468              |
| Daily Systemwide Link Boardings              | 68,676             |
| Daily Systemwide Bus and Streetcar Boardings | 271,339            |
| Total Daily Transit Boardings                | 344,483            |

SOURCE: Federal Transit Administration (2022); Sound Transit (2022).



### 3.2.2 Transit Service and Facilities

Bus service in the corridor includes local routes that make frequent stops to serve shorter trips and express routes that make fewer stops and connect farther destinations. Everett Transit and Community Transit buses are the primary local bus service providers within the study area. Everett Transit provides local service within the city of Everett. Community Transit provides all-day local service throughout the corridor, including the city of Everett. Sound Transit regional express bus service and commuter rail (Sonder) serve the study area, making longer trips to connect regional centers, and Skagit Transit and Island Transit also provide regional connections.

In addition to local trips, Community Transit provides all-day and peak express service from the corridor to Seattle and Bellevue, and they operate two bus rapid transit lines for regional service, branded as Swift. The Swift Blue Line provides service between north Seattle and downtown Everett via SR 99/Evergreen Way, and the Swift Green Line runs from Canyon Park to Seaway Transit Center.

Together, the five transit agencies operate 51 routes in the study area as of 2023; 25 of these have a substantial portion of their route within the study area and were identified as key routes serving the corridor. The characteristics of these 25 are shown in Table 3-6.

Sound Transit's Sounder N Line also serves Everett Station with four trips to Seattle's King Street Station in the morning and four trips north to Everett Station in the evening. The Sounder N Line does not follow the corridor but instead uses the Burlington Northern Santa Fe (BNSF) mainline track along the coast.

**Table 3-6 EVLE Existing Key Bus Transit Routes**

| Route | Agency            | Service Period | Service Type | Average PM Peak Period Headway (Minutes) | Service Area                                              |
|-------|-------------------|----------------|--------------|------------------------------------------|-----------------------------------------------------------|
| 2     | Everett Transit   | All-Day        | Local        | 38                                       | Mariner Park-and-Ride to Everett Mall Station             |
| 3     | Everett Transit   | All-Day        | Local        | 46                                       | Seaway Transit Center to Everett Station                  |
| 7     | Everett Transit   | All-Day        | Frequent     | 15                                       | Everett Mall Station to College Station                   |
| 8     | Everett Transit   | All-Day        | Local        | 60                                       | Airport Rd to Everett Station                             |
| 12    | Everett Transit   | All-Day        | Local        | 30                                       | Everett Mall Station to Seaway Transit Center             |
| 29    | Everett Transit   | All-Day        | Local        | 30                                       | Everett Mall Station to College Station                   |
| 101   | Community Transit | All-Day        | Local        | 30                                       | Mariner Park-and-Ride to Aurora Village Transit Center    |
| 109   | Community Transit | All-Day        | Local        | 48                                       | Ash Way Park-and-Ride to Lake Stevens Transit Center      |
| 112   | Community Transit | All-Day        | Local        | 60                                       | Mountlake Terrace Transit Center to Ash Way Park-and-Ride |

| Route      | Agency            | Service Period | Service Type | Average PM Peak Period Headway (Minutes) | Service Area                                             |
|------------|-------------------|----------------|--------------|------------------------------------------|----------------------------------------------------------|
| 115        | Community Transit | All-Day        | Local        | 40                                       | McCollum Park-and-Ride to Aurora Village Transit Center  |
| 116        | Community Transit | All-Day        | Local        | 41                                       | Silver Firs to Edmonds Station                           |
| 196        | Community Transit | All-Day        | Local        | 30                                       | Ash Way Park-and-Ride to Edmonds Station                 |
| 201        | Community Transit | All-Day        | Local        | 41                                       | Lynnwood Transit Center to Smokey Point Transit Center   |
| 202        | Community Transit | All-Day        | Local        | 42                                       | Lynnwood Transit Center to Smokey Point Transit Center   |
| 227        | Community Transit | Peak           | Express      | 60                                       | Arlington to Seaway Transit Center                       |
| 247        | Community Transit | Peak           | Express      | 60                                       | Stanwood Downtown Park-and-Ride to Seaway Transit Center |
| 410        | Community Transit | Peak           | Express      | 30                                       | Mariner Park-and-Ride to Downtown Seattle                |
| 510        | Sound Transit     | Peak           | Express      | 17                                       | Everett Station to Downtown Seattle                      |
| 512        | Sound Transit     | All-Day        | Express      | 30                                       | Everett Station to Northgate Station                     |
| 513        | Sound Transit     | Peak           | Express      | 30                                       | Seaway Transit Center to Northgate Station               |
| 532        | Sound Transit     | Peak           | Express      | 24                                       | Everett Station to Bellevue                              |
| 810        | Community Transit | Peak           | Express      | --                                       | McCollum Park Park-and-Ride to Northgate Station         |
| 860        | Community Transit | Peak           | Express      | 27                                       | McCollum Park Park-and-Ride to Northgate Station         |
| Blue Line  | Community Transit | All-Day        | Swift        | 10                                       | Everett Transit to Aurora Village Transit Center         |
| Green Line | Community Transit | All-Day        | Swift        | 12                                       | Canyon Park Park-and-Ride to Seaway Transit Center       |

SOURCE: Community Transit (2023); Everett Transit (2023); Sound Transit (2023).

Major transit facilities in the area include Ash Way Park-and-Ride, Mariner Park-and-Ride, Seaway Transit Center, and Everett Station. Ash Way Park-and-Ride and Everett Station each have over 1,000 parking spaces, while Mariner Park-and-Ride has over 650. Seaway Transit Center does not include parking. In December 2023, Ash Way Park-and-Ride had a peak weekday utilization rate of 72%, and Mariner Park-and-Ride had a utilization rate of 15% according to data from Community Transit (2024). Everett Station had a peak weekday utilization rate of 45% in January 2024, per Everett Transit data provided to Sound Transit. Most of SR 99/Evergreen Way between Seattle and Everett includes business access transit lanes that allow for the Swift Blue Line to operate in exclusive lanes.



### 3.2.3 Transit Travel Time

This section describes 2023 travel times for bus routes that serve the same or similar trips as the EVLE Project. ST Express Route 512 connects Northgate Station in Seattle to Everett Station via I-5, and ST Express Route 513 connects Northgate Station to Seaway Transit Center near the Boeing Everett Production Facility via I-5 and SR 526. Everett Transit Route 3 connects Seaway Transit Center to Everett Station. Scheduled travel times on these routes are shown in Table 3-7.

**Table 3-7 Existing Bus Transit Travel Times**

| Trip                                                                                  | Direction | Existing Unconstrained Travel Time (minutes) |
|---------------------------------------------------------------------------------------|-----------|----------------------------------------------|
| Lynnwood Transit Center to Everett Station                                            | Outbound  | 42                                           |
| Everett Station to Lynnwood Transit Center                                            | Inbound   | 27                                           |
| Lynnwood Transit Center to Seaway Transit Center (Boeing Everett Production Facility) | Outbound  | 46                                           |
| Seaway Transit Center (Boeing Everett Production Facility) to Lynnwood Transit Center | Inbound   | 73                                           |
| Everett Station to Seaway Transit Center (Boeing Everett Production Facility)         | Outbound  | 22                                           |
| Seaway Transit Center (Boeing Everett Production Facility) to Everett Station         | Inbound   | 24                                           |

SOURCE: Community Transit (2023); Everett Transit (2023).

### 3.2.4 Transit Level of Service

The performance of existing bus transit service along the project corridor was evaluated using LOS measures for frequency, span of service, and reliability. These measures were adapted from the *Transit Capacity and Quality of Service Manual*, third edition (Transportation Research Board 2013).

Routes were analyzed at four screenline locations along the I-5 corridor: 44th Avenue W, I-405, 128th Street SW, and SR 526. These are the same I-5 screenlines used to measure regional traffic in Section 3.1.2.

#### 3.2.4.1 Frequency

Frequency LOS is a transit service rating based on how frequently a transit route stops at a given location (also known as headway). The better (shorter) the transit headway, the less time a rider has to wait between transit arrivals and, therefore, the better the frequency LOS. Transit routes that have headways of less than 10 minutes are rated LOS A, whereas headways longer than 60 minutes are rated LOS F.

Table 3-8 shows the 2023 existing headways during the PM peak period (3-6 PM), when headways are usually shortest, and corresponding frequency LOS for the bus routes that cross the screenlines.

**Table 3-8 Existing Bus Service Frequency (PM Peak)**

| Screenline Location    | Headway (minutes) | Level of Service |
|------------------------|-------------------|------------------|
| I-5 at 44th Ave W      | 30                | C                |
| I-5 at I-405           | 29                | C                |
| I-5 at 128th Street SW | 31                | D                |
| I-5 at SR 526          | 29                | C                |

SOURCE: Community Transit (2024).

### 3.2.4.2 Span

Span LOS is a transit service rating based on the number of hours per day a transit service operates. The longer that transit service is provided throughout the day, the more people and types of trips it can serve, and therefore, a longer span has a better LOS. LOS A reflects service with a span greater than 18 hours, and LOS D or worse indicates service with a span of 11 hours or less.

Table 3-9 shows the existing average span of service LOS for the bus routes that cross the screenline locations.

**Table 3-9 Existing Bus Span of Service**

| Screenline Location    | Average Span of Service (Hours) | Level of Service |
|------------------------|---------------------------------|------------------|
| I-5 at 44th Ave W      | 11:53                           | C                |
| I-5 at I-405           | 12:36                           | C                |
| I-5 at 128th Street SW | 13:29                           | C                |
| I-5 at SR 526          | 11:50                           | D                |

SOURCE: Community Transit (2024).

### 3.2.4.3 Reliability

Reliability LOS is a transit service rating based on the consistency of a transit line's arrival time. Reliable service is preferred because it provides travel time certainty, minimizes passenger waiting, and maximizes the efficiency of the system by evenly loading transit vehicles. Reliability is rated on a scale from A to F, with higher letter grades indicating better on-time performance. Ratings of LOS E or F indicate unreliable service, in which even spacing between buses cannot be maintained. This causes excessive wait times and crowded buses, making the service less appealing for users.

Table 3-10 shows the existing average PM peak (3-6 PM) and AM peak (6-9 AM) period reliability LOS for the bus routes that cross the screenline locations. The AM and PM peak periods are usually when reliability is worst due to traffic congestion.



**Table 3-10 Existing Bus Service Reliability**

| Screenline Location    | Direction | PM Peak Period Level of Service | AM Peak Period Level of Service |
|------------------------|-----------|---------------------------------|---------------------------------|
| I-5 at 44th Ave W      | North     | C                               | C                               |
| I-5 at 44th Ave W      | South     | D                               | D                               |
| I-5 at I-405           | North     | C                               | C                               |
| I-5 at I-405           | South     | D                               | C                               |
| I-5 at 128th Street SW | North     | D                               | D                               |
| I-5 at 128th Street SW | South     | E                               | D                               |
| I-5 at SR 526          | North     | C                               | C                               |
| I-5 at SR 526          | South     | D                               | C                               |

SOURCE: Community Transit (2024).

### 3.3 Arterial and Local Street Operations

This section presents the existing operations of the arterials and local roadways in the study area, defined as 0.5 miles from the Build Alternatives, and the intersection LOS at specific intersections near the station and OMF alternatives.

#### 3.3.1 Arterials and Local Roadways

The Federal Highway Administration (FHWA) classifies roadways using the Highway Functional Classification system. The functional class of a roadway determines its design and whether it emphasizes ease of local access or faster travel between destinations. Principle arterials serve major centers of metropolitan areas with a high degree of mobility but still provide access to abutting land uses. Minor arterials provide service for trips of moderate length and serve areas that are smaller than those served by principal arterials.

##### 3.3.1.1 West Alderwood Segment

Arterial roadways in the West Alderwood Segment are shown in Figure 3-4. The road system in the segment includes a grid of arterial streets, broken up by the large Alderwood Mall (mall) property and limited access highways, including I-5, I-405, and SR 525. SR 524 is the principle east-west route on the segment and runs on 196th Street SW. 33rd Avenue W provides access to the mall while further west 36th Avenue W connects the mall area to northern Lynnwood. 188th Street SW is a short one block arterial that connects 36th and 33rd Avenues. Alderwood Mall Parkway provides north-south access on the east side of the mall, including south across I-5 to 196th Street SW and north across SR 525 to 164th Street SW.

Physical characteristics and average daily traffic (ADT) for arterials in the West Alderwood Segment study area are listed in Table 3-11.

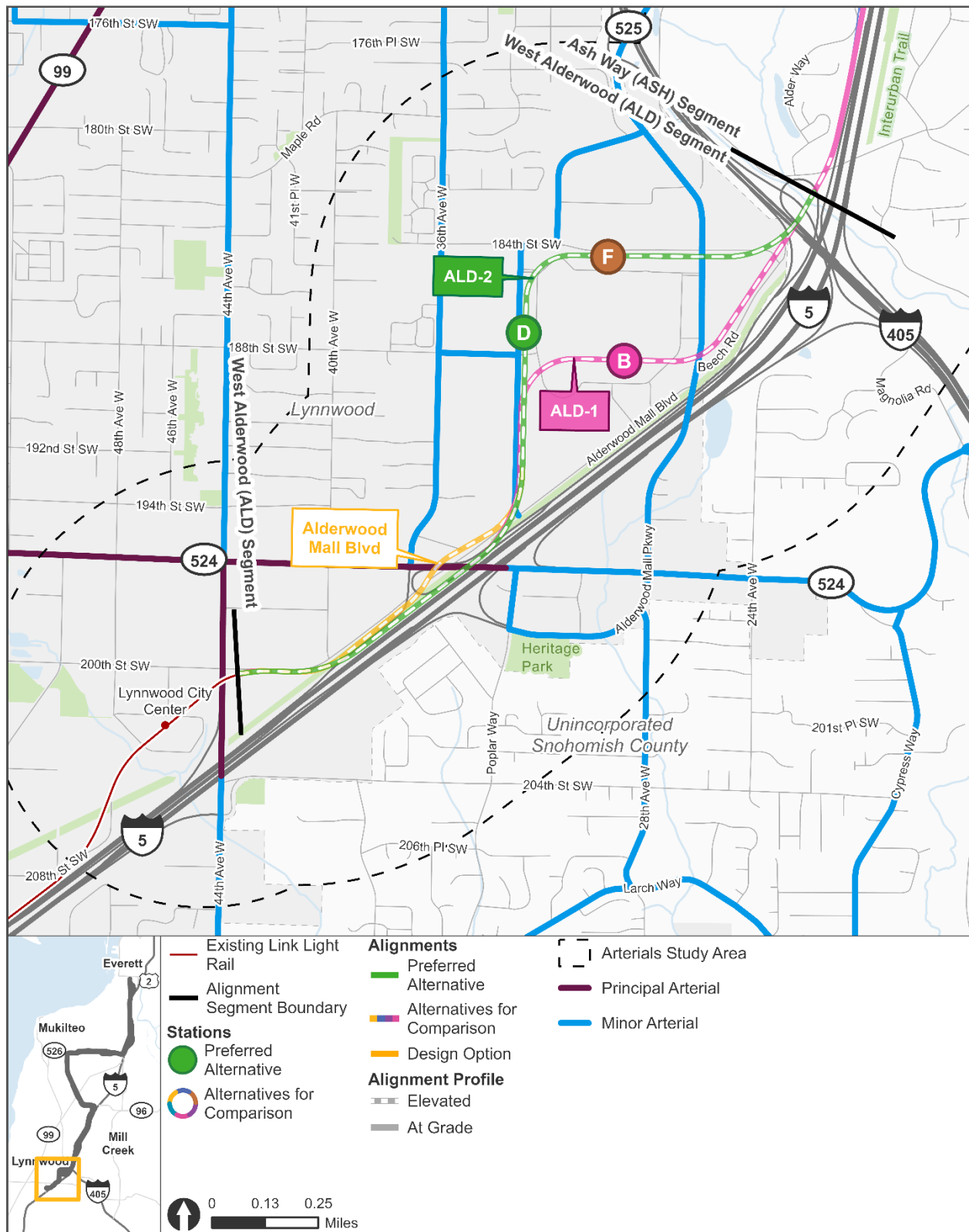
**Table 3-11 Existing Arterial Roadways – West Alderwood Segment**

| Roadway                | Arterial Classification <sup>a</sup> | Number of Lanes | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|------------------------|--------------------------------------|-----------------|------------------------------|------------------|---------------|----------|
| SR 524/196th Street SW | Principal                            | 4 to 6          | 35                           | 41,500           | No            | Yes      |
| 36th Avenue W          | Minor                                | 4               | 35                           | 15,700           | No            | Yes      |
| 33rd Avenue W          | Minor                                | 4               | 30                           | --               | No            | Yes      |
| 188th Street SW        | Minor                                | 5               | 30                           | 13,200           | No            | Yes      |
| Alderwood Mall Parkway | Minor                                | 4               | 35                           | 25,700           | No            | Yes      |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2018).

Figure 3-4 Existing Arterial Roadways – West Alderwood Segment



SOURCE: WSDOT (2023).

### 3.3.1.2 Ash Way Segment

Arterial roadways in the Ash Way Segment study area are shown in Figure 3-5 and Figure 3-6. The principal east-west arterial in the segment is 164th Street SW. It provides the only crossing of I-5 between 196th Street SW and 128th Street SW and connects northern Lynnwood and Mill Creek. East-west travel is limited by I-5 and natural landscape features like Swamp Creek and Martha Lake. Physical characteristics and ADT for arterials in the Ash Way Segment are listed in Table 3-12.

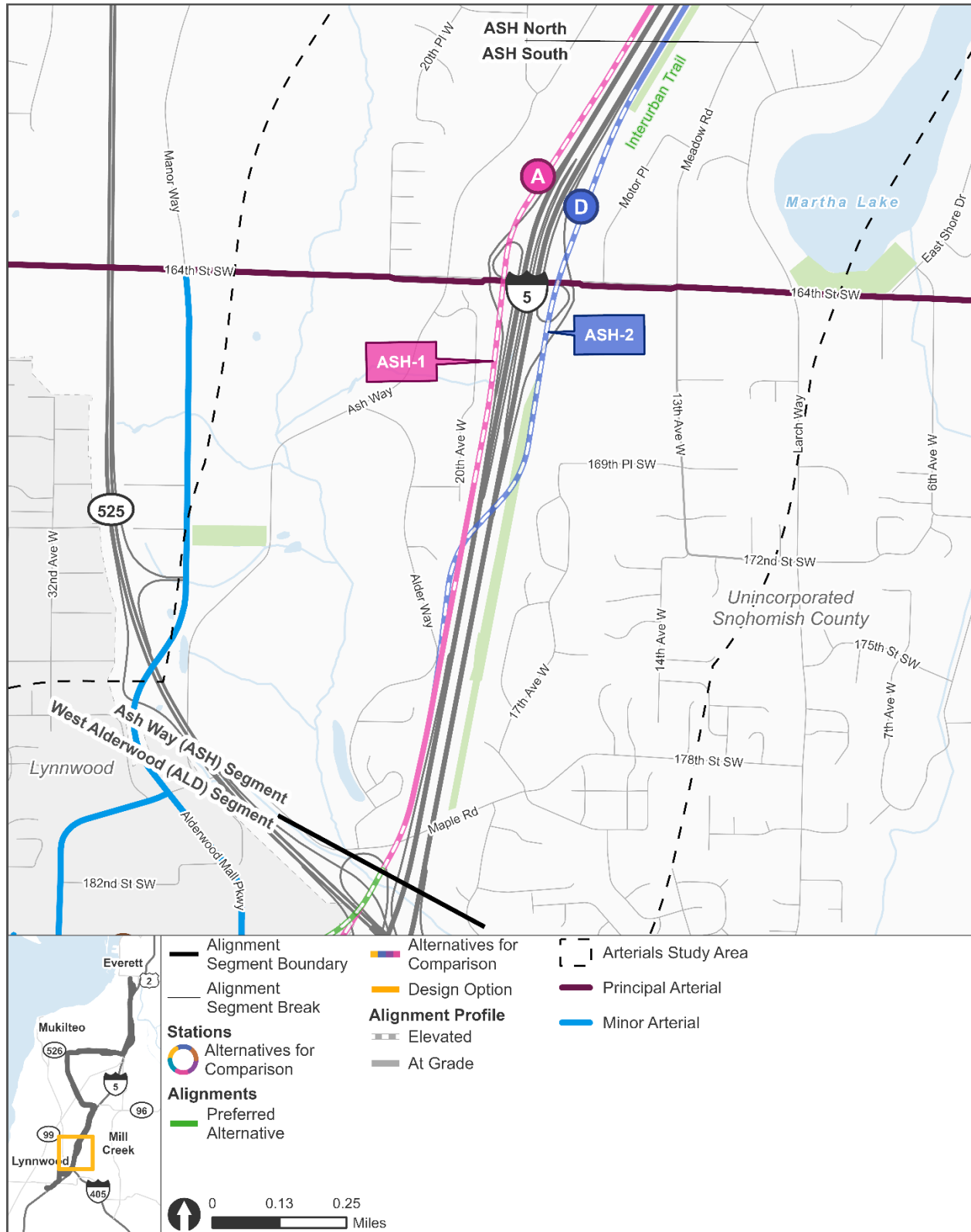
**Table 3-12 Existing Arterial Roadways – Ash Way Segment**

| Roadway         | Arterial Classification <sup>a</sup> | Number of Lanes | Speed Limit (miles per hour) | ADT | Bicycle Lanes | Sidewalk |
|-----------------|--------------------------------------|-----------------|------------------------------|-----|---------------|----------|
| 164th Street SW | Principal                            | 4 to 6          | 40                           | --  | Partial       | Yes      |

NOTE:

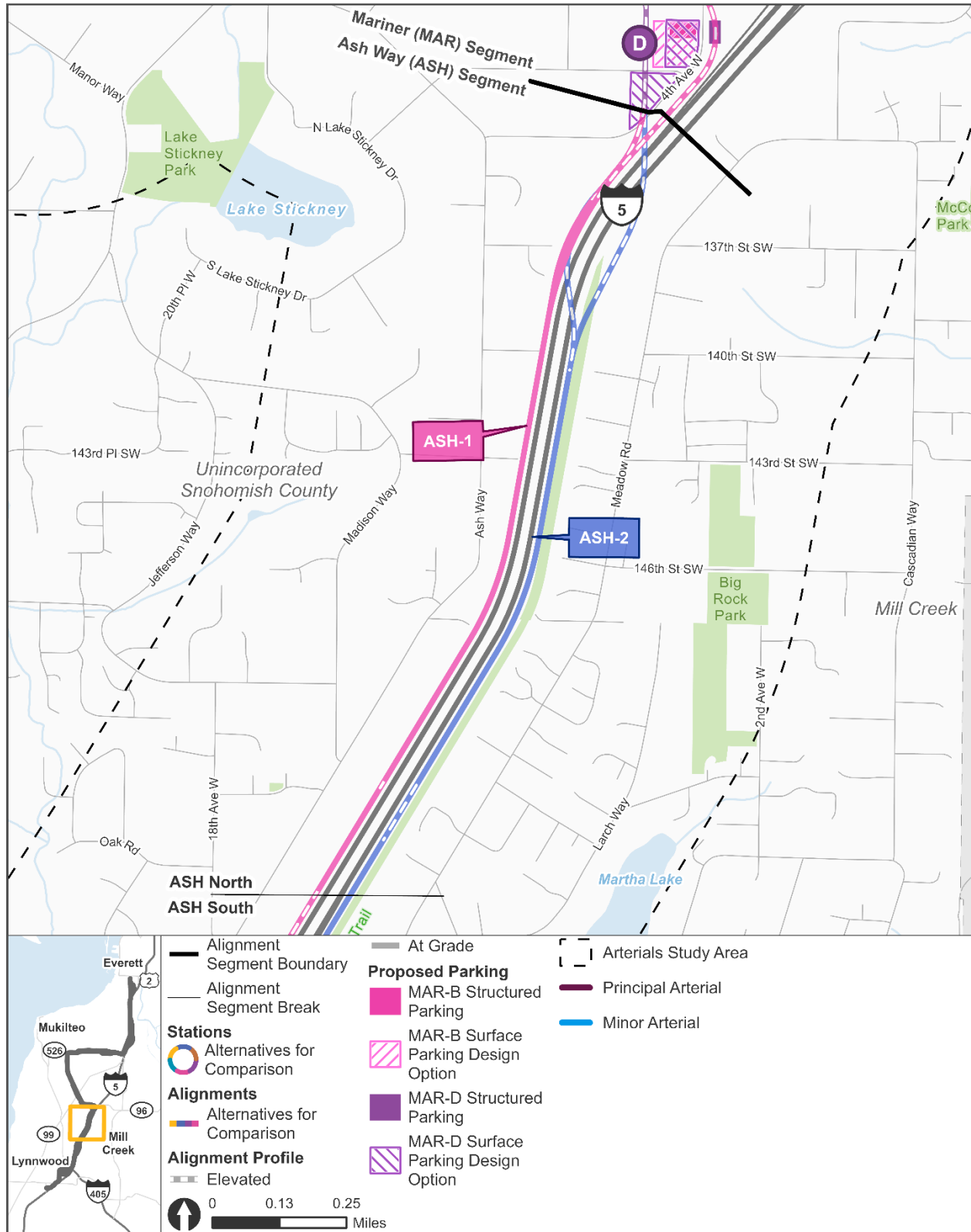
- a) The table only includes study area roads classified as minor arterial and above.

Figure 3-5 Existing Arterial Roadways – Ash Way Segment (South)



SOURCE: WSDOT (2023).

Figure 3-6 Existing Arterial Roadways – Ash Way Segment (North)



SOURCE: WSDOT (2023).

### 3.3.1.3 Mariner Segment

Arterial roadways in the Mariner Segment study area are shown in Figure 3-7. The principal east-west arterial in the segment is 128th Street SW/Airport Road, which connects north to the Boeing Everett Production Facility and Seattle Paine Field International Airport (Paine Field) and east across I-5 to Mill Creek and SR 9. 4th Avenue W runs north-south in the segment and continues to the Westmont area and Casino Road. Physical characteristics and ADT for arterials in the Mariner Segment are listed in Table 3-13.

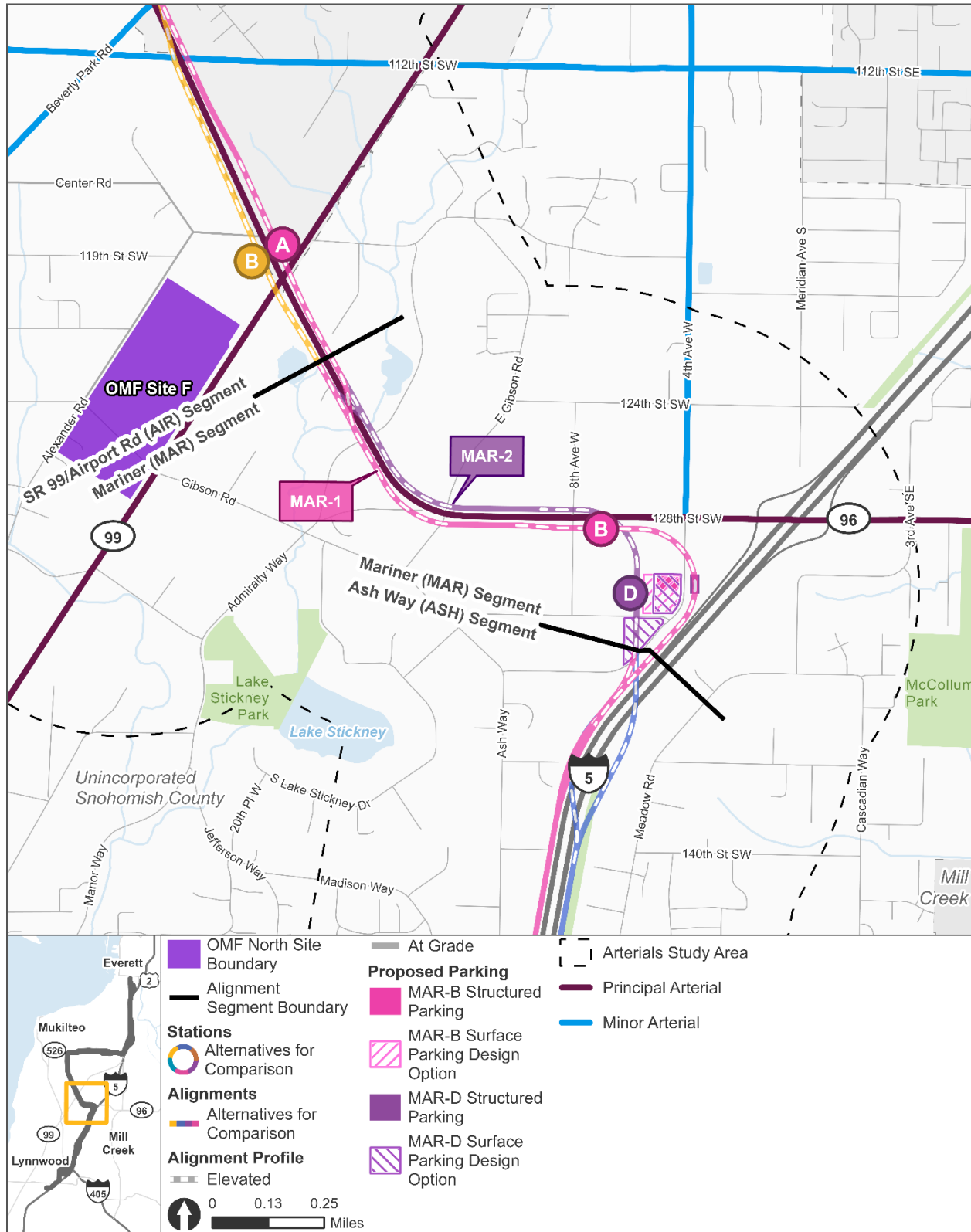
**Table 3-13 Existing Arterial Roadways – Mariner Segment**

| Roadway                      | Arterial Classification <sup>a</sup> | Number of Lanes     | Speed Limit (miles per hour) | ADT | Bicycle Lanes | Sidewalk |
|------------------------------|--------------------------------------|---------------------|------------------------------|-----|---------------|----------|
| 128th Street SW/Airport Road | Principal                            | 4 to 5 <sup>b</sup> | 35                           | --  | Partial       | Yes      |
| 4th Avenue SW                | Minor                                | 4                   | 35                           | --  | No            | Yes      |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) Includes two transit-only lanes, one each direction.

Figure 3-7 Existing Arterial Roadway Segments – Mariner Segment



SOURCE: WSDOT (2023).



### 3.3.1.4 SR 99/Airport Road Segment

Arterial roadways in the SR 99/Airport Road Segment study area and near OMF Site F are shown in Figure 3-8. The southern end of the segment is anchored by the intersection of SR 99, which connects to Seattle from the south and continues to downtown Everett as Evergreen Way in the north, and Airport Road, which connects to the Boeing Everett Production Facility and Paine Field to the north and continues as 128th Street SW to the east. 112th Street SW is a major east-west route which connects the area to the Silver Lake neighborhood on the east side of I-5. Beverly Park Road runs parallel to SR 99 in the segment, connecting SR 525 and Airport Road. Physical characteristics and ADT for arterials in the SR 99/Airport Road Segment and near OMF Site F are listed in Table 3-14.

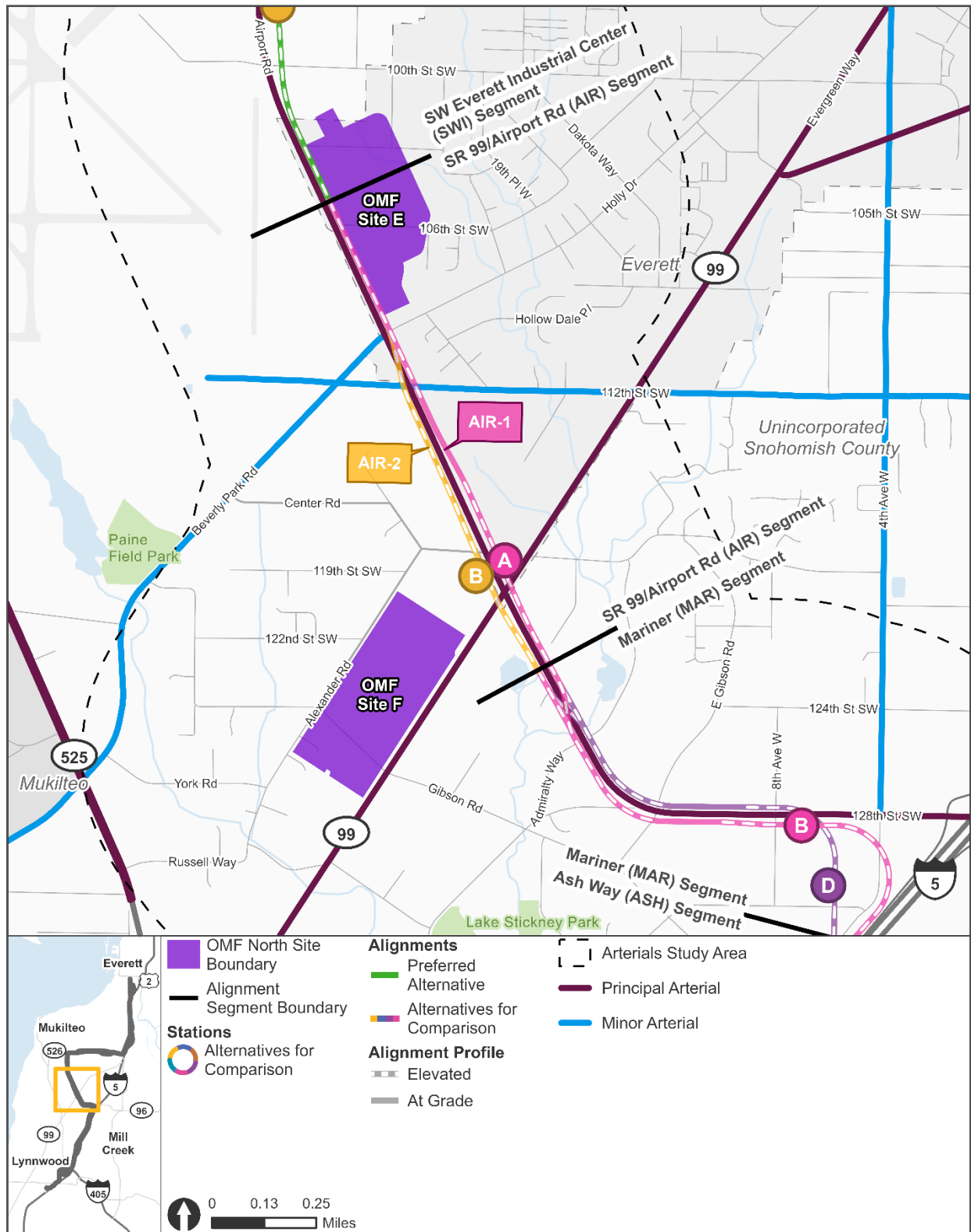
**Table 3-14 Existing Arterial Roadway Segments – SR99/Airport Road Segment and OMF Site F**

| Roadway              | Arterial Classification <sup>a</sup> | Number of Lanes     | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|----------------------|--------------------------------------|---------------------|------------------------------|------------------|---------------|----------|
| Airport Road         | Principal                            | 4 to 6 <sup>c</sup> | 45                           | 19,700           | Yes           | Yes      |
| SR 99/ Evergreen Way | Principal                            | 4 to 6 <sup>d</sup> | 40                           | 37,000           | No            | Yes      |
| 112 Street SW        | Minor                                | 3 to 4              | 35                           | 13,700           | Partial       | Yes      |
| Beverly Park Road    | Minor                                | 2 to 4              | 35                           | 5,600            | Yes           | Yes      |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2021).
- c) Includes two transit-only lanes, one in each direction.
- d) Includes transit-only lanes in certain portions.

**Figure 3-8 Existing Arterial Roadway Segments – SR 99/Airport Road Segment and OMF Site F**



SOURCE: WSDOT (2023).

### 3.3.1.5 SW Everett Industrial Center Segment

Arterial roadways in the SW Everett Industrial Center Segment study area and near OMF Site E are shown in Figure 3-9. The study area for the SW Everett Industrial Center Segment and OMF Site E comprises mostly of large properties such as the Boeing Everett Production Facility and Paine Field, and there are few local street connections through the area. Airport Road provides the main access to the area from the south, connecting to SR 99. W Casino Road connects the area to the Westmont neighborhood to the east and Evergreen Way. Physical characteristics and ADT for arterials in the SW Everett Industrial Center Segment and near OMF Site E are listed in Table 3-15.

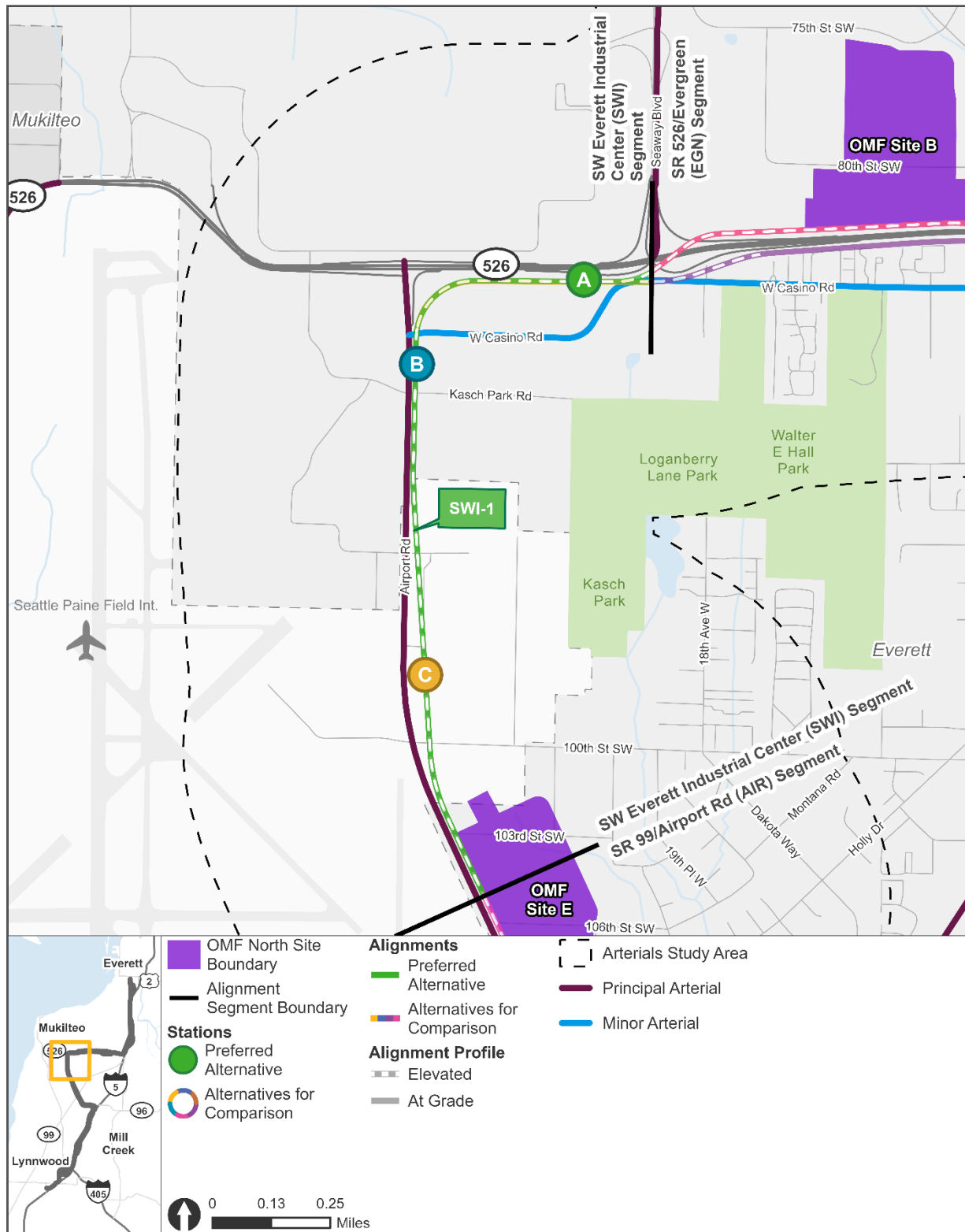
**Table 3-15 Existing Arterial Roadway Segments – SW Everett Industrial Center Segment and OMF Site E**

| Roadway       | Arterial Classification <sup>a</sup> | Number of Lanes     | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|---------------|--------------------------------------|---------------------|------------------------------|------------------|---------------|----------|
| Airport Road  | Principal                            | 4 to 6 <sup>c</sup> | 45                           | 23,900           | Partial       | Partial  |
| W Casino Road | Minor                                | 2                   | 35                           | 17,200           | Yes           | Yes      |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2021).
- c) Includes two transit-only lanes, one each direction.

**Figure 3-9 Existing Arterial Roadway Segments – SW Everett Industrial Center Segment and OMF Site E**



SOURCE: WSDOT (2023).

### 3.3.1.6 SR 526/Evergreen Segment

Arterial roadways in the SR 526/Evergreen Segment study area and near OMF Site B are shown in Figure 3-10 and Figure 3-11. Casino Road runs east-west in the southern half of the SR 526/Evergreen Way Segment connecting to Airport Road in the west and crossing under SR 526 in the east to connect to the Pinehurst-Beverly Park neighborhood. Many of the residential developments in the segment are only accessible from Casino Road as there are few connecting roads in the south. Evergreen Way is the main north-south corridor, continuing from SR 99 and connecting to downtown Everett in the north. 5th Avenue W runs south from W Casino Road, turns into 4th Avenue W, and eventually connects to the Mariner neighborhood. 7th Avenue SE runs north-south connecting the Cascade View neighborhood to Casino Road and the Everett Mall area. Physical characteristics and ADT for arterials in the SR 526/Evergreen segment and near OMF Site B are listed in Table 3-16.

**Table 3-16 Existing Arterial Roadway Segments – SR 526/Evergreen Segment and OMF Site B**

| Roadway                      | Arterial Classification <sup>a</sup> | Number of Lanes | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|------------------------------|--------------------------------------|-----------------|------------------------------|------------------|---------------|----------|
| Seaway Boulevard             | Principal                            | 4 to 8          | 40                           | 24,600           | No            | No       |
| Evergreen Way                | Principal                            | 6               | 35                           | 36,300           | No            | Yes      |
| W Casino Road/ E Casino Road | Minor                                | 2 to 4          | 30 to 35                     | 18,900           | Partial       | Yes      |
| 5th Avenue W                 | Minor                                | 3               | 25                           | 12,400           | Yes           | Yes      |
| 7th Avenue SE                | Minor                                | 2               | 25                           | 12,100           | Yes           | Yes      |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2021).

**Figure 3-10 Existing Arterial Roadway Segments – SR 526/Evergreen Segment (West) and OMF Site B**



SOURCE: WSDOT (2023).

**Figure 3-11 Existing Arterial Roadway Segments – SR 526/Evergreen Segment (East)**



SOURCE: WSDOT (2023).

### 3.3.1.7 Broadway/I-5 Segment

Arterial roadways in the Broadway/I-5 Segment study area are shown in Figure 3-12 and Figure 3-13. Broadway runs north-south in the segment. From the south it connects from SR 99 near Everett Mall and north into downtown Everett. Beverly Boulevard runs north-south parallel to Broadway; it connects the Pinehurst-Beverly Park neighborhood to downtown Everett, turning into Colby Avenue north of Madison Street. Madison Street runs east-west, connecting Broadway to Evergreen Way. 52nd Street connects east-west from Evergreen Way to the Lowell neighborhood with a crossing under I-5. Larimer Road comes up north from SR 9 south of the city of Snohomish running on the east side of I-5. It turns into S 2nd Avenue in the Lowell neighborhood. Physical characteristics and ADT for arterials in the Broadway/I-5 Segment are listed in Table 3-19.

**Table 3-17 Existing Arterial Roadway Segments – Broadway/I-5 Segment**

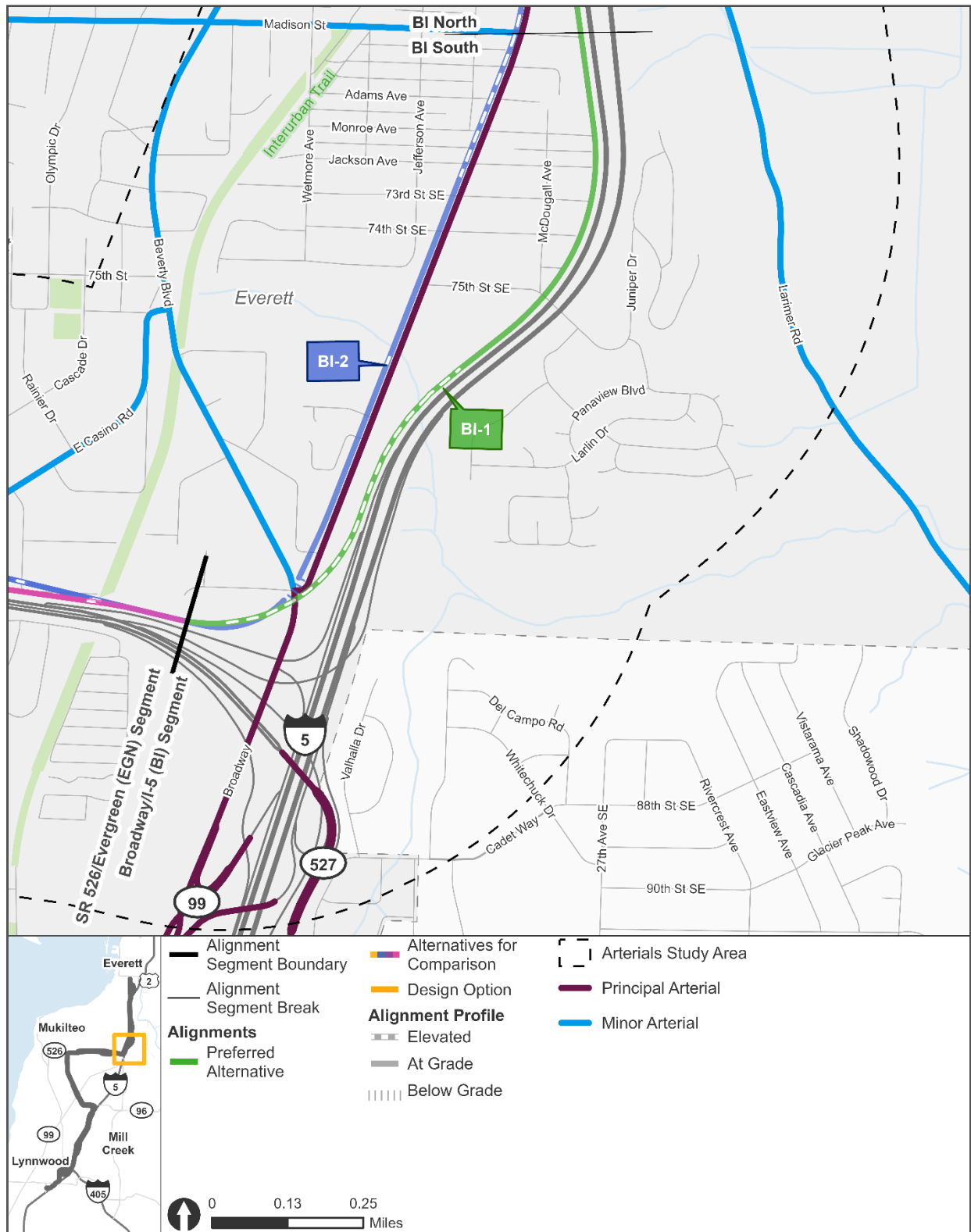
| Roadway           | Arterial Classification <sup>a</sup> | Number of Lanes | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|-------------------|--------------------------------------|-----------------|------------------------------|------------------|---------------|----------|
| Broadway          | Principal                            | 2               | 35                           | 12,200           | No            | No       |
| Beverly Boulevard | Minor                                | 3               | 30                           | 11,900           | No            | Yes      |
| Colby Avenue      | Minor                                | 2               | 30                           | 8,400            | No            | Yes      |
| Madison Street    | Minor                                | 2               | 30                           | 4,100            | Yes           | Yes      |
| 52nd Street       | Minor                                | 2               | 25                           | 3,800            | No            | Yes      |
| Larimer Road      | Minor                                | 2               | 30                           | 2,800            | No            | No       |
| S 2nd Avenue      | Minor                                | 2               | 30                           | 2,800            | No            | No       |

NOTES:

- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2021).

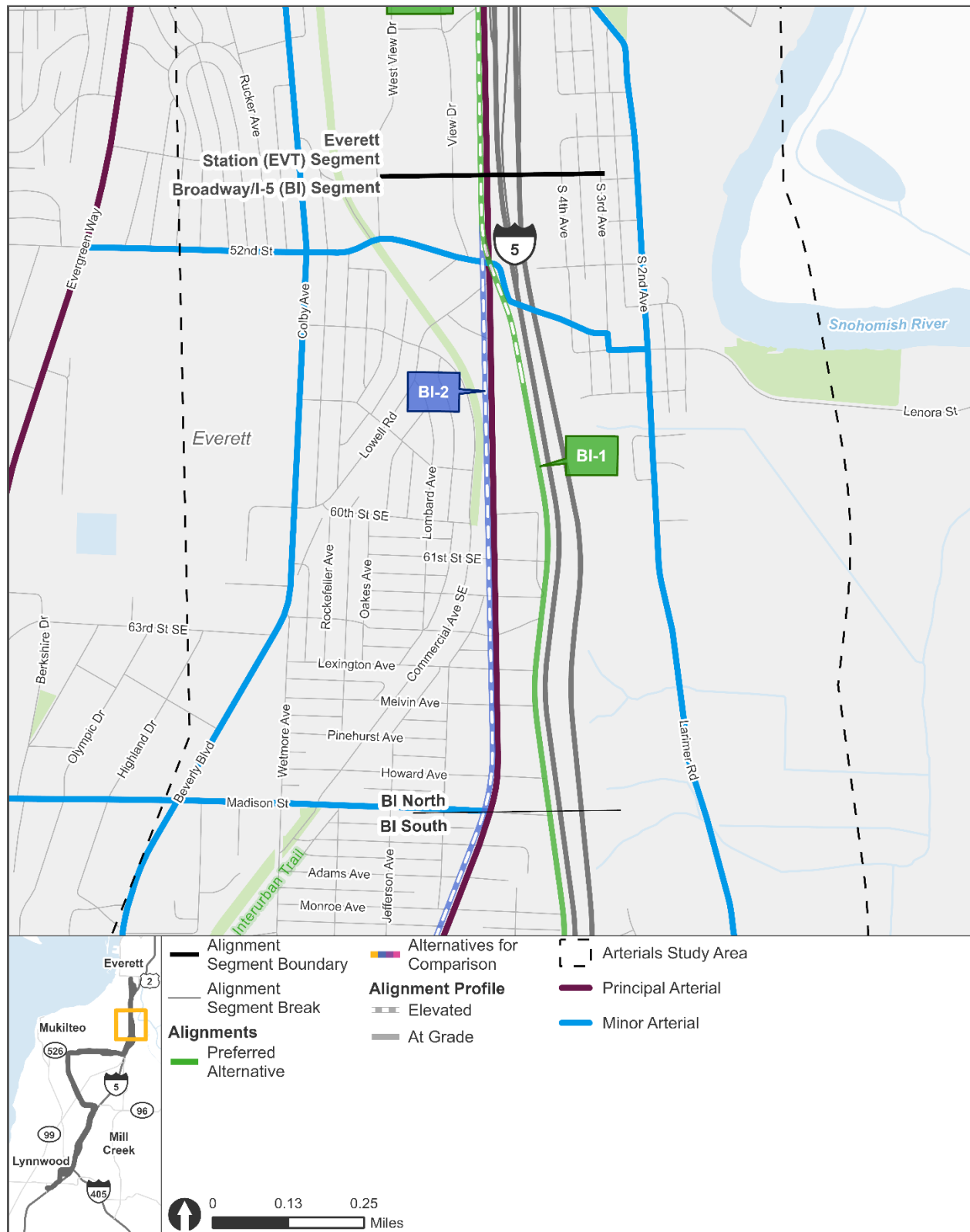


**Figure 3-12 Existing Arterial Roadway Segments – Broadway/I-5 Segment (South)**



SOURCE: WSDOT (2023).

Figure 3-13 Existing Arterial Roadway Segments – Broadway/I-5 Segment (North)



SOURCE: WSDOT (2023).

### 3.3.1.8 Everett Station Segment

Arterial roadways in the Everett Station Segment study area are shown in Figure 3-14 and Figure 3-15. Broadway is the principal north-south route in the Everett Station segment and serves as the southern entrance to downtown Everett. Broadway continues north through Everett, connecting to Everett Community College and eventually continuing across the Snohomish River as SR 529. 41st Street is a major arterial with heavy traffic along its route that connects Evergreen Way to Broadway, I-5, and the new Riverfront development. SR 529 runs as Everett Avenue east-west on the north end of the segment, connecting I-5 to the waterfront. East-west travel near the existing Everett Station facility is restricted by the BNSF mainline rail that runs through the segment. Pacific and Hewitt Avenues are the two major east-west streets that cross over the railroad, connecting downtown Everett to the Snohomish River waterfront. S 2nd/3rd Avenue connect the Lowell neighborhood to 41st Street. Colby Avenue provides another north-south connection on the western side of the segment. Physical characteristics and ADT for arterials in the Everett Station Segment are listed in Table 3-20.

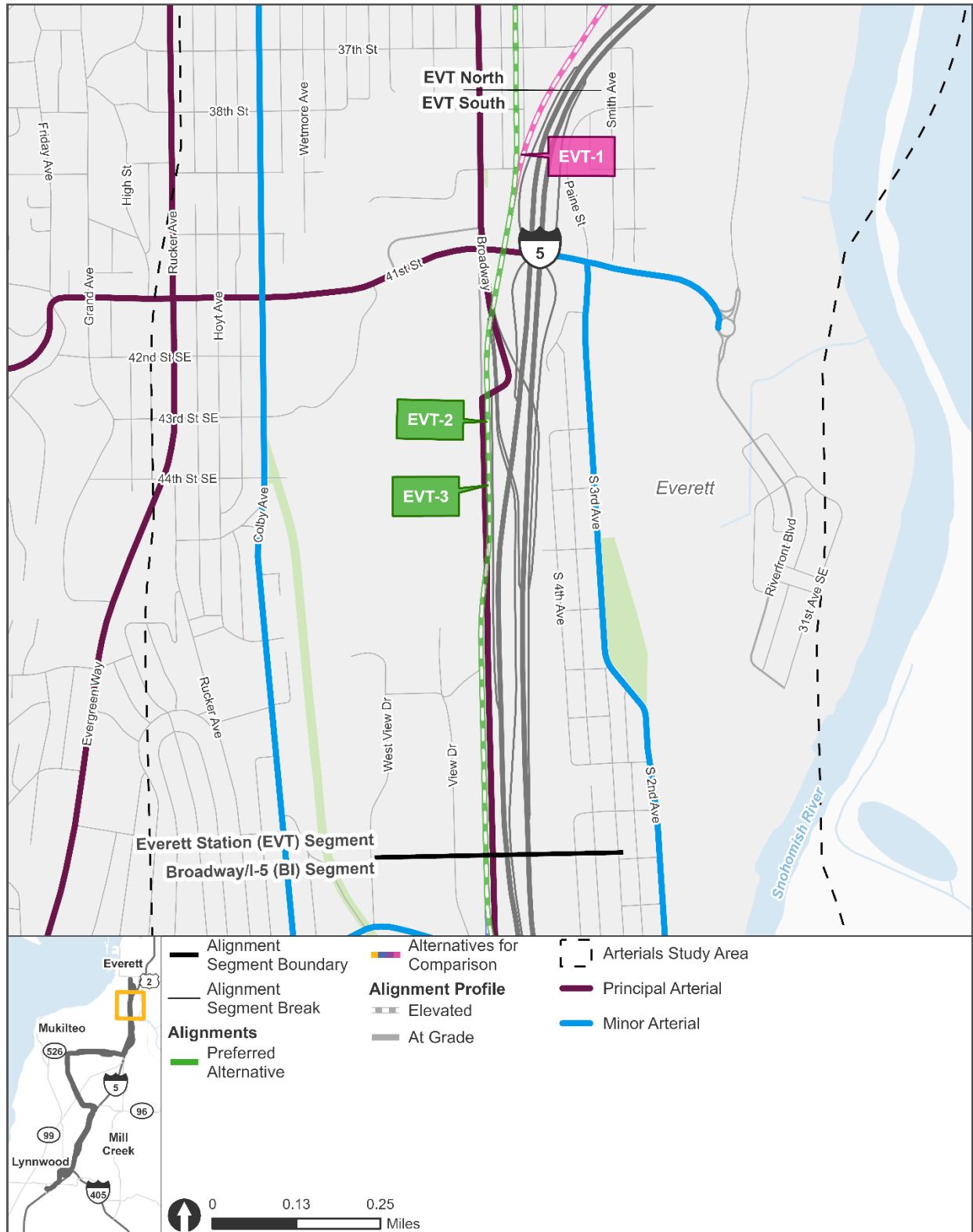
**Table 3-18 Existing Arterial Roadway Segments – Everett Station Segment**

| Roadway                   | Arterial Classification <sup>a</sup> | Number of Lanes | Speed Limit (miles per hour) | ADT <sup>b</sup> | Bicycle Lanes | Sidewalk |
|---------------------------|--------------------------------------|-----------------|------------------------------|------------------|---------------|----------|
| Broadway                  | Principal                            | 4               | 35                           | 25,600           | No            | Yes      |
| 41st Street               | Principal                            | 4-5             | 30                           | 31,600           | Partial       | Yes      |
| SR 529/<br>Everett Avenue | Principal                            | 5               | 30                           | 14,000           | No            | Yes      |
| Hewitt Avenue             | Principal                            | 4               | 30                           | 8,600            | No            | Yes      |
| Pacific Avenue            | Principal                            | 4               | 30                           | 8,200            | No            | Yes      |
| S 2nd Avenue              | Minor                                | 2               | 30                           | 2,800            | No            | Yes      |
| S 3rd Avenue              | Minor                                | 2               | 30                           | 2,800            | No            | Yes      |
| Colby Avenue              | Minor                                | 2               | 30                           | 4,900            | No            | Yes      |

NOTES:

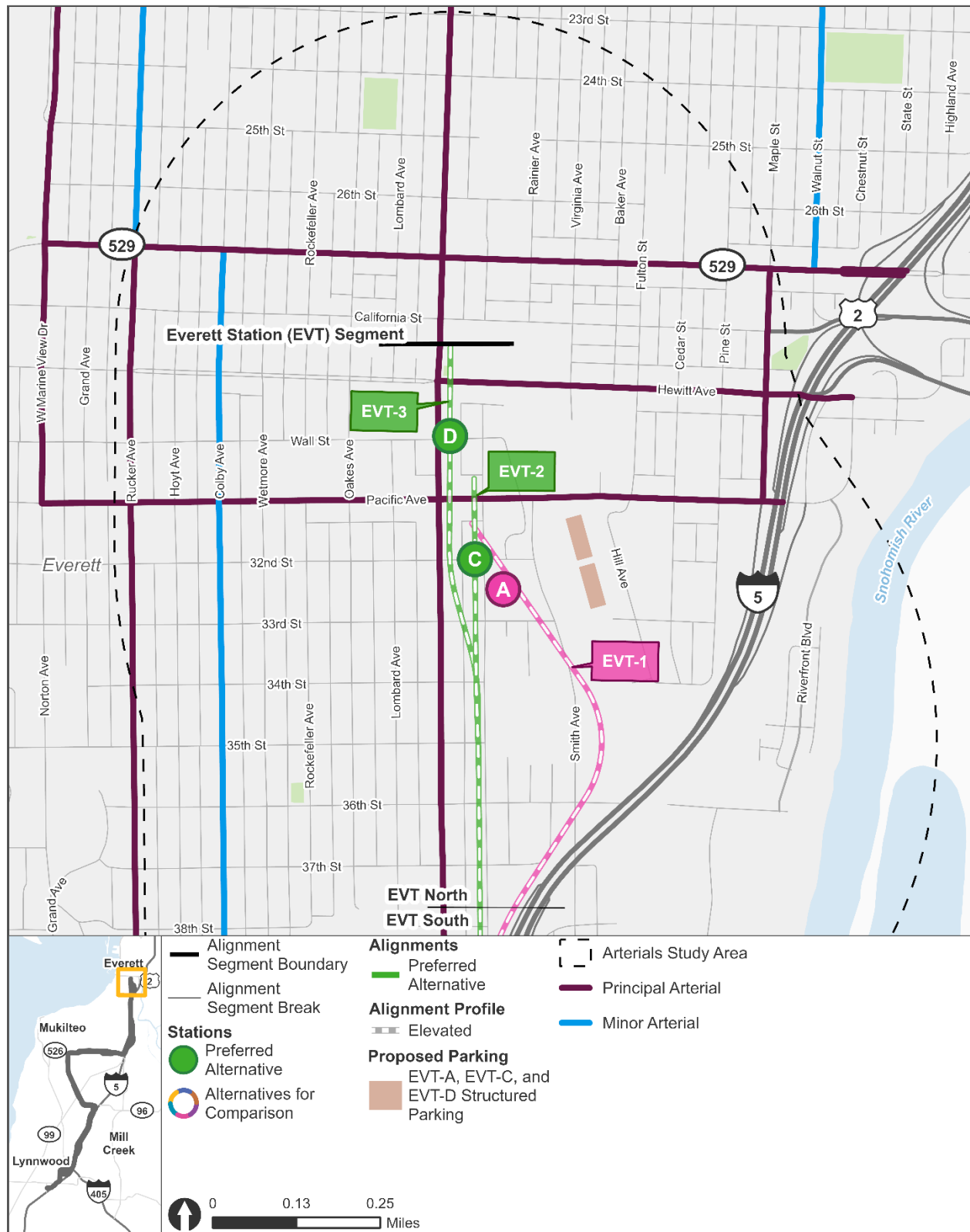
- a) The table only includes study area roads classified as minor arterial and above.
- b) ADT based on latest available traffic count information (2021).

Figure 3-14 Existing Local Roadway Segments – Everett Station Segment (South)



SOURCE: WSDOT (2023).

Figure 3-15 Existing Local Roadway Segments – Everett Station Segment (North)



SOURCE: WSDOT (2023).

### 3.3.2 Intersection Operations

Key intersections adjacent to potential station areas were evaluated during peak hours, when traffic is typically heaviest, to better understand existing traffic operations. Intersection performance is measured using LOS which categorizes delay into six letter grades, A to F. LOS A represents free flow of traffic and LOS F represents a road with slow speeds and long delays.

Models were developed and analyzed in Synchro and SimTraffic (Version 11) software, following the protocols documented in the Transportation Technical Analysis Methodology (included in Attachment A), to determine the existing 2023 operations of each study intersection. To develop models and simulations for the existing conditions study, several types of data were needed, including signal timing reports provided by each jurisdiction and traffic volume data.

Traffic volume data was obtained by collecting turning movement counts at each of the study intersections. Most of the data was collected on Wednesday, October 18, 2023, during the AM peak period (6:00 AM – 9:00 AM) and the PM peak period (3:00 PM – 6:00 PM). Additional data was collected on Thursday, December 7, 2023, and Tuesday, January 9, 2024. Though not necessary for this analysis, at the request of the City of Lynnwood, Saturday data was also collected for the West Alderwood Segment to capture operations around the mall on weekends. Saturday data was collected on October 14, 2023 (11:00 AM – 2:00 PM). A common peak hour was determined for each station area. Table 3-21 summarizes the common AM and PM peak hours and Saturday peak hour for each station area.

**Table 3-19 Common AM and PM Peak Hours and Saturday Peak Hour**

| Station Area                                        | Common AM Peak Hour | Common PM Peak Hour | Saturday Peak Hour |
|-----------------------------------------------------|---------------------|---------------------|--------------------|
| West Alderwood Segment                              | 7:45 AM – 8:45 AM   | 5:00 PM – 6:00 PM   | 1:00 PM – 2:00 PM  |
| Ash Way Segment                                     | 7:15 AM – 8:15 AM   | 4:30 PM – 5:30 PM   | -                  |
| Mariner Segment                                     | 7:30 AM – 8:30 AM   | 4:15 PM – 5:15 PM   | -                  |
| SR 99/Airport Road Segment and OMF Site F           | 7:15 AM – 8:15 AM   | 3:30 PM - 4:30 PM   | -                  |
| SW Everett Industrial Center Segment and OMF Site E | 7:00 AM – 8:00 AM   | 3:30 PM – 4:30 PM   | -                  |
| SR 526/Evergreen Segment                            | 8:00 AM – 9:00 AM   | 3:00 PM – 4:00 PM   | -                  |
| Everett Station Segment                             | 7:30 AM – 8:30 AM   | 4:15 PM – 5:15 PM   | -                  |
| OMF Site B                                          | 7:30 AM – 8:30 AM   | 3:00 PM – 4:00 PM   | -                  |

Existing conditions Synchro network files were developed for the weekday AM and PM peak periods. These models were used as the base files for the existing conditions analysis.

The following roadway geometric characteristics were coded into Synchro:

- Number of lanes.
- Lane configurations (left, through, right, or shared use).
- Channelization lengths to the nearest 5-foot increment.
- Lane width.
- Link speeds.

The traffic count data was entered into Synchro for the common peak hour for each station area (shown in Table 3-19). Peak hour factors (per intersection), pedestrian and bicycle volumes (per conflicting movement), ideal saturation flow, and percent trucks (per approach) were also entered into Synchro for each peak period analyzed. Existing local signal controller settings, timing settings, and coordination settings were entered into the model from the existing signal timing sheets provided by the jurisdictions.

Synchro software was used to determine the peak hour LOS and delay for 2023 existing conditions at each study intersection. The Highway Capacity Manual (HCM) report from Synchro was used to summarize the LOS and delay using HCM 6th Edition (Transportation Research Board [TRB] 2022), unless it was unavailable for the configuration, in which case the HCM 2000 (TRB 2000) was used. The LOS at signalized and all-way stop-controlled (AWSC) intersections is defined in average intersection delay based on the delay for all entering vehicles. The LOS at two-way stop-controlled (TWSC) unsignalized intersections is also defined in terms of delay, but only for the worst operating movement (typically the minor street stop approach). SIDRA (Version 9) was used to evaluate the Ash Way at 18th Avenue W roundabout, since SIDRA is the industry standard software for roundabout analysis. Additional analysis using 10 SimTraffic runs was performed to analyze the 164th Street SW and 128th Street SW corridors due to the congestion and queues present at the closely spaced intersections where queue interactions with adjacent intersections occur. Results highlighted in gray did not meet agency LOS standard.



### 3.3.2.1 West Alderwood Segment

The existing intersection operations during the weekday AM and PM peak hours and the Saturday peak hours in the vicinity of the West Alderwood Segment are summarized in Table 3-20 and shown in Attachment D.

**Table 3-20 AM, PM, and Saturday Peak Intersection Level of Service – West Alderwood Segment**

| ID  | Intersection                                      | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 | Existing Saturday Peak |                 |
|-----|---------------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|------------------------|-----------------|
|     |                                                   |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) | LOS                    | Delay (sec/veh) |
| 100 | Mall access road at 29th Avenue W                 | TWSC                 | A                | 9.1             | B                | 11.9            | C                      | 15.2            |
| 101 | Mall access road at ALD-B Station Access          | TWSC                 | A                | 9.2             | B                | 10.7            | B                      | 11.8            |
| 102 | Mall access road at 28th Avenue W                 | AWSC                 | A                | 7.3             | A                | 8.9             | B                      | 12.5            |
| 103 | Alderwood Mall Boulevard at 28th Avenue W         | TWSC                 | B                | 12.7            | C                | 16.4            | D                      | 30.9            |
| 104 | 188th Street SW at 33rd Avenue                    | Signalized           | B                | 17.5            | C                | 22.1            | C                      | 24.8            |
| 105 | 33rd Avenue W at ALD-D Station Transit Access     | TWSC                 | B                | 13.9            | C                | 17.8            | E                      | 43.9            |
| 106 | Mall access road at 188th Street SW               | TWSC                 | A                | 9.4             | D                | 25.4            | F                      | 591.0           |
| 107 | 184th Street SW at mall access road               | Signalized           | B                | 14.4            | C                | 25.2            | C                      | 30.9            |
| 108 | 184th Street SW at 33rd Avenue W                  | Signalized           | B                | 12.3            | C                | 26.9            | D                      | 36.7            |
| 109 | 188th Street SW at 36th Avenue W                  | Signalized           | B                | 15.8            | C                | 23.7            | C                      | 30.3            |
| 110 | Alderwood Mall Boulevard at 33rd Avenue W         | Signalized           | A                | 8.6             | B                | 11.1            | B                      | 10.4            |
| 111 | 196th Street SE at Poplar Way Bridge <sup>a</sup> | Signalized           | A                | 5.6             | A                | 6.0             | -                      | -               |
| 112 | 184th Street SW at 33rd Avenue W/ Driveway        | Signalized           | B                | 10.3            | C                | 28.9            | B                      | 17.2            |

NOTE:

- a) Saturday data was not collected at this intersection since it is not in the immediate vicinity of the stations.



**Table 3-21 AM and PM Peak Intersection Level of Service – Ash Way Segment**

| ID               | Intersection                                              | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|------------------|-----------------------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|                  |                                                           |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 201              | Ash Way at 164th Street SW <sup>a</sup>                   | Signalized           | E                | 56.6            | F                | 99.6            |
| 202              | 164th Street SW at I-5 southbound (SB) Ramps <sup>a</sup> | Signalized           | C                | 28.8            | C                | 32.2            |
| 203              | 164th Street SW at I-5 northbound (NB) Ramps <sup>a</sup> | Signalized           | B                | 15.4            | F                | 104.5           |
| 204              | 164th Street SW at 14th Place W <sup>a</sup>              | Signalized           | A                | 9.6             | E                | 72.2            |
| 205              | 164th Street SW at 13th Avenue W/Meadow Road <sup>a</sup> | Signalized           | C                | 26.0            | F                | 100.6           |
| 206              | Ash Way at ASH-A Park-and-Ride Access                     | Signalized           | A                | 5.4             | B                | 12.1            |
| 207              | Ash Way at ASH-A Transit Access                           | TWSC                 | D                | 26.3            | F                | 53.8            |
| 208              | Meadow Road at ASH-D Transit Access                       | TWSC                 | B                | 11.2            | B                | 14.4            |
| 209              | Motor Place at Bridge over I-5                            | TWSC                 | A                | 8.6             | A                | 8.4             |
| 210 <sup>b</sup> | Meadow Road at 161st Street                               | TWSC                 | -                | -               | -                | -               |
| 211              | Ash Way at 18th Avenue W <sup>c</sup>                     | Roundabout           | A                | 6.1             | A                | 5.9             |
| 212              | 164th Street SW at Motor Place <sup>a</sup>               | TWSC                 | C                | 18.3            | D                | 34.4            |

NOTES:

- a) Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- b) Intersection ID 210 is a proposed intersection so there is no existing conditions data for this location.
- c) Evaluated with SIDRA.

### 3.3.2.3 Mariner Segment

The existing intersection operations during the AM and PM peak-hours in the vicinity of the Mariner Segment are summarized in Table 3-22 and shown in Attachment D.

**Table 3-22 AM and PM Peak Intersection Level of Service – Mariner Segment**

| ID <sup>a</sup> | Intersection                                 | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----------------|----------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|                 |                                              |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 301             | 128th Street SW at 8th Avenue W <sup>b</sup> | Signalized           | B                | 17.8            | C                | 23.7            |
| 302             | 128th Street SW at 5th Place <sup>b</sup>    | Signalized           | B                | 11.1            | B                | 18.5            |

| ID <sup>a</sup> | Intersection                                 | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----------------|----------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|                 |                                              |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 303             | 128th Street SW at 4th Avenue W <sup>b</sup> | Signalized           | D                | 51.7            | D                | 51.3            |
| 304             | 128th Street SW at I-5 SB Ramp <sup>b</sup>  | Signalized           | C                | 25.1            | C                | 30.0            |
| 305             | 128th Street SW at I-5 NB Ramp <sup>b</sup>  | Signalized           | C                | 34.7            | F                | 148.8           |
| 306             | 8th Avenue W at MAR-B Transit Access         | TWSC                 | A                | 9.3             | A                | 9.7             |
| 307             | 5th Place W at MAR-B Transit Access          | AWSC                 | A                | 7.1             | A                | 7.6             |
| 308             | 132nd Street SW at 4th Avenue W              | TWSC                 | B                | 12.0            | B                | 13.4            |
| 309             | 130th Street SW at 4th Avenue W              | Signalized           | A                | 6.6             | A                | 8.2             |
| 310             | 132nd Street SW at 8th Avenue W              | TWSC                 | A                | 9.6             | A                | 9.6             |
| 312             | 130th Street SW at Meridian Avenue           | TWSC                 | B                | 10.9            | B                | 12.4            |
| 313             | 8th Avenue W at 130th Street SW/Driveway     | TWSC                 | A                | 10.0            | B                | 12.1            |

## NOTES:

- Intersection ID 311 was removed from the analysis due to changes in proposed access points since the methodology was developed.
- Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.

### 3.3.2.4 SR 99/Airport Road Segment and OMF Site F

The existing intersection operations during the AM and PM peak hours in the vicinity of the SR 99/Airport Road Segment and OMF Site F are summarized in Table 3-23 and shown in Attachment D.

**Table 3-23 AM and PM Peak Intersection Level of Service – SR 99/Airport Road Segment and OMF Site F**

| ID  | Intersection                    | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----|---------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|     |                                 |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 401 | Airport Road at SR 99           | Signalized           | D                | 50.9            | E                | 63.7            |
| 402 | Airport Road at Center Road     | TWSC                 | C                | 15.1            | F                | 84.9            |
| 403 | SR 99 at Center Road            | TWSC                 | E                | 43.9            | F                | 285.2           |
| 404 | Airport Road at 112th Street SW | Signalized           | B                | 15.9            | C                | 34.0            |

| ID  | Intersection                       | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----|------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|     |                                    |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 405 | SR 99 at 112th Street SW           | Signalized           | C                | 25.3            | D                | 40.0            |
| 809 | SR 99/Evergreen Way at Gibson Road | Signalized           | D                | 50.5            | D                | 36.8            |

### 3.3.2.5 SW Everett Industrial Center Segment and OMF Site E

The existing intersection operations during the AM and PM peak hours in the vicinity of the SW Everett Industrial Center Segment and OMF Site E are summarized in Table 3-24 and shown in Attachment D.

**Table 3-24 AM and PM Peak Intersection Level of Service – SW Everett Industrial Center Segment and OMF Site E**

| ID  | Intersection                                          | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----|-------------------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|     |                                                       |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 501 | Airport Road at Kasch Park Road                       | Signalized           | B                | 18.7            | B                | 15.4            |
| 502 | Airport Road at Casino Road                           | Signalized           | B                | 19.6            | B                | 16.4            |
| 511 | Airport Road at Boeing Freeway (westbound [WB] ramps) | TWSC                 | B                | 14.8            | B                | 13.6            |
| 512 | Airport Road at Boeing Freeway (eastbound [EB] ramps) | TWSC                 | C                | 20.4            | C                | 22.6            |
| 506 | Casino Road at SWI-B Station Access                   | Signalized           | B                | 12.5            | B                | 12.0            |
| 507 | Kasch Park Road at SWI-B Station Access               | TWSC                 | B                | 10.1            | B                | 10.6            |
| 508 | Airport Road at 94th Street SW                        | AWSC                 | B                | 10.7            | A                | 6.9             |
| 509 | 94th Street SW at SWI-C Station Access                | Signalized           | A                | 9.7             | A                | 9.2             |
| 515 | Airport Road at SWI-C Station Access                  | Signalized           | A                | 7.2             | A                | 7.4             |
| 805 | Airport Road at 100th Street SW                       | Signalized           | B                | 15.8            | D                | 37.6            |
| 806 | Airport Road at 106th Street SW                       | Signalized           | B                | 11.5            | B                | 15.0            |
| 807 | Airport Road at Holly Road                            | Signalized           | C                | 31.6            | D                | 40.2            |

### 3.3.2.6 SR 526/Evergreen Way Segment

The existing intersection operations during the AM and PM peak hours in the vicinity of the SR 526/Evergreen Way Segment are summarized in Table 3-25 and shown in Attachment D.

**Table 3-25 AM and PM Peak Intersection Level of Service – SR 526/Evergreen Segment**

| ID  | Intersection                                               | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----|------------------------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|     |                                                            |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 601 | Evergreen Way at Casino Road                               | Signalized           | C                | 28.4            | D                | 36.9            |
| 602 | Evergreen Way at SR 526 EB Ramps                           | Signalized           | B                | 10.3            | C                | 23.7            |
| 603 | Evergreen Way at SR 526 WB Ramps                           | Signalized           | C                | 23.5            | D                | 42.2            |
| 604 | Evergreen Way at 79th Place                                | Signalized           | C                | 23.7            | D                | 35.8            |
| 605 | W Casino Road at EGN-B Station/EGN-D Station Access        | Signalized           | A                | 6.0             | A                | 9.6             |
| 606 | W Casino Road at EGN-C Station Access/EGN-E Station Access | TWSC                 | B                | 12.9            | B                | 13.7            |
| 607 | Beverly Lane and 79th Place                                | TWSC                 | B                | 10.6            | B                | 10.8            |
| 608 | W Casino Road at 5th Avenue W                              | Signalized           | C                | 26.9            | D                | 38.5            |
| 609 | Evergreen Way at Holly Drive                               | Signalized           | A                | 6.3             | A                | 9.8             |
| 610 | 7th Avenue SE at E Casino Road                             | Signalized           | C                | 28.0            | D                | 40.1            |
| 611 | 7th Avenue SE at 84th Street SE                            | Signalized           | B                | 14.1            | B                | 15.2            |

### 3.3.2.7 Broadway/I-5 Segment

Since there are no station alternatives in the Broadway/I-5 Segment, no intersections were studied for this analysis.

### 3.3.2.8 Everett Station Segment

The existing intersection operations during the AM and PM peak hours in the vicinity of the Everett Station Segment are summarized in Table 3-26 and shown in Attachment D.

**Table 3-26 AM and PM Peak Intersection Level of Service – Everett Station Segment**

| ID               | Intersection                            | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|------------------|-----------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|                  |                                         |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 701              | Broadway at Hewitt Avenue               | Signalized           | C                | 28.8            | C                | 34.4            |
| 702              | Broadway at Wall Street                 | Signalized           | A                | 4.4             | A                | 4.5             |
| 703              | Broadway at Pacific Avenue              | Signalized           | C                | 23.8            | C                | 32.8            |
| 704              | Broadway at 32nd Street                 | Signalized           | C                | 19.8            | F                | 54.3            |
| 705              | Wall Street at EVT-D Station Access     | Signalized           | A                | 9.3             | A                | 9.2             |
| 706              | Pacific Avenue at EVT-D Station Access  | TWSC                 | A                | 9.9             | A                | 9.1             |
| 707 <sup>a</sup> | Broadway Avenue at EVT-D Station Access | TWSC                 | -                | -               | -                | -               |
| 708              | Smith Avenue at Pacific Avenue          | TWSC                 | B                | 11.2            | B                | 18.7            |
| 709              | Smith Avenue at 32nd Street             | TWSC                 | A                | 6.1             | A                | 7.5             |
| 710              | Smith Avenue at 33rd Street             | Signalized           | B                | 12.0            | B                | 13.2            |
| 711              | McDougall Avenue at Pacific Avenue      | Signalized           | B                | 14.7            | C                | 17.3            |
| 712              | McDougall Avenue at 32nd Street         | Signalized           | A                | 7.5             | A                | 8.0             |
| 713              | Smith Avenue at EVT-A Station Access    | TWSC                 | A                | 8.7             | B                | 13.9            |
| 714              | Smith Avenue at EVT-A Transit Access    | AWSC                 | A                | 9.7             | B                | 13.6            |
| 715              | Broadway at 33rd Street                 | TWSC                 | A                | 5.7             | A                | 7.8             |
| 716              | Broadway at 34th Street                 | TWSC                 | C                | 23.3            | C                | 15.8            |
| 717              | Broadway at 35th Street                 | Signalized           | D                | 32.1            | C                | 17.8            |
| 718              | Broadway at 36th Street                 | TWSC                 | C                | 22.6            | F                | 70.0            |

NOTE:

- a) Intersection ID 707 is a proposed intersection so there is no existing conditions data for this location.

### 3.3.2.9 OMF Site B

The existing intersection operations during the AM and PM peak hours in the vicinity of OMF Site B are summarized in Table 3-27 and shown in Attachment D.

**Table 3-27 AM and PM Peak Intersection Level of Service – OMF Site B**

| ID  | Intersection                                                        | Intersection Control | Existing AM Peak |                 | Existing PM Peak |                 |
|-----|---------------------------------------------------------------------|----------------------|------------------|-----------------|------------------|-----------------|
|     |                                                                     |                      | LOS              | Delay (sec/veh) | LOS              | Delay (sec/veh) |
| 801 | 75th Street SW at Seaway Boulevard                                  | Signalized           | D                | 48.5            | C                | 23.1            |
| 802 | 75th Street SW at Snohomish County Public Utility District (SnoPUD) | Signalized           | A                | 9.7             | A                | 9.4             |
| 803 | 75th Street SW at Hardezon Road                                     | Signalized           | B                | 17.5            | C                | 30.2            |
| 804 | 75th Street SW at Site Access                                       | TWSC                 | B                | 13.9            | C                | 17.1            |

### 3.4 Parking

The section provides information on the existing public parking that could be affected over time by transit riders driving and parking personal vehicles to access proposed stations. The study area for this parking assessment was areas within a five-minute walk, or roughly 0.25 miles, of the station alternatives. Publicly available parking that would be removed by the guideway or other supporting facilities outside of the study area were analyzed as well.

Block faces within each station area that currently allow on-street parking and off-street parking open to the general public<sup>3</sup> were identified to define parking that could experience effects from light rail riders accessing the system. For this analysis, existing on-street parking capacity was estimated by measuring each block face and assuming 20 feet per parking space to account for driveways, hydrants, and other obstacles. No occupancy information on private parking was gathered. Utilization rates of existing park-and-rides and on-street parking was gathered and that information is included in this section.

Private off-street parking reserved for customers, residents, and workers is not included in the transportation analysis. Rather, impacts to private properties, which would include private parking where it exists, is documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].

#### 3.4.1 West Alderwood Segment

There is no on-street parking in the study area of the West Alderwood Segment. There are also no public parking lots or structures located in the study area.

<sup>3</sup> Public parking includes transit park-and-rides and general public parking garages or lots that are not specifically affiliated with specific land uses or parcels.

Figure 3-16 Existing Conditions On-Street Parking – West Alderwood



### 3.4.2 Ash Way Segment

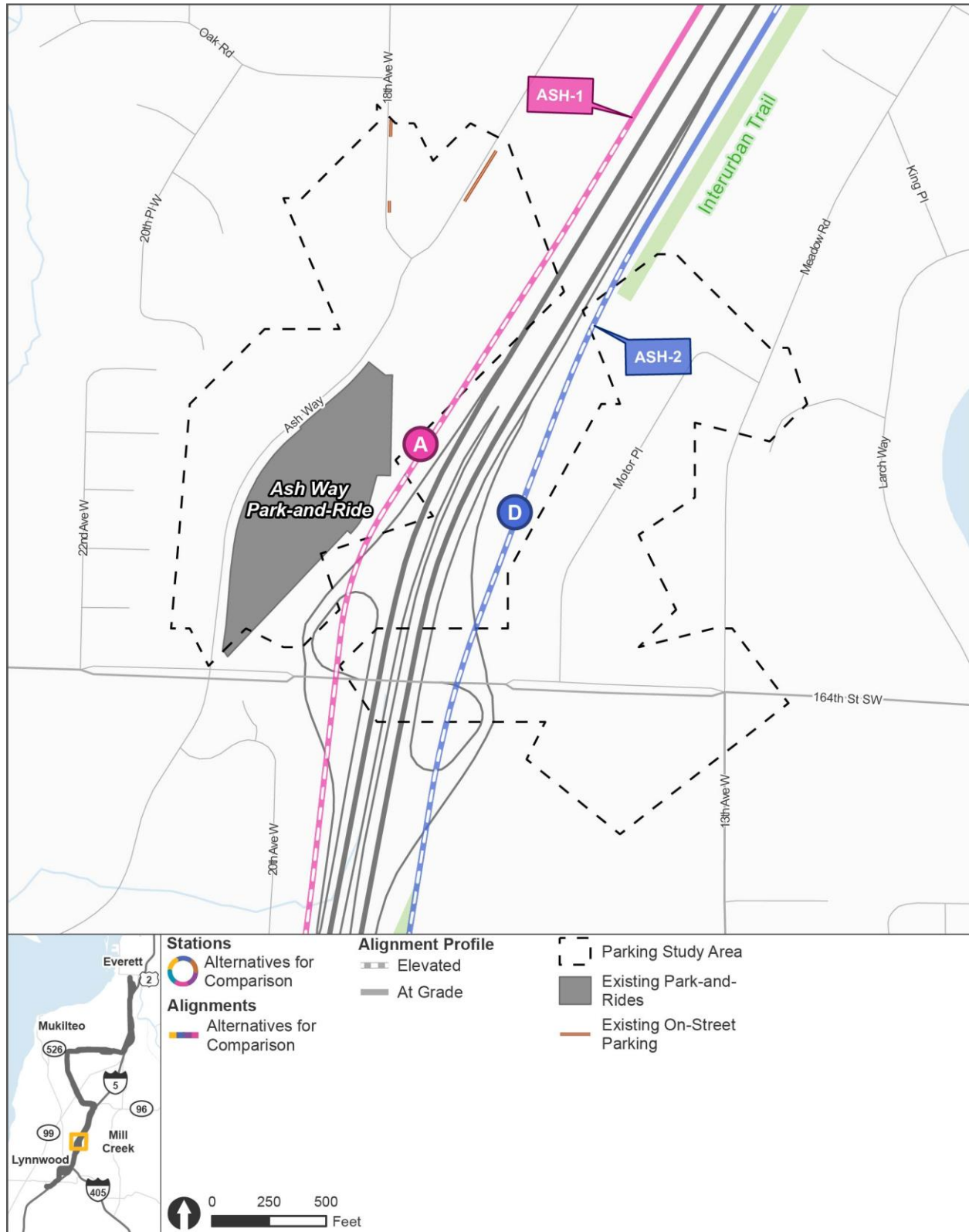
Estimated on-street parking supply in the study area in the Ash Way Segment is shown in Table 3-28 and Figure 3-17. The study area also includes the Ash Way Park-and-Ride, which has a capacity of 1,037 cars and, in 2023, had a peak weekday utilization rate of 72%.

**Table 3-28 Inventoried Station Area On-Street Parking Supply – Ash Way Segment**

| Street                                     | Estimated On-Street Parking Capacity | Utilization |
|--------------------------------------------|--------------------------------------|-------------|
| 18th Avenue W                              | 7                                    | 0%          |
| Ash Way                                    | 13                                   | 65.4%       |
| Total Estimated On-Street Parking Capacity | 20                                   | 42.5%       |



Figure 3-17 Existing Conditions On-Street Parking – Ash Way Station Area



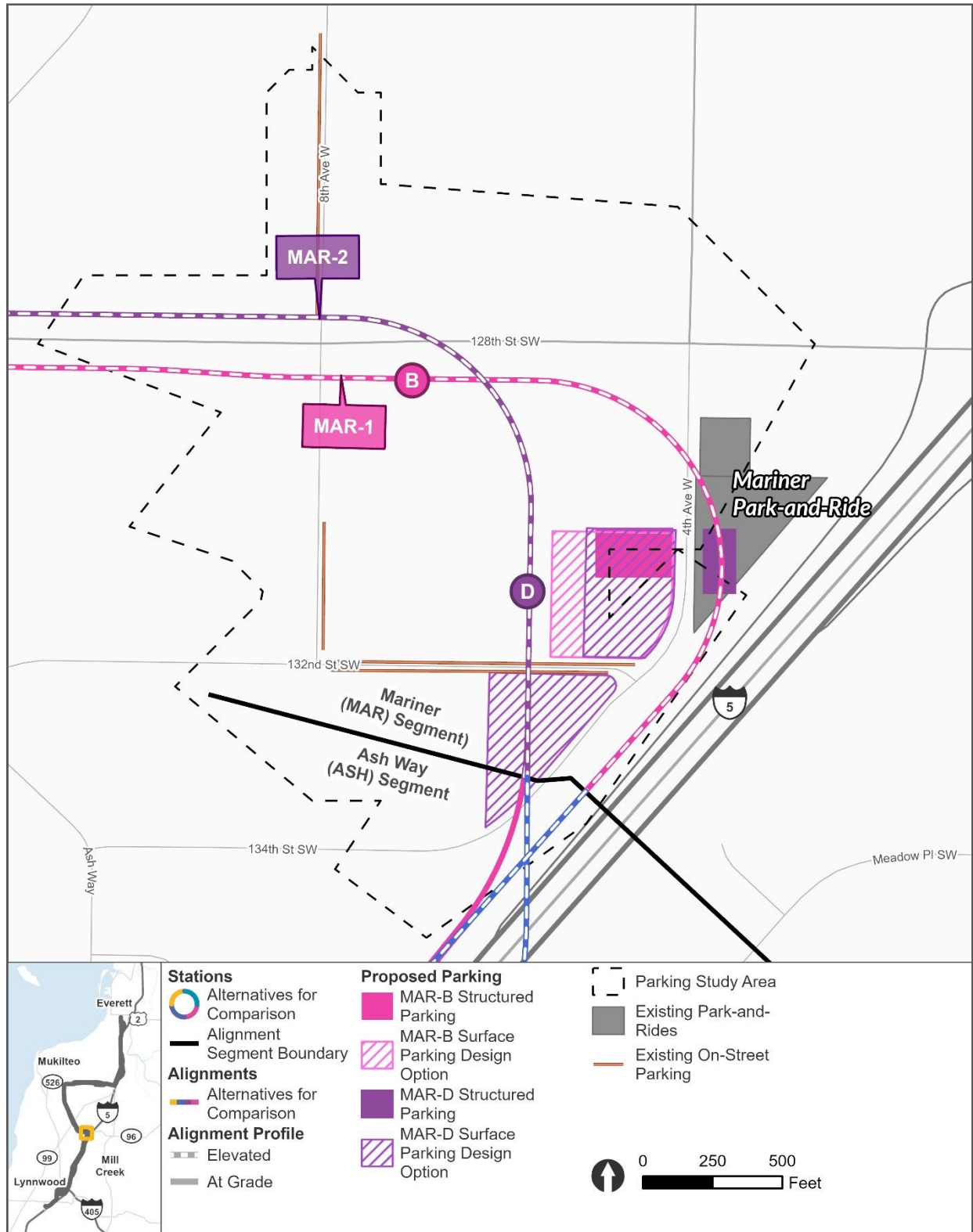
### 3.4.3 Mariner Segment

Estimated on-street parking supply in the Mariner station area is shown in Table 3-29 and Figure 3-18. The study area also includes the Mariner Park-and-Ride, which has a capacity of 653 cars and, in 2023, had a peak utilization rate of 15%.

**Table 3-29 Inventoried Station Area On-Street Parking Supply – Mariner Segment**

| Street                                     | Estimated On-Street Parking Capacity | Utilization |
|--------------------------------------------|--------------------------------------|-------------|
| 8th Avenue W                               | 85                                   | 9.4%        |
| 132nd Street SW                            | 105                                  | 23.3%       |
| Total Estimated On-Street Parking Capacity | 190                                  | 17.1%       |

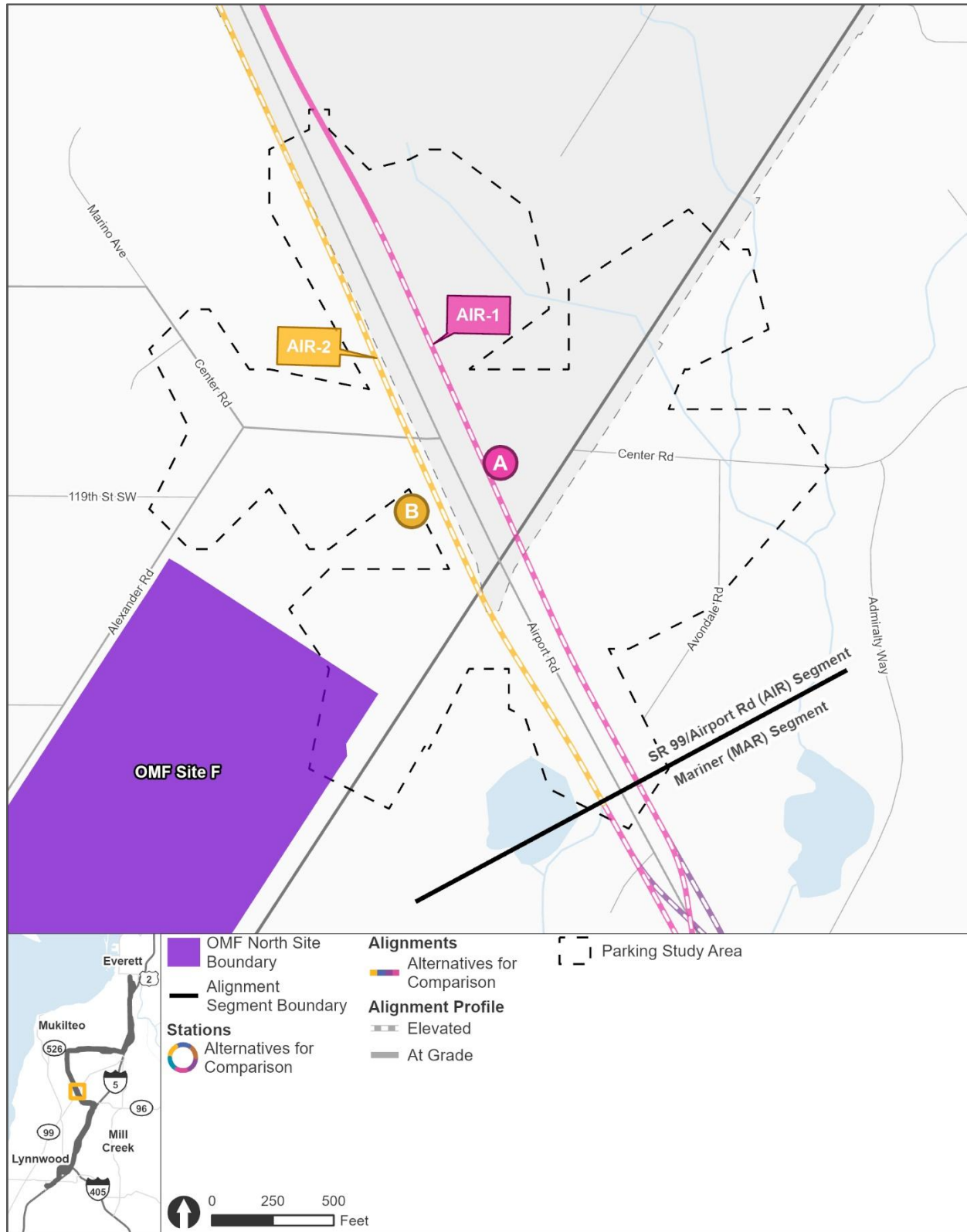
Figure 3-18 Existing On-Street Parking – Mariner Station Area



#### **3.4.4 SR 99/Airport Road Segment**

There is no public on-street parking in the study area within the SR 99/Airport Road Segment. There are also no public parking lots or structures located in this segment.

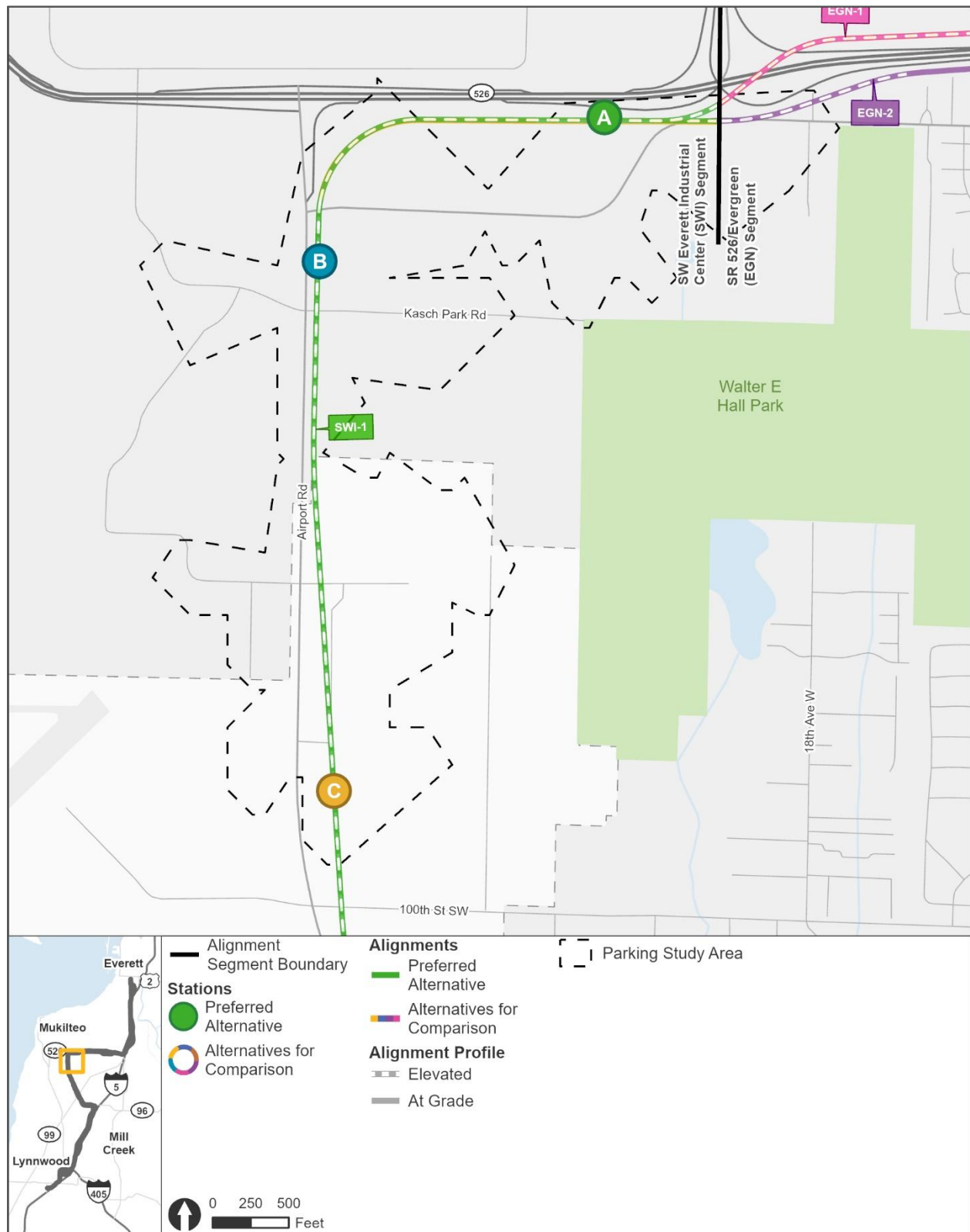
Figure 3-19 Existing Conditions On-Street Parking – SR 99/Airport Road



### **3.4.5 SW Everett Industrial Center Segment**

There is no public on-street parking in the study area within the SW Everett Industrial Center Segment. There are also no public parking lots or structures located in this segment.

Figure 3-20 Existing Conditions On-Street Parking – SW Everett Industrial Center



### 3.4.6 SR 526/Evergreen Segment

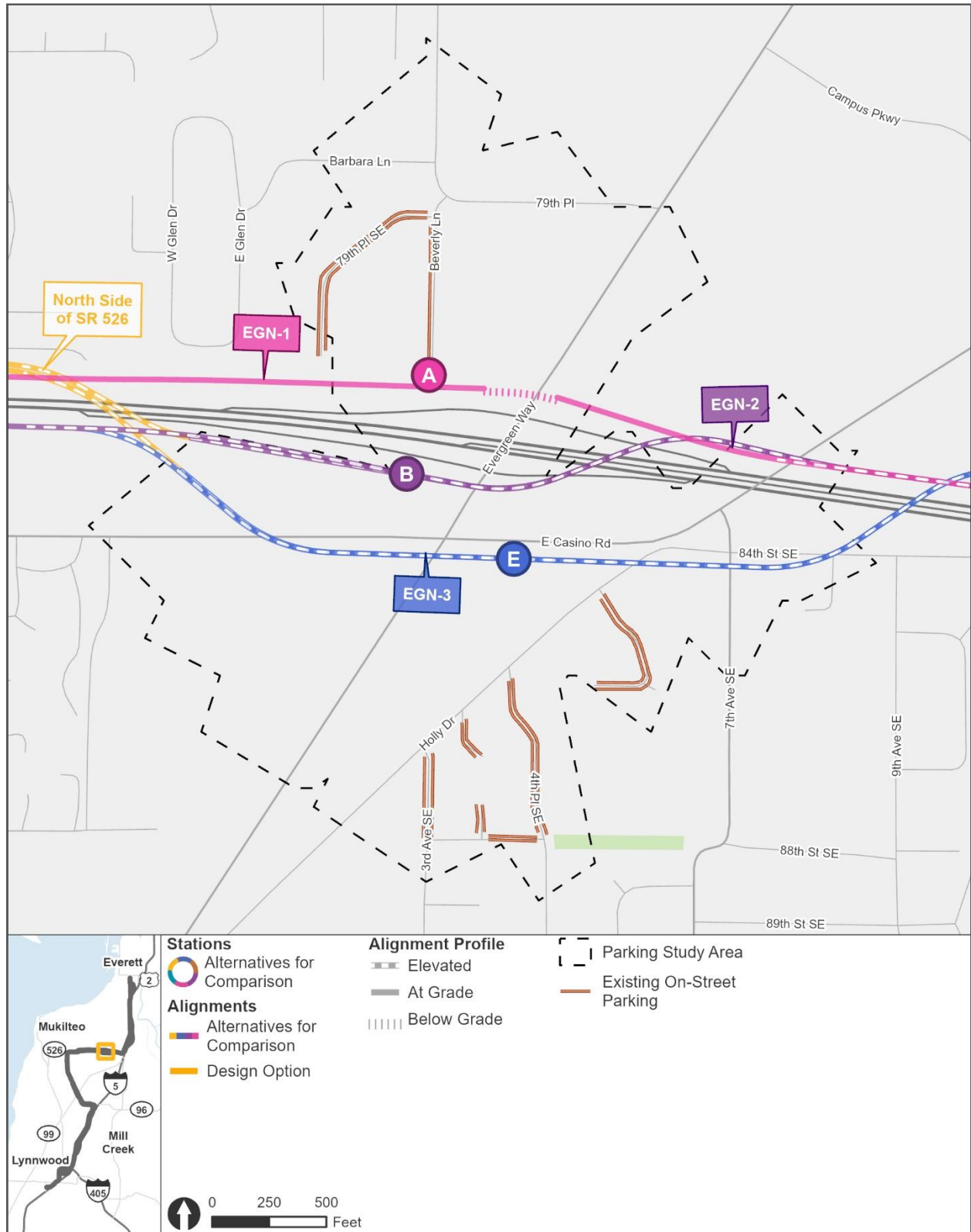
Estimated on-street parking supply in the SR 526/Evergreen station area is shown in Table 3-30 and Figure 3-21. There are no public parking lots or structures located in this segment.

**Table 3-30 Inventoried Station Area On-Street Parking Supply – SR 526/Evergreen Segment**

| Street                                     | Estimated On-Street Parking Capacity | Utilization |
|--------------------------------------------|--------------------------------------|-------------|
| 6th Avenue SE                              | 44                                   | 14.8%       |
| 86th Avenue SE                             | 21                                   | 14.3%       |
| 4th Place SE                               | 71                                   | 4.9%        |
| 3rd Drive SE                               | 18                                   | 5.6%        |
| 3rd Avenue SE                              | 37                                   | 2.7%        |
| 88th Street SE                             | 34                                   | 16.2%       |
| Beverly Lane                               | 36                                   | 11.1%       |
| 79th Place SE                              | 88                                   | 9.7%        |
| Total Estimated On-Street Parking Capacity | 349                                  | 9.5%        |



Figure 3-21 Existing On-Street Parking – SR 526/Evergreen Station Area



### 3.4.7 Broadway/I-5 Segment

Since there are no station alternatives in the Broadway/I-5 Segment, parking supply was not studied for this analysis. As noted in Section 3.4, the effects to publicly available parking capacity (in this case on-street parking only) is evaluated in Section 4.4.1.

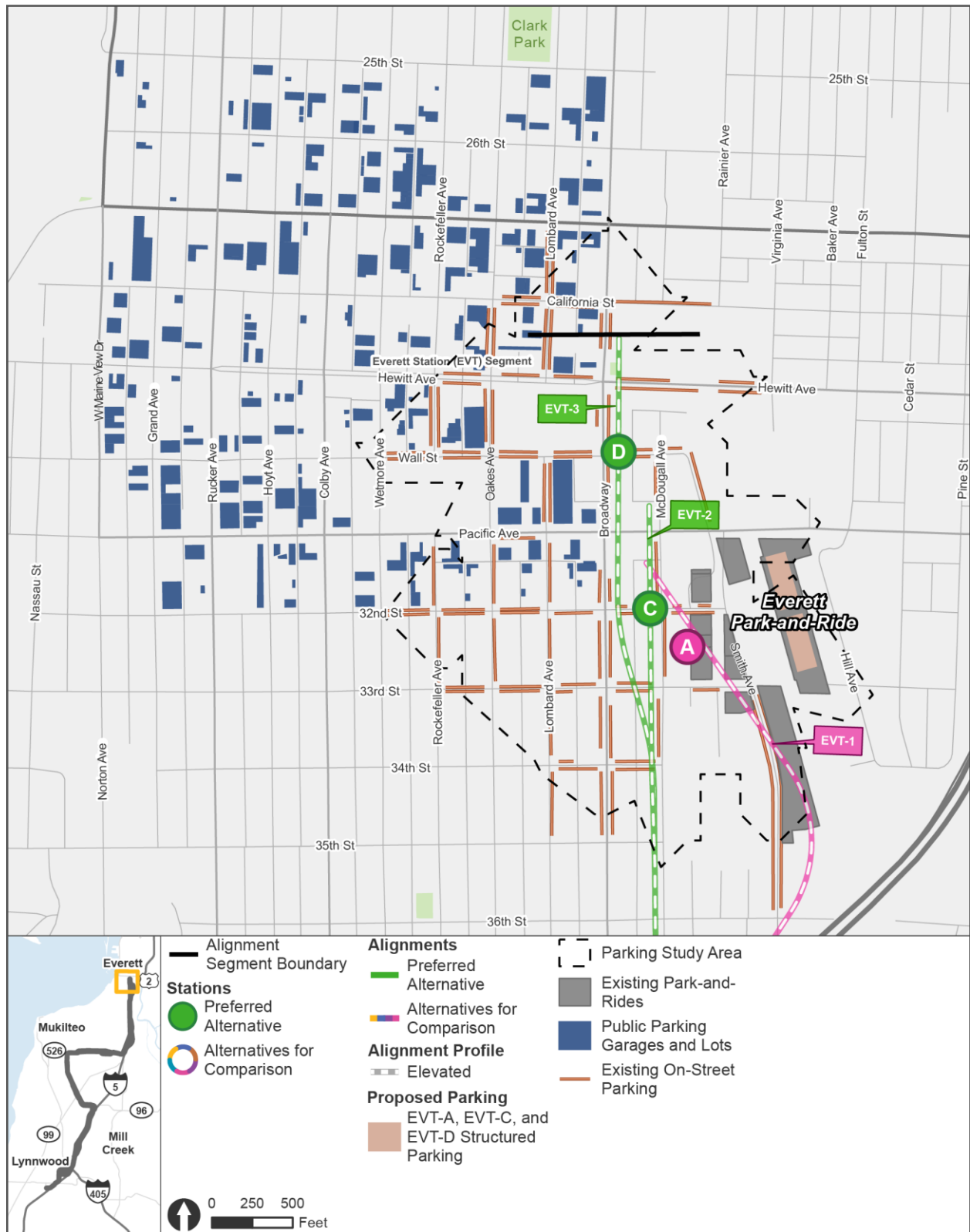
### 3.4.8 Everett Station Segment

Estimated on-street parking supply in the Everett Station area is shown in Table 3-31. There are 48 public off-street parking facilities with a total capacity of 882 spaces within the Everett Station parking study area, according to data provided by the City of Everett. The study area also includes the park-and-ride lots at the existing Everett Station facility that have a capacity of 1,148 and, in January 2024, had a peak weekday utilization rate of 45%. Publicly available on-street parking and off-street public parking facilities in the Everett Station area are shown in Figure 3-22.

**Table 3-31 Inventoried Station Area On-Street Parking Supply – Everett Station Segment**

| Street                                     | Estimated On-Street Parking Capacity | Utilization |
|--------------------------------------------|--------------------------------------|-------------|
| Oakes Avenue                               | 126                                  | 33.3%       |
| Broadway                                   | 172                                  | 33.1%       |
| Wall Street                                | 146                                  | 55.1%       |
| Rockefeller Avenue                         | 73                                   | 36.3%       |
| 33rd Street                                | 107                                  | 46.3%       |
| Smith Avenue                               | 40                                   | 26.3%       |
| Paine Avenue                               | 13                                   | 73.1%       |
| McDougall Avenue                           | 94                                   | 49.5%       |
| 32nd Street                                | 122                                  | 49.2%       |
| Pacific Avenue                             | 11                                   | 31.8%       |
| Lombard Avenue                             | 175                                  | 54%         |
| 34th Street                                | 63                                   | 70.6%       |
| Hewitt Avenue                              | 97                                   | 24.7%       |
| California Street                          | 60                                   | 29.2%       |
| Total Estimated On-Street Parking Capacity | 1,299                                | 43.6%       |

**Figure 3-22 Existing On-Street and Public Off-Street Parking – Everett Station Area**



### 3.4.9 OMF North

Since OMF North would not be open to the public, parking was not analyzed. Impacts to private properties located within the OMF North site alternatives, which would include private parking where it exists, is documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].

## 3.5 Non-Motorized Facilities

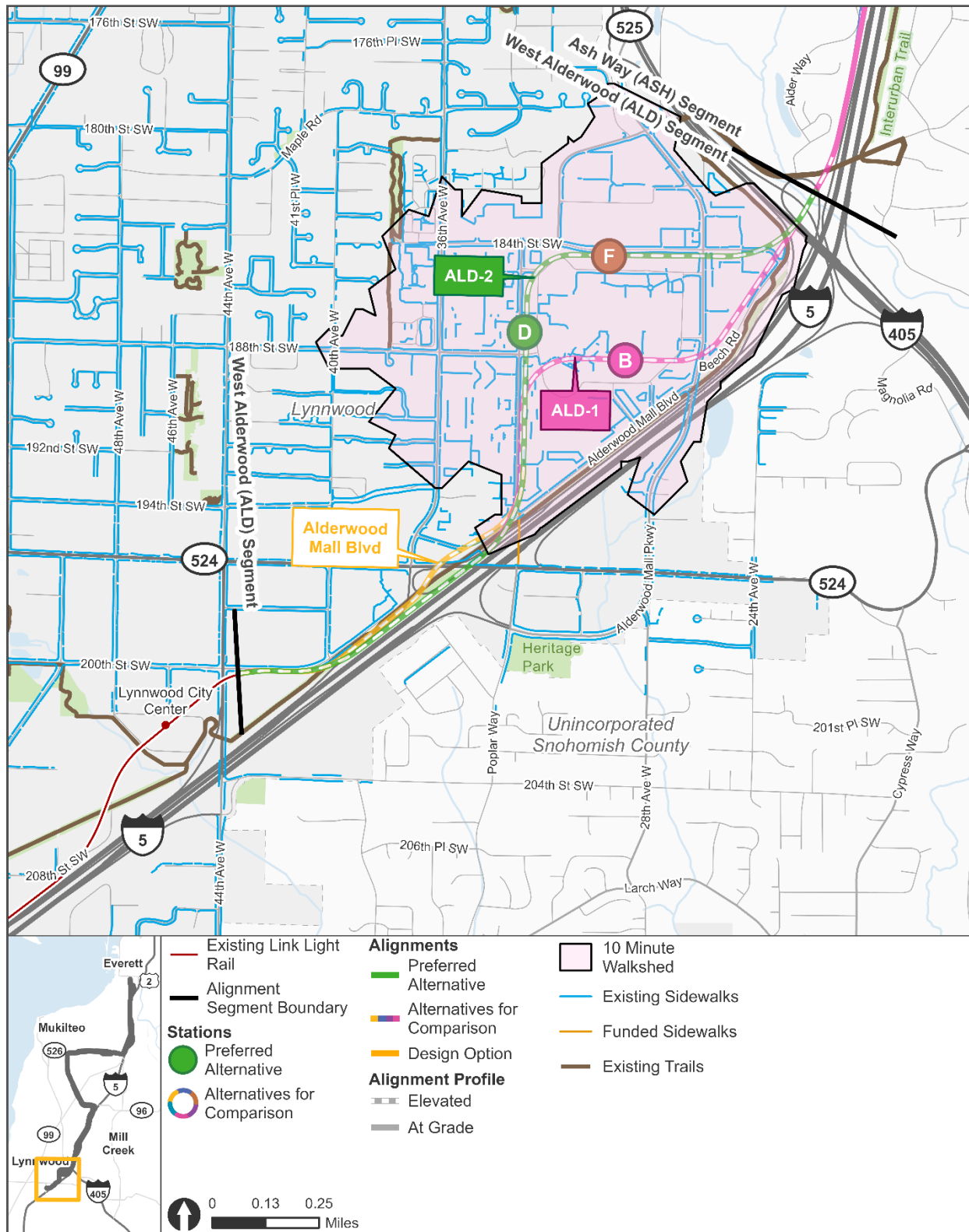
### 3.5.1 Sidewalks, Pedestrian Trails, and Crosswalks

Existing and funded sidewalks, trails, marked crosswalks, and curb ramps were inventoried in all areas covered by the 10-minute walkshed. The Broadway/I-5 Segment does not have an associated station, but the general characteristics of pedestrian facilities in that segment are discussed here. The Interurban Trail, a multi-use trail running throughout the project area, is primarily addressed in Section 3.5.2 but is also discussed in this section since the trail provides substantive pedestrian connectivity. Similarly, some sidewalks are covered in Section 3.5.2 that are designed to be wide enough for biking. Other trails through parks that are not used as biking routes are also included in this section.

#### 3.5.1.1 West Alderwood Segment

Sidewalks and pedestrian trails in the West Alderwood Segment are shown in Figure 3-23. Sidewalks are found generally on both sides of the streets, except along 184th Street SW, where sidewalks exist only on the north side of the road across from Alderwood Mall. Marked four-way crosswalks exist at most key intersections on arterial and collector streets. Sidewalks are also found around a majority of the single-family home areas. Trails in the West Alderwood Segment are found within Pioneer Park and North Lynnwood Park, which connect to nearby neighborhoods, and within Greenbelt Park, which borders the Lynnwood Library, City Hall, and Lynnwood Recreation Center. In addition, the Interurban Trail parallels Alderwood Mall Boulevard in this segment. The City of Lynnwood is currently planning an extension of Poplar Way across I-5 to connect with 33rd Avenue W. This project will include sidewalks and a new pedestrian crossing over I-5 when complete.

**Figure 3-23 Existing and Funded Pedestrian Facilities – West Alderwood Segment**

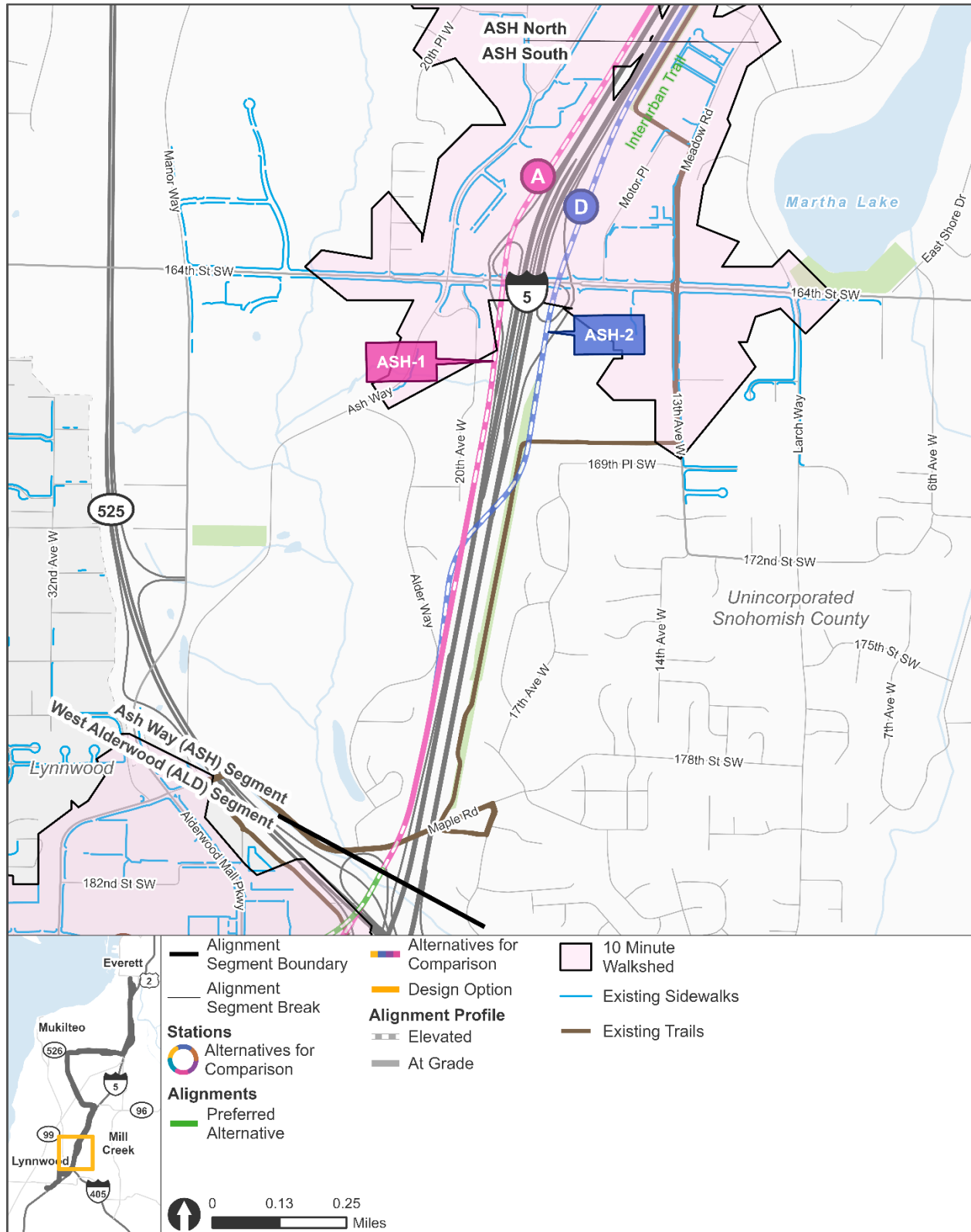


SOURCE: Snohomish County (2023); City of Lynnwood (2023).

### **3.5.1.2 Ash Way Segment**

Sidewalks and pedestrian trails in the Ash Way Segment are shown in Figure 3-24 and Figure 3-25. The few sidewalk connections in the Ash Way Segment are concentrated around the intersection of I-5 and 164th Street SW, with sidewalks along both sides of 164th Street SW and Ash Way and within some residential neighborhoods. Many streets lack sidewalks, including Manor Way, portions of Ash Way, Cascadian Way, Larch Way, and streets within most residential neighborhoods in this segment. Meadow Road, which includes an on-road section of the Interurban Trail, also has no dedicated pedestrian access or sidewalks.

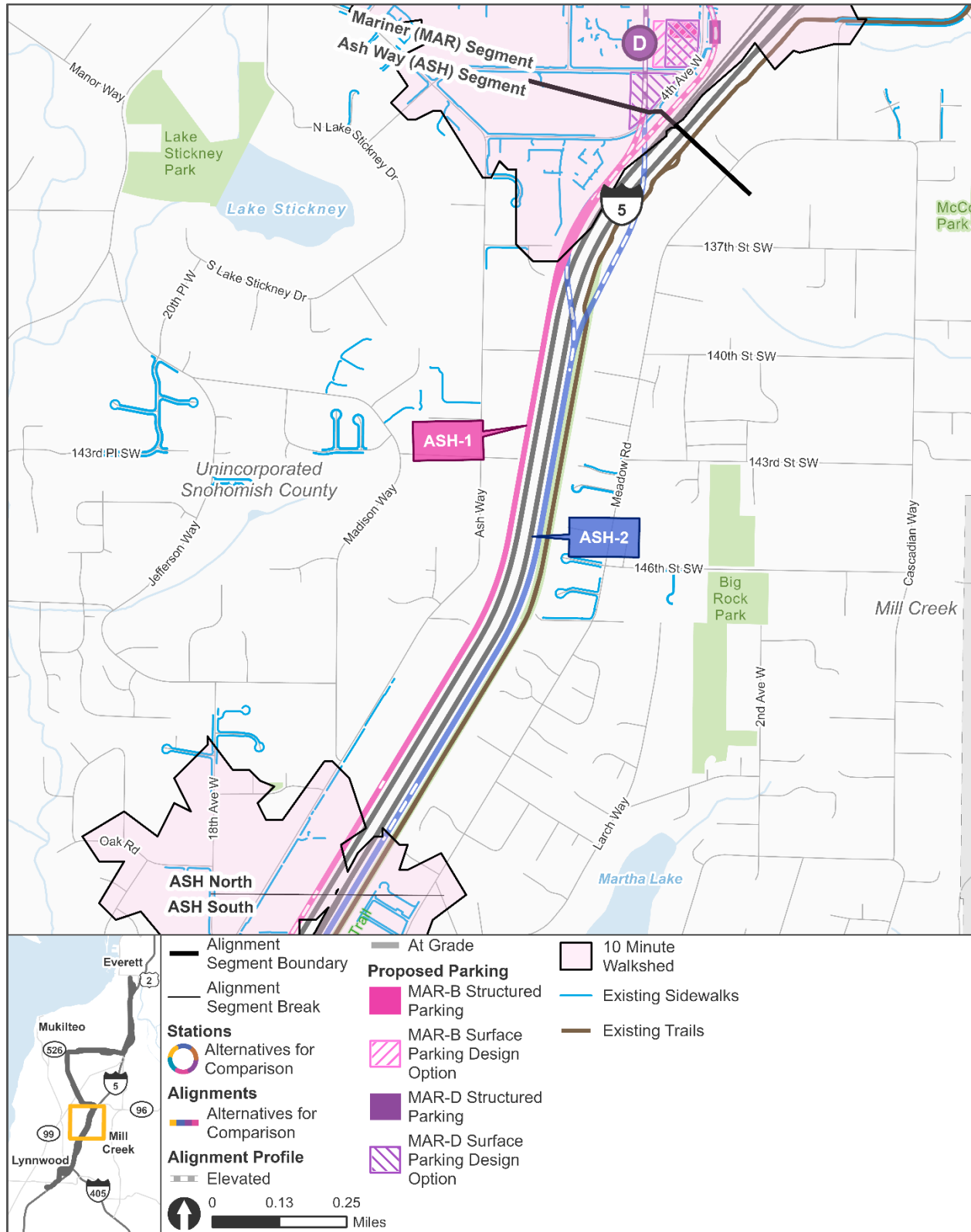
Figure 3-24 Existing and Pedestrian Facilities – Ash Way Segment (South)



SOURCE: Snohomish County (2023); City of Lynnwood (2023).



Figure 3-25 Existing Pedestrian Facilities – Ash Way Segment (North)



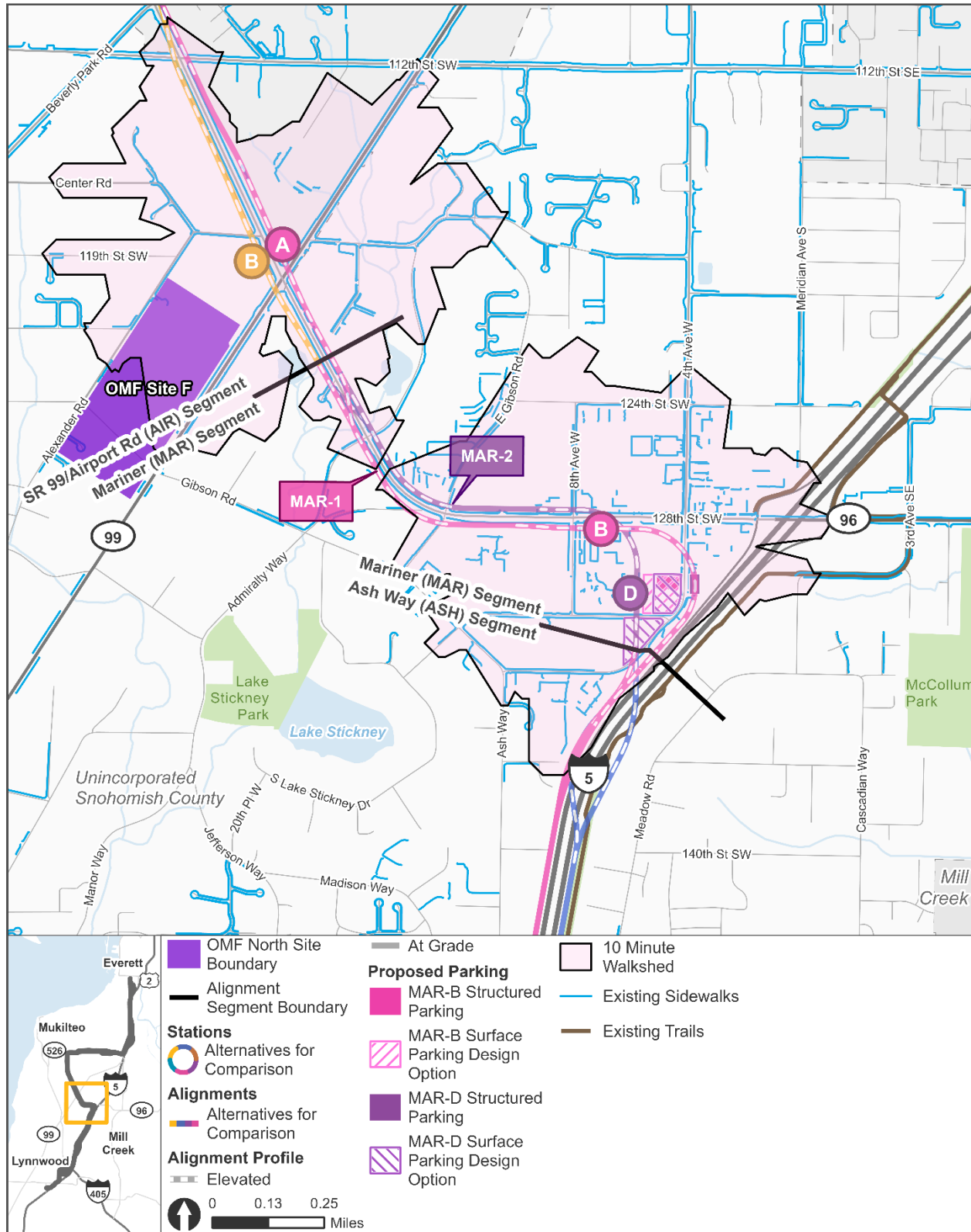
SOURCE: Snohomish County (2023).



### **3.5.1.3 Mariner Segment**

Sidewalks and pedestrian trails in the Mariner Segment are shown in Figure 3-26. There are stretches of streets that include sidewalks on both sides, including along 128th Street SW, 132nd Street SW, 8th Avenue W, and 4th Avenue W, and all walksheds include a portion of the Interurban Trail. In the area surrounding the Mariner Station alternatives, stretches of 124th Street SW do not have sidewalks. There is a portion of the Interurban Trail in this segment on the east side of I-5, crossing over to the west side of I-5 north of 128th Street SW.

Figure 3-26 Existing Pedestrian Facilities – Mariner Segment

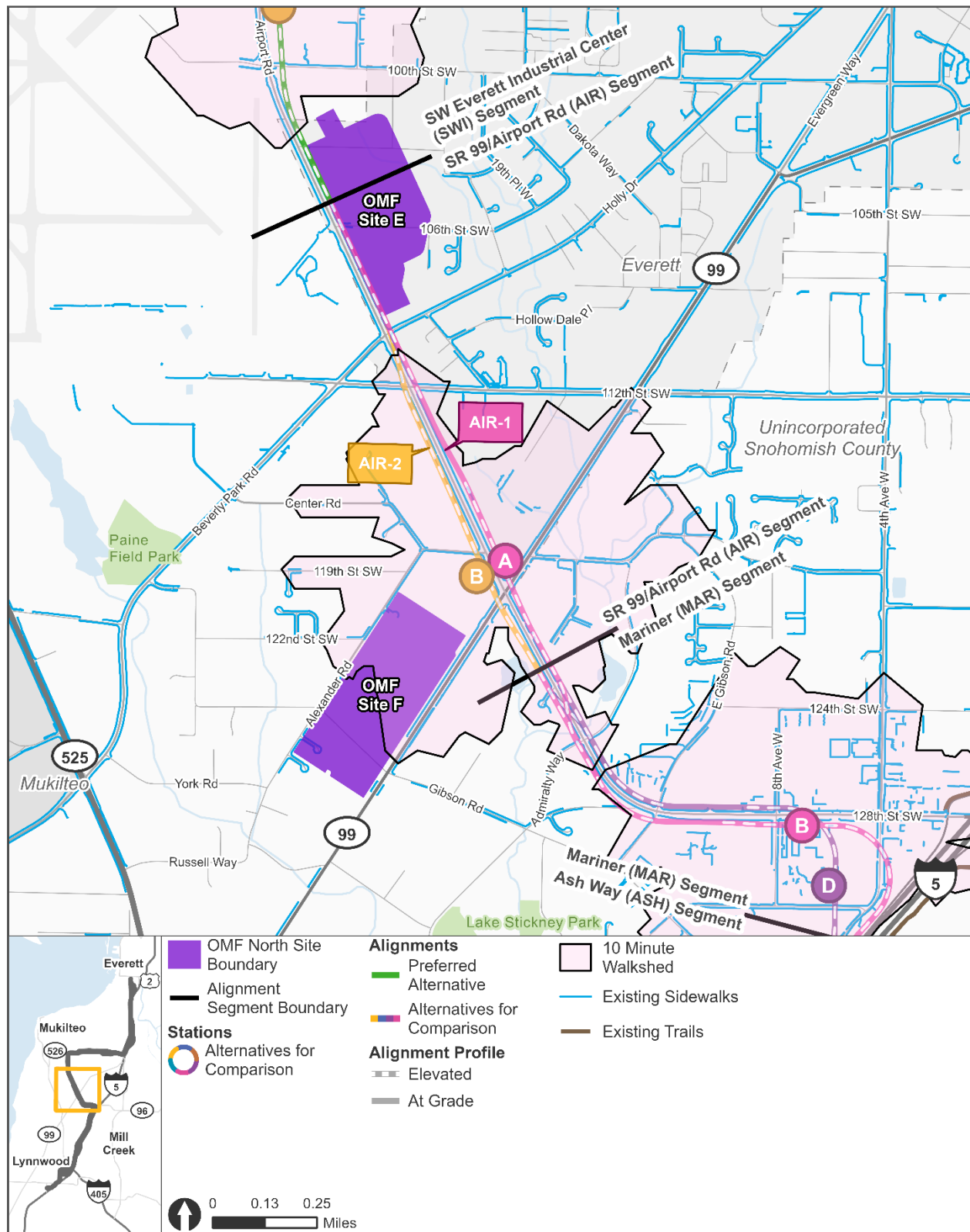


SOURCE: Snohomish County (2023); City of Everett (2023).

#### **3.5.1.4 SR 99/Airport Road Segment**

Sidewalks and pedestrian trails in the SR 99/Airport Road Segment are shown in Figure 3-27. Most streets in this segment have sidewalks on both sides, but crossings of large arterials, such as SR 99 and Airport Road, are long and often multi-legged, split by channelized turning lanes. Where these two roadways intersect with Center Road, there are currently no controlled or marked crossings on either Airport Road or SR 99, which requires people walking and rolling to travel through the busy intersection of Airport Road and SR 99 for access between different parts of the station area. There are no trails in this segment.

**Figure 3-27 Existing Pedestrian Facilities – SR 99/Airport Road Segment**

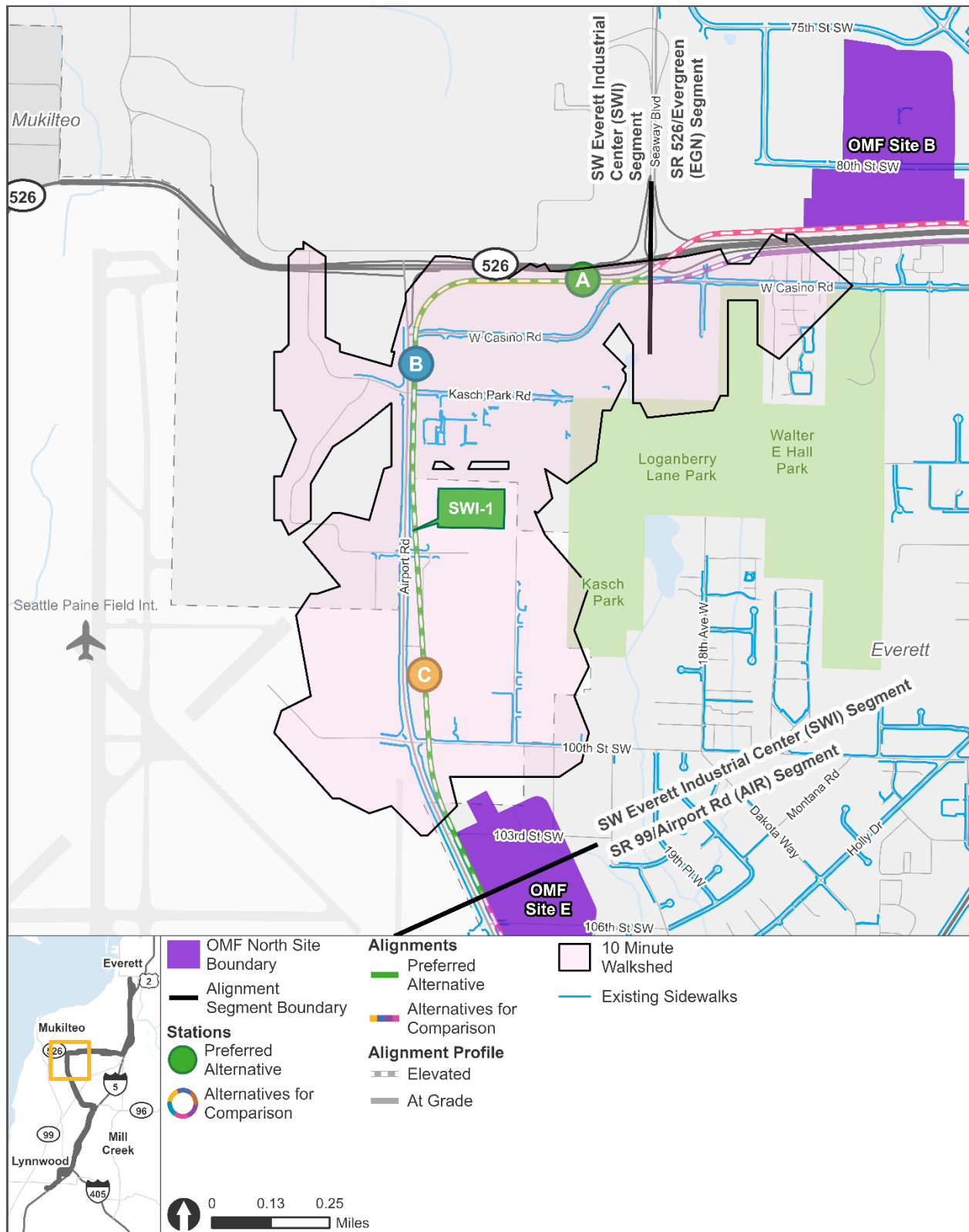


SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.1.5 SW Everett Industrial Center Segment**

Sidewalks and pedestrian trails in the SW Everett Industrial Center Segment are shown in Figure 3-28. Sidewalks exist along most public roads within the segment and tend to run on both sides of major arterials like Airport Road and W Casino Road as well as residential streets around Kasch Park and to the south of 100th Street SW. Sidewalks do not exist along a portion of 100th Street SW and along some neighborhood streets. There are no trails in this segment.

Figure 3-28 Existing Pedestrian Facilities – SW Everett Industrial Center Segment

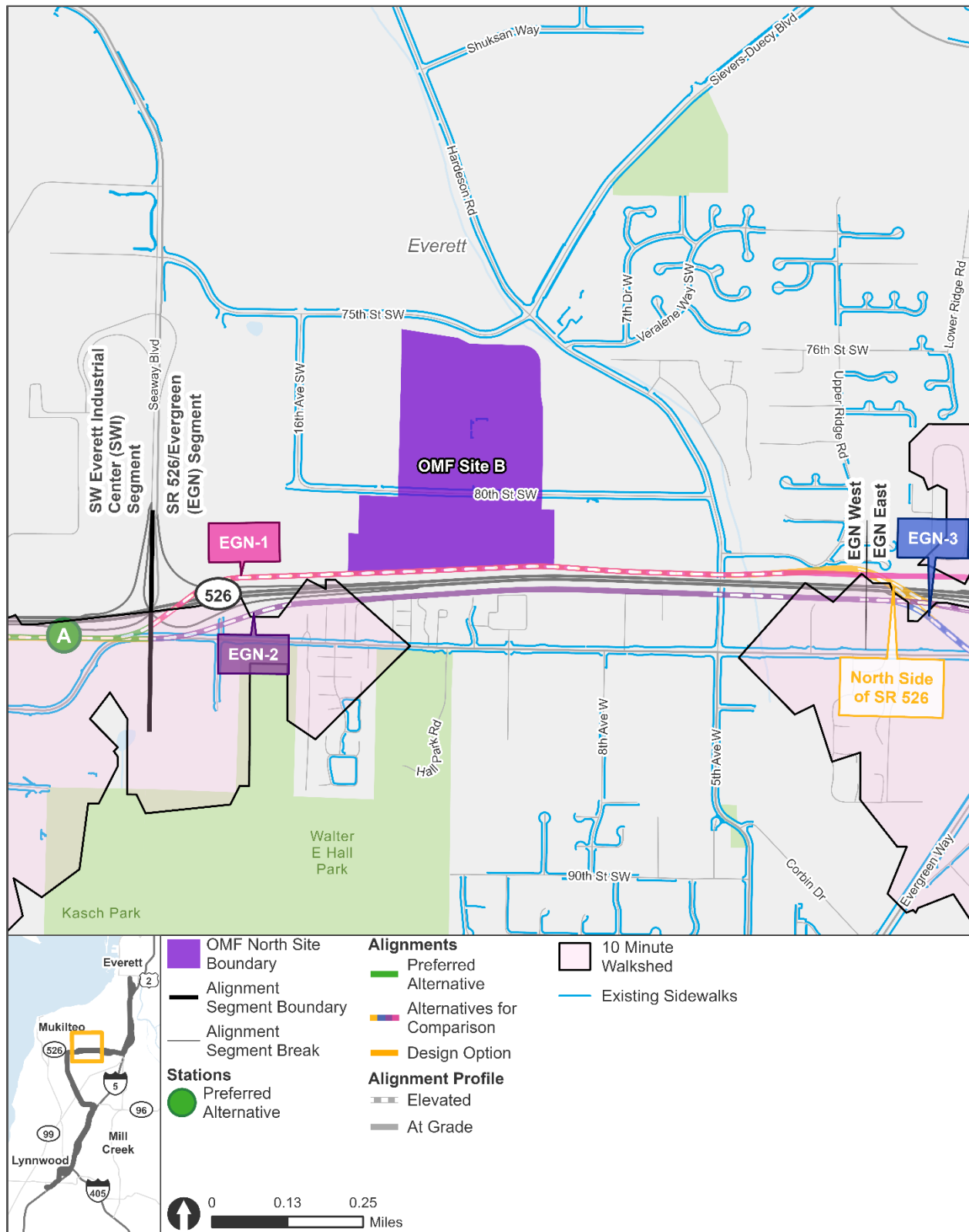


SOURCE: City of Everett (2023).

#### **3.5.1.6 SR 526/Evergreen Segment**

Sidewalks and pedestrian trails in the SR 526/Evergreen Segment are shown in Figure 3-29 and Figure 3-30. Sidewalks exist along the entirety of W Casino Road, E Casino Road, and Evergreen Way along both sides of the road within this segment. Residential areas, particularly to the south SR 526, are well covered by sidewalks. Some streets in residential neighborhoods, primarily towards the northeast portion of the segment, do not have sidewalks. The Interurban Trail is separated by SR 526, ending at Casino Road on the north side and restarting at 84th Street SE on the south.

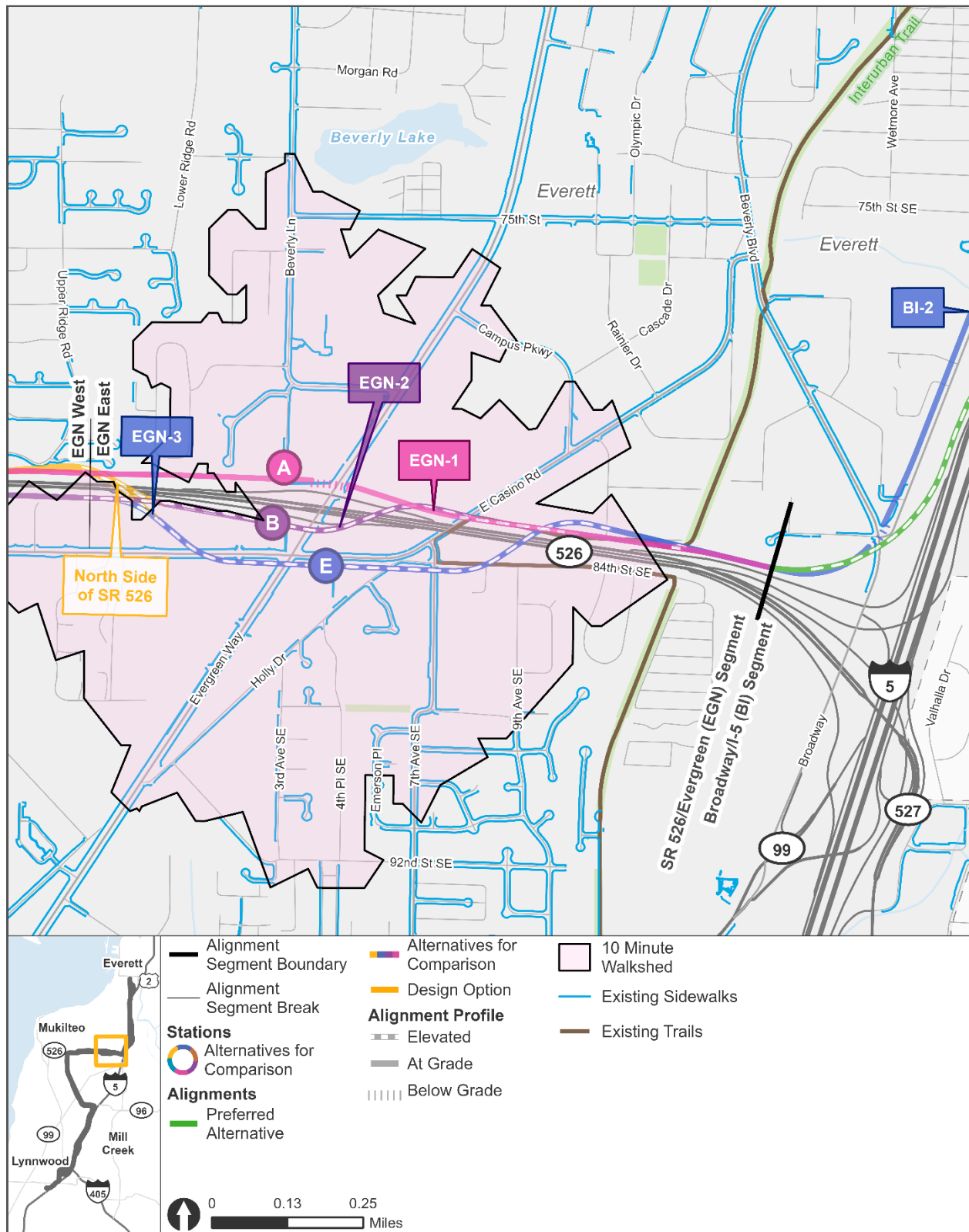
Figure 3-29 Existing Pedestrian Facilities – SR 526/Evergreen Segment (West)



SOURCE: City of Everett (2023).



Figure 3-30 Existing Pedestrian Facilities – SR 526/Evergreen Segment (East)



SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.1.7 Broadway/I-5 Segment**

Many of the streets in the Broadway/I-5 Segment are missing sidewalks as shown in Figure 3-31 and Figure 3-32. In the Valley View development, on the west side of I-5 off 75th Street SE, most streets have sidewalks, and some of the major streets, such as Beverly Boulevard, Colby Avenue, Madison Street, and 52nd Avenue, have sidewalks, but the neighborhood streets and Broadway do not. Pedestrians can use the Interurban Trail, which runs as a mixed-use trail through parts of the segment, but the section along Commercial Avenue is a painted bicycle lane, and there is no pedestrian path.

Figure 3-31 Existing Pedestrian Facilities – Broadway/I-5 Segment (South)



SOURCE: Snohomish County (2023); City of Everett (2023).

Figure 3-32 Existing Pedestrian Facilities – Broadway/I-5 Segment (North)

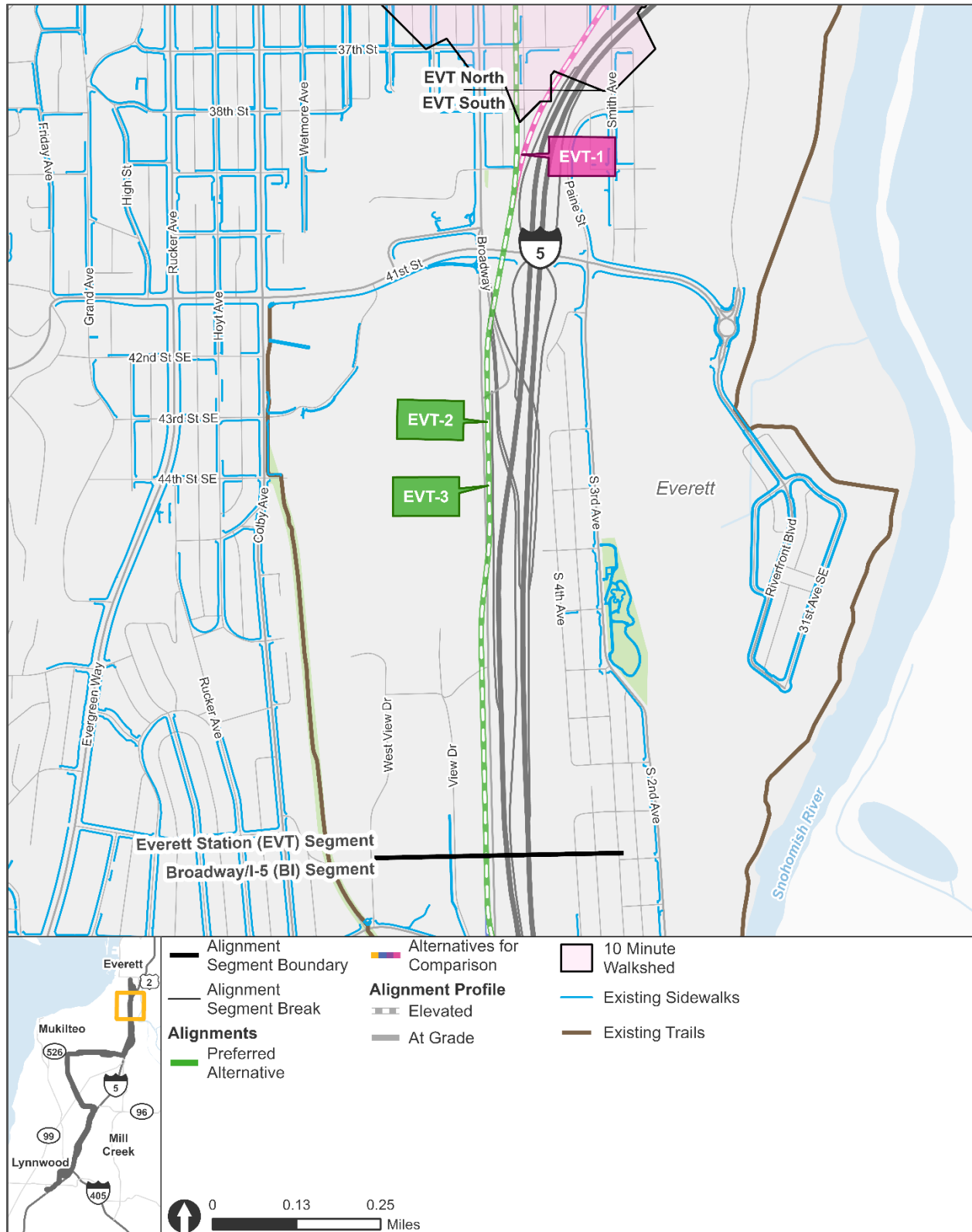


SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.1.8 Everett Segment**

Sidewalks and pedestrian trails in the Everett Station Segment are shown in Figure 3-33 and Figure 3-34. Sidewalks cover a majority of the study area around the station alternatives and are found on both sides of most streets. Some streets in the Lowell Park neighborhood do not have sidewalks, including intermittently along S 3rd Avenue, along the entirety of S 4th Avenue, and along View Drive in front of Lowell Elementary School. Additionally, there are no sidewalks along College Avenue between 46th Street SE and 52nd Street SE or in the surrounding residential area. There are two trails in this segment: the Lowell Riverfront Trail along the Snohomish River and the Interurban Trail which begins near Colby Avenue and 41st Street.

Figure 3-33 Existing Pedestrian Facilities – Everett Station Segment (South)



SOURCE: Snohomish County (2023); City of Everett (2023).

Figure 3-34 Existing Pedestrian Facilities – Everett Station Segment (North)



SOURCE: Snohomish County (2023); City of Everett (2023).

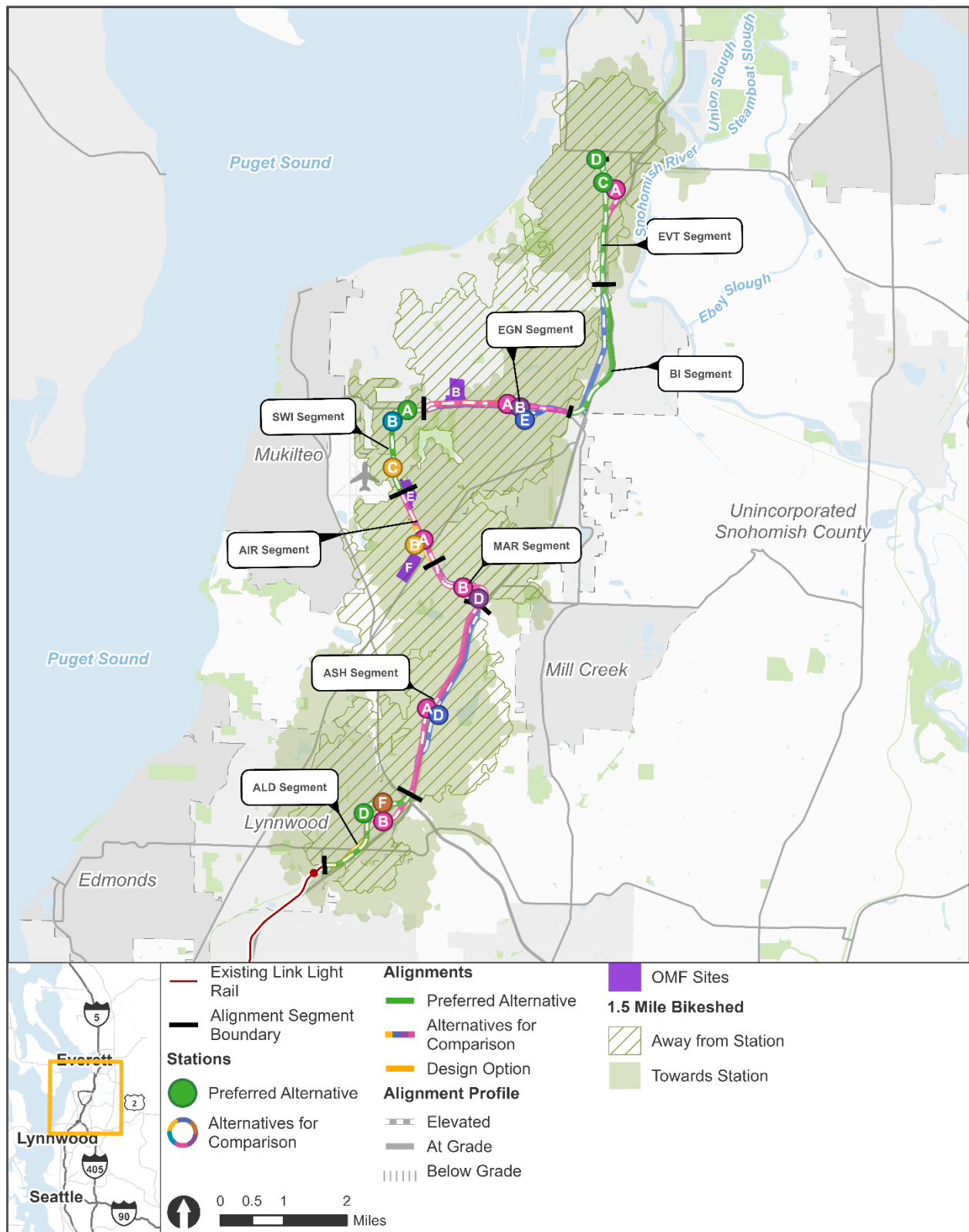


### **3.5.2 Bicycle Facilities and Multi-Use Trails**

This section identifies existing and funded bicycle facilities and multi-use trails near the stations. The study area for bicycle facilities was defined by how far the average person could bike by expending 23,000 joules, which is the amount of energy it takes the average person to bicycle 1.5 miles on flat ground; this methodology allows for farther travel downhill but restricts the range of uphill travel. The 1.5-mile bikesheds to and from the station alternatives are shown in Figure 3-35. Facilities in the corridor include painted on-street bicycle lanes, locally designated bikeable sidewalks (wider sidewalks designed to accommodate bicycles and pedestrians), and multi-use trails (paved trails separated from other vehicle traffic wide enough to accommodate bicycles), such as the Interurban Trail. Existing and funded bicycle facilities in the study area are shown in Figure 3-36 through Figure 3-47



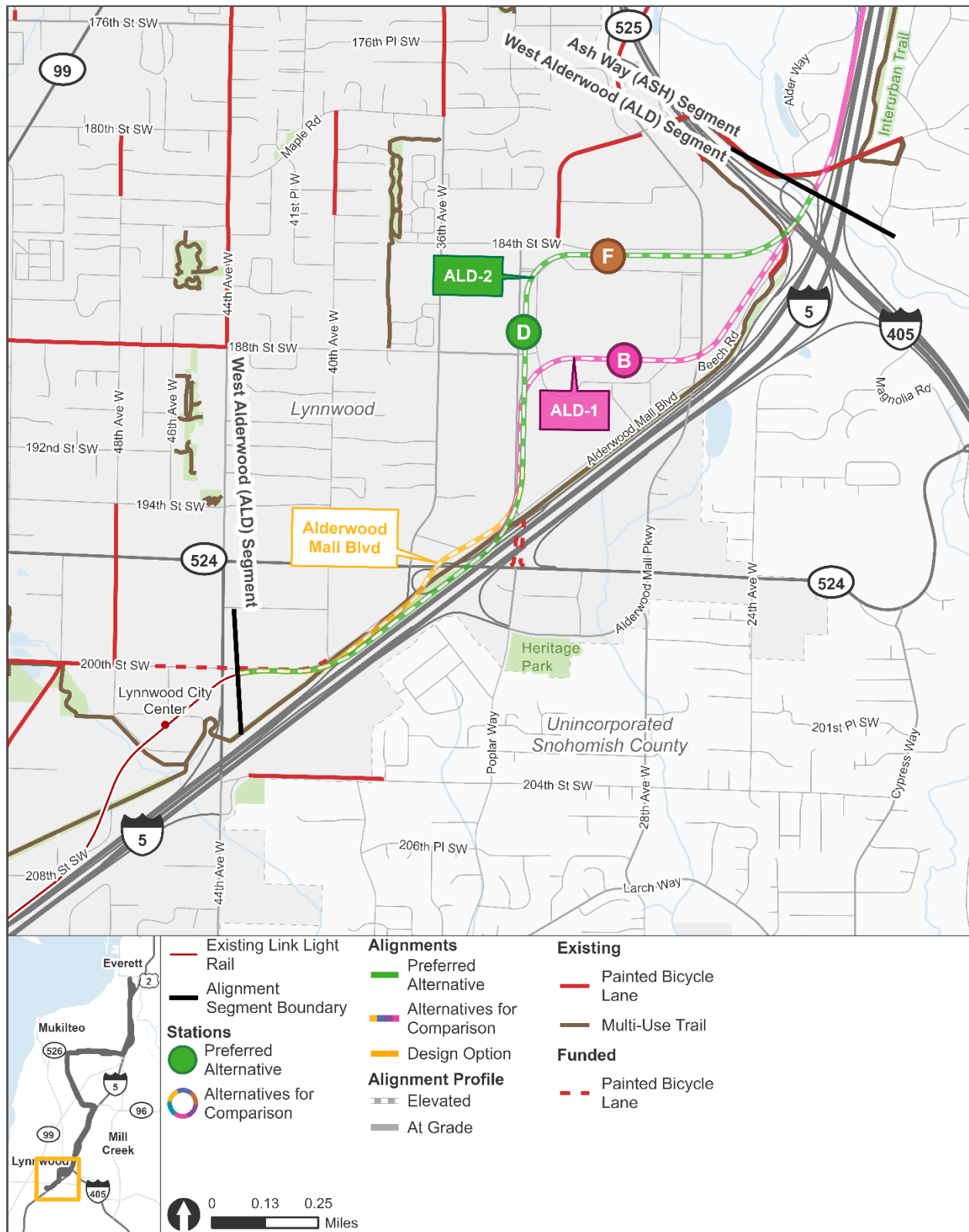
Figure 3-35 Everett Link Extension Bikeshed



### **3.5.2.1 West Alderwood Segment**

Existing and funded bicycle facilities in the West Alderwood Segment are shown in Figure 3-36. The bicycle facilities around the West Alderwood station area are intermittent, with facilities along streets primarily located to the east of I-5. There are existing bicycle facilities along 48th Avenue W, 44th Avenue W, 36th Avenue W starting at Maple Road going north, and 188th Street SW to the west of 44th Avenue W that primarily consist of painted lanes with some sharrows. Busier roads near Alderwood Mall, such as 196th Street SE (SR 524), 184th Street SW, and 33rd Avenue W, do not have bicycle facilities.

**Figure 3-36 Existing and Funded Bicycle Facilities – West Alderwood Segment**

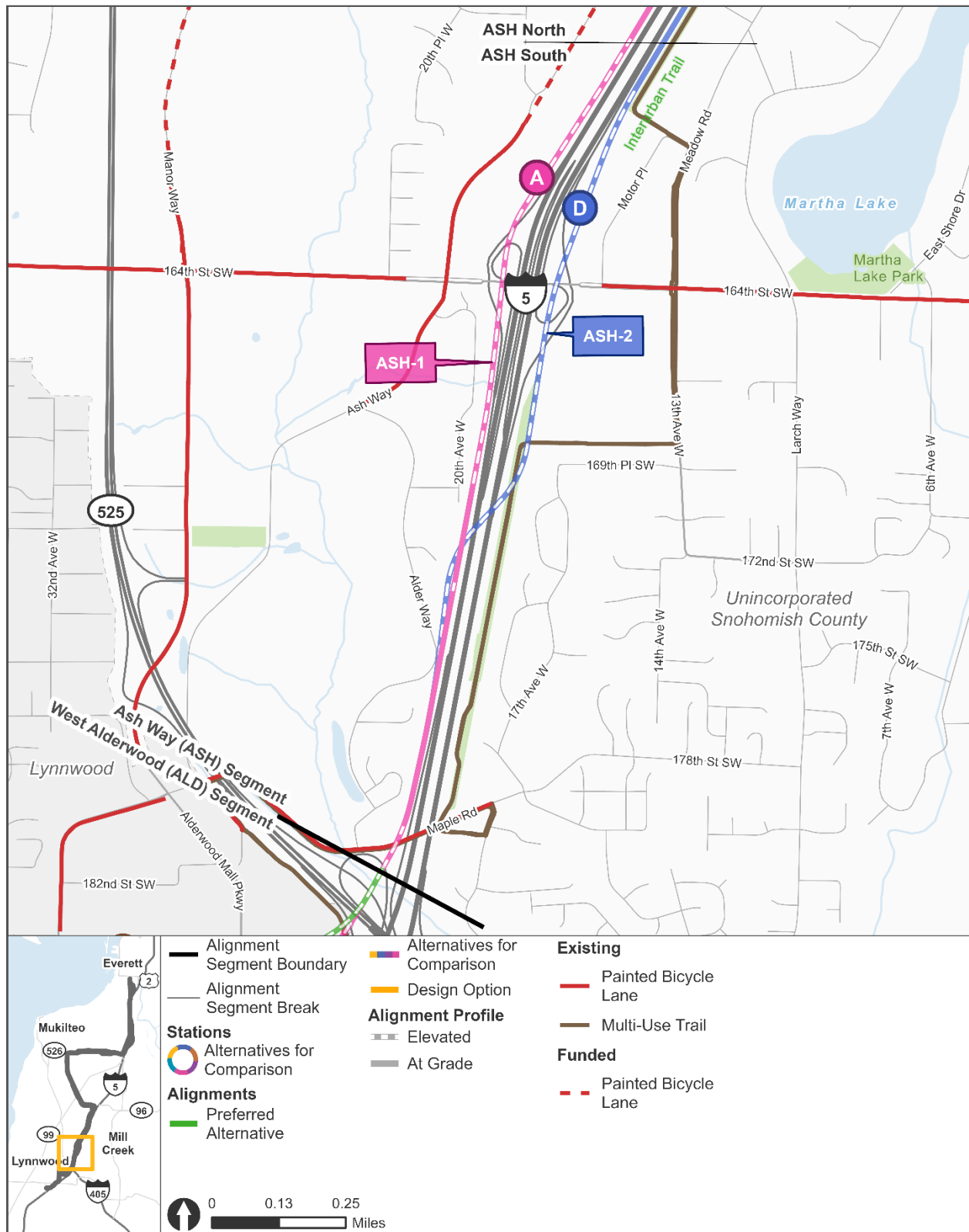


SOURCE: Snohomish County (2023); City of Lynnwood (2023).

### **3.5.2.2 Ash Way Segment**

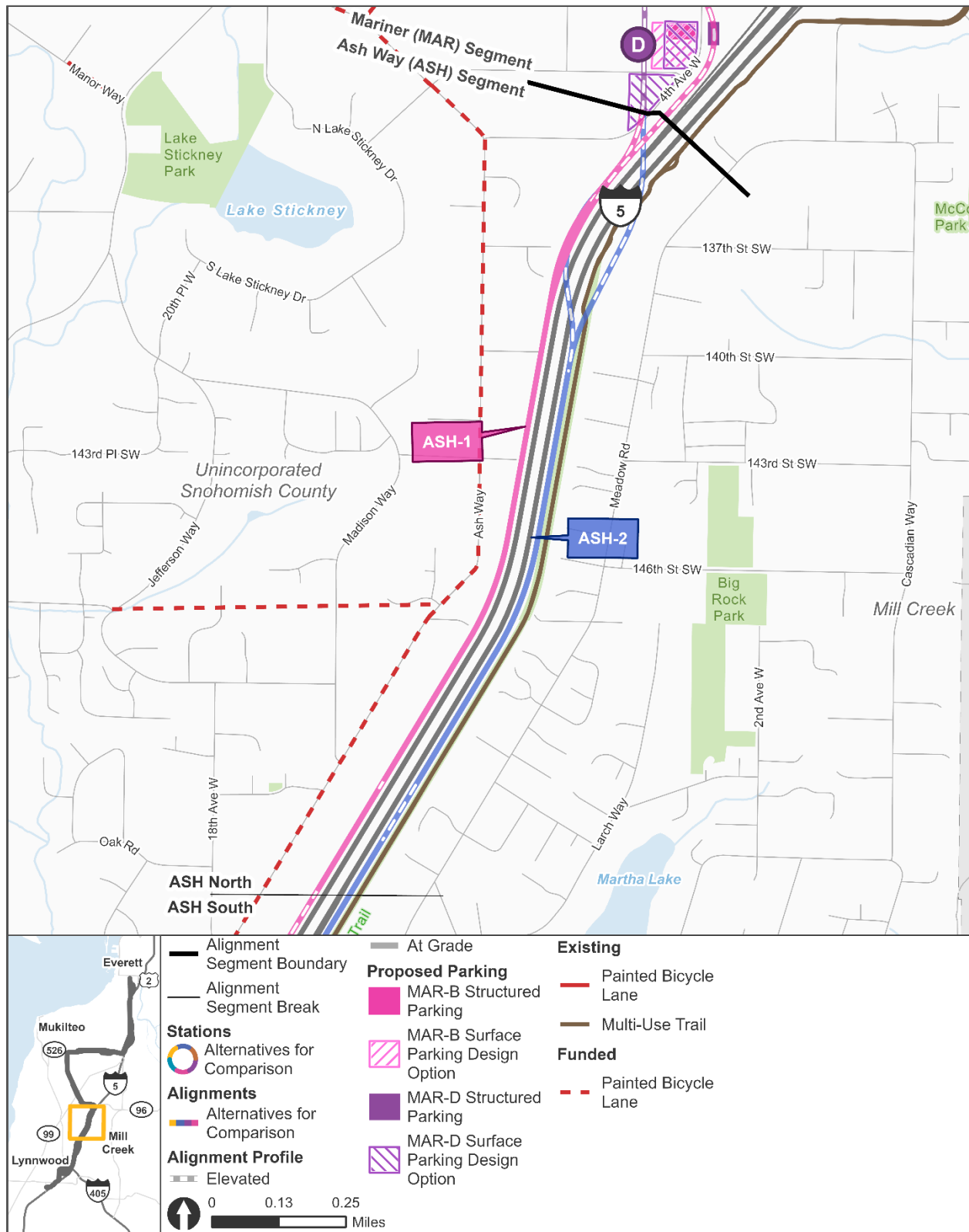
Existing and funded bicycle facilities in the Ash Way Segment are shown in Figure 3-37 and Figure 3-38. In the Ash Way station area, there are bicycle lanes along a majority of 164th Street SW, North Road, and Alderwood Mall Parkway, and a crossing exists over I-5 along Maple Road in the south end of the segment. Portions of Ash Way, Manor Way, and 35th Avenue W also have designated bicycle lanes. The Interurban Trail runs along the east side of I-5, near both station alternatives.

Figure 3-37 Existing and Funded Bicycle Facilities – Ash Way Segment (South)



SOURCE: Snohomish County (2023); City of Lynnwood (2023).

Figure 3-38 Existing and Funded Bicycle Facilities – Ash Way Segment (North)

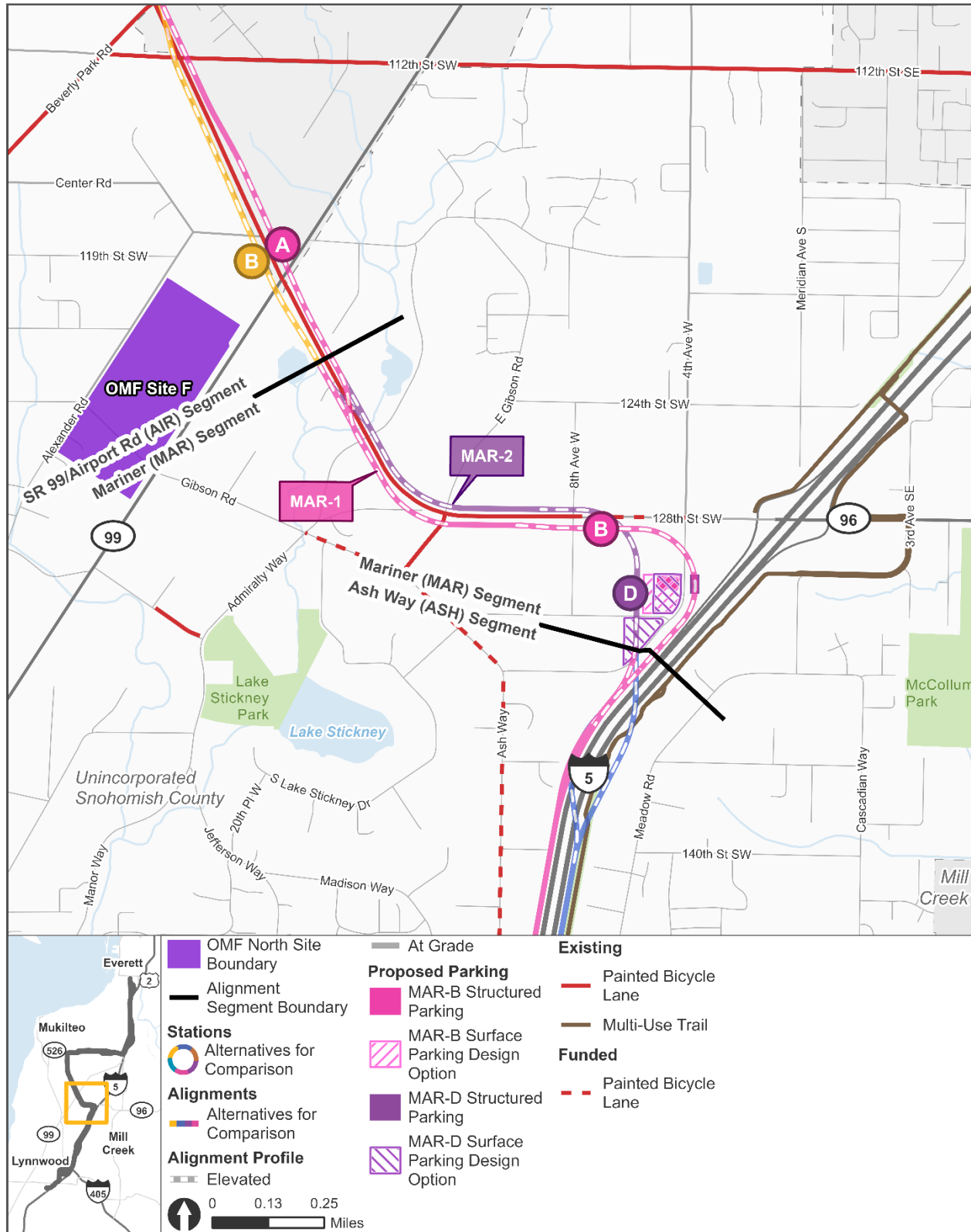


SOURCE: Snohomish County (2023); City of Lynnwood (2023).

### **3.5.2.3 Mariner Segment**

Existing and funded bicycle facilities in the Mariner Segment are shown in Figure 3-39. The primary bicycle lanes in the Mariner Segment exist along Airport Road. Two regional multi-use trails also exist nearby—the Interurban Trail and North Creek Trail. Few bicycle facilities exist near the station area, particularly along 128th Street SE and on the east side of I-5. There are no connections to existing and funded bicycle lanes along 112th Street SW and Ash Way from the Mariner station alternatives.

Figure 3-39 Existing and Funded Bicycle Facilities – Mariner Segment



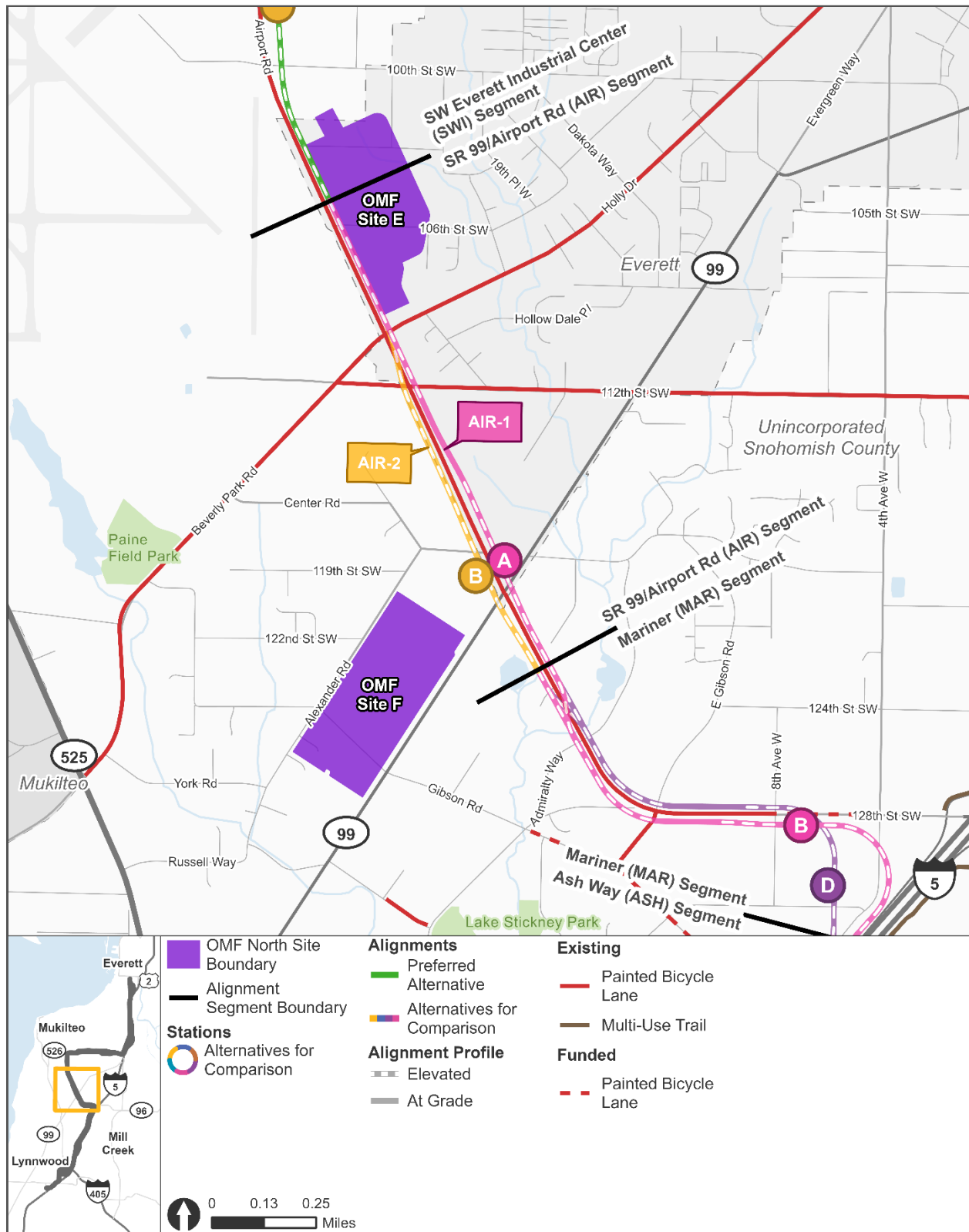
SOURCE: Snohomish County (2023); City of Everett (2023).



#### **3.5.2.4 SR 99/Airport Road Segment**

Existing and funded bicycle facilities in the SR 99/Airport Road Segment are shown in Figure 3-40. Painted bicycle lanes exist along the full extent of Holly Drive, Airport Road, and Beverly Park Road within the segment and along 112th St SW. Neighborhoods on the east and west sides of Airport Road generally do not have bicycle facilities in this segment. SR 99 also has no bicycle facilities.

Figure 3-40 Existing and Funded Bicycle Facilities – SR 99/Airport Road Segment



SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.2.5 SW Everett Industrial Center Segment**

Existing and funded bicycle facilities in the SW Everett Industrial Center Segment are shown in Figure 3-41. Painted bicycle lanes exist along Airport Road throughout the segment with a small portion near Kasch Park Road being bikeable sidewalk. Airport Road bicycle facilities connect to painted bicycle lanes that run along W Casino Road. Residential areas in this segment near Kasch Park and south of Walter E. Hall Park near 100th Street SW do not have bicycle facilities.

**Figure 3-41 Existing and Funded Bicycle Facilities – SW Everett Industrial Center Segment**



SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.2.6 SR 526/Evergreen Segment**

Existing and funded bicycle facilities in the SR 526/Evergreen Segment are shown in Figure 3-42 and Figure 3-43. Most of the streets within this segment do not have bicycle facilities; however, painted bicycle lanes exist along Casino Road, which is the principle east-west local connection, Hardeson/5th Avenue W, and 7th Avenue SE. The Interurban Trail also runs through the east end of this segment as a multi-use trail, painted bicycle lane, and bikeable sidewalk.

**Figure 3-42 Existing and Funded Bicycle Facilities – SR 526/Evergreen Segment (West)**



SOURCE: Snohomish County (2023); City of Everett (2023).

**Figure 3-43 Existing and Funded Bicycle Facilities – SR 526/Evergreen Segment (East)**



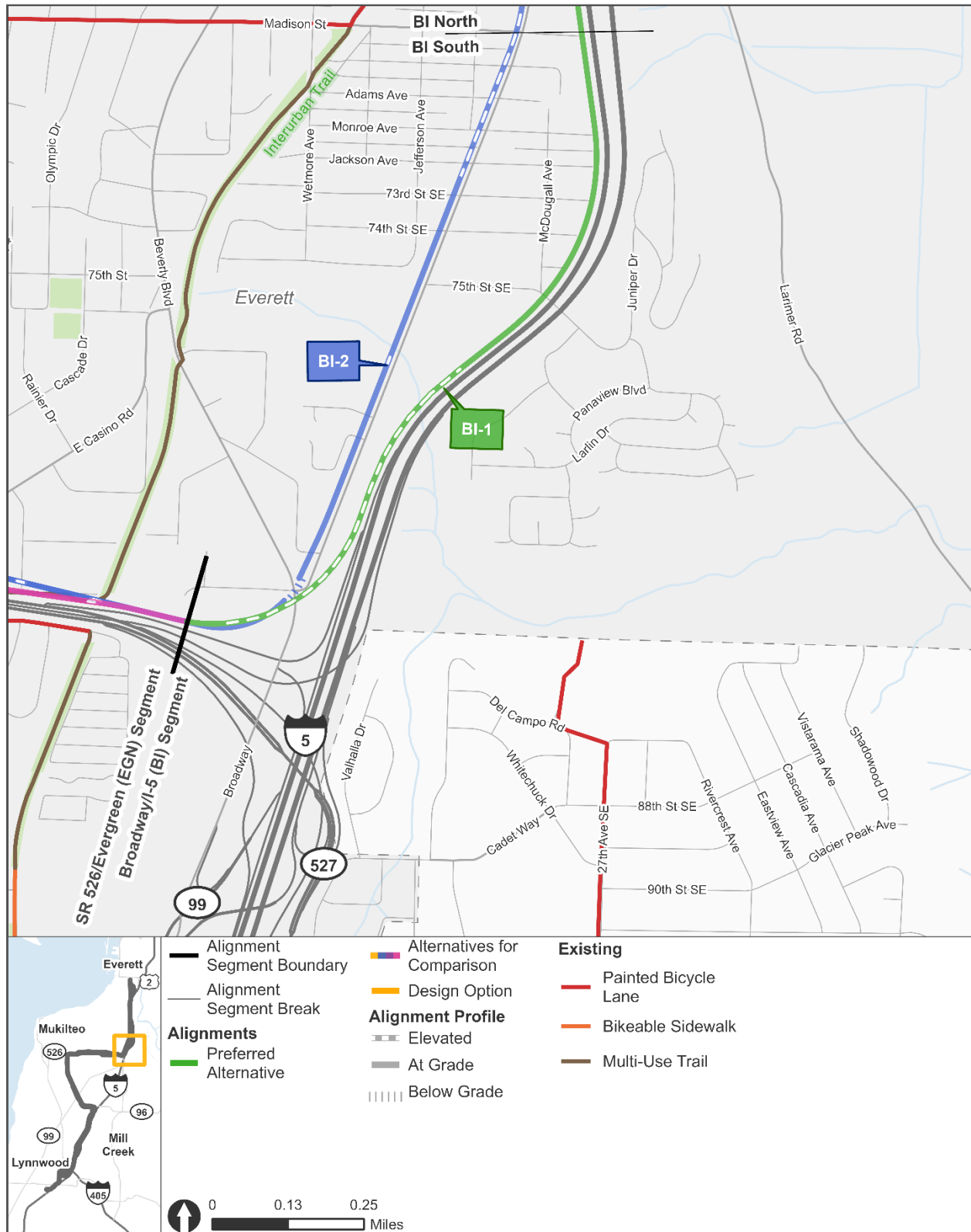
SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.2.7 Broadway/I-5 Segment**

Existing and funded bicycle facilities in the Broadway/I-5 Segment are shown in Figure 3-44 and Figure 3-45. The Interurban Trail serves as the primary existing bicycle facility within the Broadway/I-5 Segment. In the northern portion of the segment, the Interurban Trail merges onto Commercial Avenue SE and becomes a painted bicycle lane. The Lowell Riverfront Trail, a multi-use trail, begins at Rotary Park and runs north along the Snohomish River. Additionally, 27th Avenue SE bicycle and Madison Street west of Commercial Avenue have painted bicycle lanes. The remainder of the segment does not have painted bicycle lanes or any bikeable sidewalks.



**Figure 3-44 Existing and Funded Bicycle Facilities – Broadway/I-5 Segment (South)**



SOURCE: Snohomish County (2023); City of Everett (2023).

**Figure 3-45 Existing and Funded Bicycle Facilities – Broadway/I-5 Segment (North)**

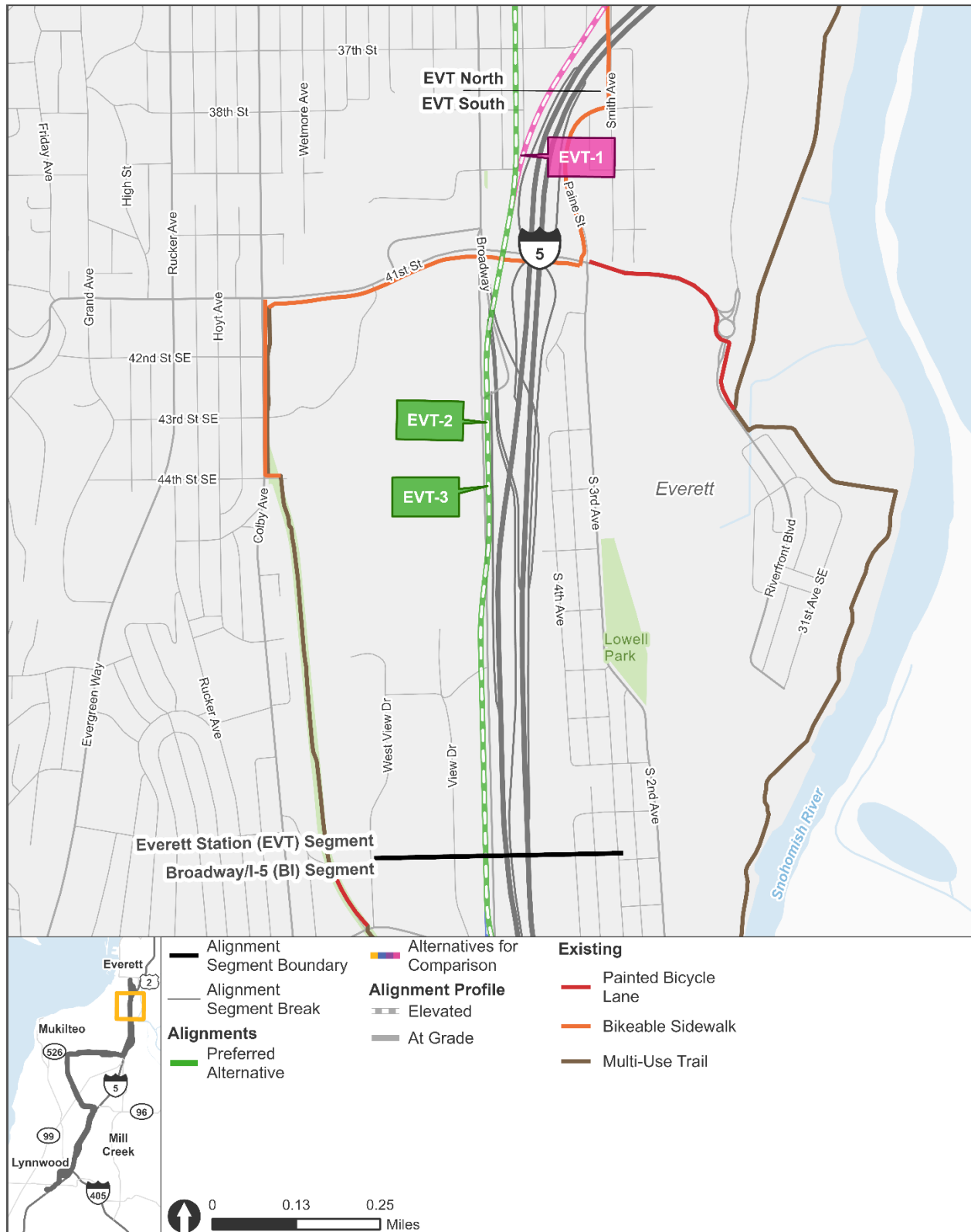


SOURCE: Snohomish County (2023); City of Everett (2023).

### **3.5.2.8 Everett Station Segment**

Existing and funded bicycle facilities in the Everett Station Segment are shown in Figure 3-46 and Figure 3-47. The Interurban Trail ends in the southern part of this segment at 44th Street SE. There is a connection to the Interurban Trail along a bikeable sidewalk on Colby Avenue to 41st Street, which then crosses I-5 with a bikeable sidewalk. The bikeable sidewalk continues north along Paine Street and Smith Avenue, and a painted bicycle lane connects to the Lowell River Trail along the Snohomish River. The bikeable sidewalk on Smith Avenue continues north to the existing Everett Station. There are few other streets in this area with bicycle connections. A portion of 36th Street has a painted bicycle lane, and Hoyt Avenue has a painted bicycle lane north of Wall Street. California Street, just north of the Everett Station alternatives, is the principle east-west connection in downtown Everett.

**Figure 3-46 Existing and Funded Bicycle Facilities – Everett Station Segment (South)**



SOURCE: Snohomish County (2023); City of Everett (2023).

**Figure 3-47 Existing and Funded Bicycle Facilities – Everett Station Segment (North)**



SOURCE: Snohomish County (2023); City of Everett (2023).

### 3.6 Safety

This section discusses current safety-related conditions in the EVLE corridor. The study area includes all roads and intersections within roughly one block or 350 feet of the Build Alternatives to capture any safety impacts from direct changes to the road system from the project. Crash data records were reviewed for roadways in the study area and locations along I-5. Crash data records were collected from the Washington State Department of Transportation (WSDOT) for the five-year period between 2018 and 2022, the most recent available years at the time of analysis, for intersections, roads, highways, and ramps within the study area.

Roadway corridors and intersections potentially affected by the Build Alternatives were summarized and sorted based on collision frequency. In total, there were 109 intersections with collisions recorded during the analysis period. Table 3-32 summarizes the 20 intersections with the highest number of collisions, by severity, within the study area. The majority of collisions were property damage-only collisions. One fatal collision occurred during the study time period at 8th Avenue W and Airport Road.

**Table 3-32 Existing (2018 to 2022) Intersection Crash Analysis Results**

| Intersection                               | Fatal Collision | Serious Injury Collision | Injury Collision | Property Damage Only Collision | Unknown Collisions <sup>a</sup> | Total Collisions |
|--------------------------------------------|-----------------|--------------------------|------------------|--------------------------------|---------------------------------|------------------|
| 164th Street SW and I-5 S on/off ramp      | 0               | 0                        | 14               | 21                             | 0                               | 35               |
| 4th Avenue W and 128th Street SW           | 0               | 0                        | 7                | 25                             | 0                               | 32               |
| Broadway and 37th Street                   | 0               | 2                        | 9                | 18                             | 1                               | 30               |
| E Gibson Road and Airport Road             | 0               | 1                        | 7                | 22                             | 0                               | 30               |
| 4th Avenue W and Airport Road              | 0               | 1                        | 9                | 18                             | 0                               | 28               |
| Airport Road and Holly Drive               | 0               | 2                        | 11               | 14                             | 0                               | 27               |
| Broadway and Pacific Avenue                | 0               | 1                        | 5                | 18                             | 0                               | 24               |
| 164th Street SW and I-5 N on/off ramp      | 0               | 0                        | 5                | 14                             | 0                               | 19               |
| 184th Street SW and Alderwood Mall Parkway | 0               | 0                        | 0                | 17                             | 1                               | 18               |

| Intersection                               | Fatal Collision | Serious Injury Collision | Injury Collision | Property Damage Only Collision | Unknown Collisions <sup>a</sup> | Total Collisions |
|--------------------------------------------|-----------------|--------------------------|------------------|--------------------------------|---------------------------------|------------------|
| 33rd Avenue W and 188th Street SW          | 0               | 0                        | 3                | 14                             | 0                               | 17               |
| 8th Avenue W and Airport Road              | 1               | 0                        | 6                | 10                             | 0                               | 17               |
| Alderwood Mall Boulevard and 33rd Avenue W | 0               | 0                        | 4                | 11                             | 0                               | 15               |
| Broadway and Hewitt Avenue                 | 0               | 0                        | 7                | 8                              | 0                               | 15               |
| Evergreen Way and E Casino Road            | 0               | 0                        | 3                | 12                             | 0                               | 15               |
| Airport Road and Center Road               | 0               | 0                        | 4                | 9                              | 0                               | 13               |
| Airport Road and 112th Street SW           | 0               | 1                        | 5                | 6                              | 0                               | 12               |
| Broadway and 52nd Street SE                | 0               | 0                        | 3                | 9                              | 0                               | 12               |
| Airport Road and 100th Street SW           | 0               | 1                        | 2                | 6                              | 2                               | 11               |
| Alderwood Mall Boulevard and 40th Avenue W | 0               | 1                        | 2                | 8                              | 0                               | 11               |
| Broadway and 36th Street                   | 0               | 1                        | 1                | 7                              | 0                               | 9                |

SOURCE: WSDOT (2022).

NOTE:

- a) Unknown collisions are collisions where injury information was not recorded.

Table 3-33 summarizes the 20 roadway corridors with the highest number of collisions within the study area. In total, there were 62 corridors with collisions recorded during the analysis period. Three of these corridors are limited access facilities: I-405, SR 525, and SR 526. SR 526 had the most total collisions for roads within the study area; however, SR 99 had the highest number of fatal collisions—four.

**Table 3-33 Existing (2018 to 2022) Corridor Crash Analysis Results**

| Corridor                 | Corridor Length (Miles) | Fatal Collision | Serious Injury Collision | Injury Collision | Property Damage Only Collision | Unknown Collisions <sup>a</sup> | Total Collisions |
|--------------------------|-------------------------|-----------------|--------------------------|------------------|--------------------------------|---------------------------------|------------------|
| SR 526                   | 4.47                    | 3               | 3                        | 60               | 202                            | 0                               | 268              |
| Broadway                 | 3.64                    | 1               | 3                        | 47               | 145                            | 5                               | 201              |
| Evergreen Way            | 0.32                    | 0               | 3                        | 46               | 132                            | 0                               | 181              |
| SR 99                    | 0.74                    | 4               | 4                        | 43               | 103                            | 1                               | 155              |
| Airport Road             | 2.88                    | 1               | 2                        | 41               | 91                             | 2                               | 137              |
| 128th Street SW          | 0.59                    | 0               | 1                        | 27               | 78                             | 0                               | 106              |
| 196th Street SW          | 0.18                    | 0               | 1                        | 15               | 77                             | 0                               | 93               |
| 33rd Avenue W            | 0.79                    | 0               | 0                        | 16               | 55                             | 0                               | 71               |
| Alderwood Mall Boulevard | 1.05                    | 0               | 1                        | 12               | 48                             | 0                               | 61               |
| E Casino Road            | 0.58                    | 0               | 1                        | 12               | 44                             | 0                               | 57               |
| 4th Avenue W             | 0.37                    | 1               | 0                        | 3                | 38                             | 2                               | 44               |
| 164th Street SW          | 0.17                    | 0               | 0                        | 6                | 23                             | 0                               | 29               |
| I-405                    | 0.33                    | 0               | 3                        | 6                | 20                             | 0                               | 29               |
| 41st Street              | 0.08                    | 0               | 0                        | 9                | 18                             | 1                               | 28               |
| 184th Street SW          | 0.57                    | 0               | 0                        | 3                | 15                             | 0                               | 18               |
| Alderwood Mall Parkway   | 0.16                    | 0               | 0                        | 3                | 14                             | 0                               | 17               |
| SR 525                   | 0.13                    | 0               | 1                        | 1                | 13                             | 0                               | 15               |
| Beverly Boulevard        | 0.15                    | 0               | 0                        | 2                | 8                              | 0                               | 10               |
| W Casino Road            | 0.34                    | 0               | 2                        | 1                | 5                              | 0                               | 8                |
| McDougall Avenue         | 0.95                    | 0               | 1                        | 0                | 6                              | 0                               | 7                |

SOURCE: WSDOT (2022).

NOTE:

a) Unknown collisions are collisions where injury information was not recorded.

Table 3-34 summarizes collisions along I-5 in the project corridor. For this analysis, the I-5 mainline was split into four segments along the corridor that include both NB and SB crashes. The segment between 44th Avenue W and 164th Street SW had the most collisions during the study period, but the SR 526 to Lowell Road segment had the most fatal collisions. The I-5 on-



and off-ramps are split into NB and SB ramps. The on-ramp from NB I-405 to SB I-5 had the most collisions with 72. None of the I-5 ramps had any fatal collisions during the study period.

**Table 3-34 Existing (2018 to 2022) I-5 Mainline and Ramp Crash Analysis Results**

| Corridor Segment                       | Fatal Collision | Serious Injury Collision | Injury Collision | Property Damage Only Collision | Unknown Collisions <sup>a</sup> | Total Collisions |
|----------------------------------------|-----------------|--------------------------|------------------|--------------------------------|---------------------------------|------------------|
| <b>I-5 North</b>                       |                 |                          |                  |                                |                                 |                  |
| 44th Avenue W to 164th St SW           | 1               | 4                        | 80               | 289                            | 3                               | 377              |
| 164th Street SW to 128th Street SW     | 1               | 4                        | 43               | 131                            | 2                               | 181              |
| SR 526 to Lowell Road                  | 0               | 5                        | 70               | 301                            | 1                               | 377              |
| Lowell Road to 36th Street             | 0               | 1                        | 94               | 325                            | 0                               | 420              |
| <b>I-5 South</b>                       |                 |                          |                  |                                |                                 |                  |
| 44th Avenue W to 164th Street SW       | 0               | 5                        | 81               | 267                            | 1                               | 354              |
| 164th Street SW to 128th Street SW     | 1               | 3                        | 48               | 170                            | 1                               | 223              |
| SR 526 to Lowell Road                  | 3               | 1                        | 43               | 169                            | 1                               | 217              |
| Lowell Road to 36th Street             | 1               | 0                        | 20               | 85                             | 0                               | 106              |
| <b>I-5 Northbound Ramps</b>            |                 |                          |                  |                                |                                 |                  |
| On-Ramp from WB Alderwood Mall Parkway | 0               | 0                        | 0                | 2                              | 0                               | 2                |
| On-Ramp from WB 196th Street SW        | 0               | 0                        | 0                | 5                              | 0                               | 5                |
| Off-Ramp to NB SR 525/SB I-405         | 0               | 0                        | 1                | 8                              | 0                               | 9                |
| Off-Ramp to NB SR 525                  | 0               | 0                        | 8                | 45                             | 5                               | 58               |
| Off-Ramp to SB I-405                   | 0               | 0                        | 3                | 5                              | 0                               | 8                |
| On-Ramp from NB I-405                  | 0               | 0                        | 9                | 42                             | 1                               | 52               |
| On-Ramp from 164th Street SW           | 0               | 0                        | 8                | 17                             | 0                               | 25               |
| Off-Ramp to 164th Street SW            | 0               | 0                        | 6                | 13                             | 0                               | 19               |
| Off-Ramp to 128th Street SE            | 0               | 0                        | 17               | 10                             | 0                               | 17               |

| Corridor Segment                  | Fatal Collision | Serious Injury Collision | Injury Collision | Property Damage Only Collision | Unknown Collisions <sup>a</sup> | Total Collisions |
|-----------------------------------|-----------------|--------------------------|------------------|--------------------------------|---------------------------------|------------------|
| Off-Ramp to SR 526                | 0               | 0                        | 0                | 1                              | 0                               | 1                |
| Off-Ramp to NB Broadway           | 0               | 1                        | 2                | 7                              | 0                               | 10               |
| Off-Ramp to 41st Street           | 0               | 0                        | 4                | 7                              | 1                               | 12               |
| On-Ramp from 41st Street          | 0               | 0                        | 5                | 33                             | 0                               | 38               |
| <b>I-5 Southbound Ramps</b>       |                 |                          |                  |                                |                                 |                  |
| On-Ramp from 196th Street SW      | 0               | 0                        | 1                | 3                              | 0                               | 4                |
| Off-Ramp to EB 196th Street SW    | 0               | 0                        | 3                | 13                             | 0                               | 16               |
| Off-Ramp to WB 196th Street SW    | 0               | 0                        | 5                | 7                              | 0                               | 12               |
| Off-Ramp to EB/WB 196th Street SW | 0               | 0                        | 13               | 26                             | 0                               | 39               |
| On-Ramp from SB SR 525/NB I-405   | 0               | 0                        | 5                | 15                             | 0                               | 20               |
| On-Ramp from SB SR 525            | 0               | 0                        | 3                | 5                              | 0                               | 8                |
| On-Ramp from NB I-405             | 0               | 0                        | 11               | 61                             | 0                               | 72               |
| Off-Ramp to SB I-405              | 0               | 0                        | 1                | 11                             | 0                               | 12               |
| On-Ramp from 164th Street SW      | 0               | 0                        | 1                | 10                             | 0                               | 11               |
| On-Ramp from WB 164th Street SW   | 0               | 0                        | 1                | 10                             | 0                               | 11               |
| Off-Ramp to 164th Street SW       | 0               | 1                        | 3                | 13                             | 1                               | 18               |
| On-Ramp from 128th Street SW      | 0               | 0                        | 1                | 12                             | 1                               | 14               |
| Off-Ramp to SR 526                | 0               | 0                        | 1                | 8                              | 0                               | 9                |
| On-Ramp from SB Broadway          | 0               | 1                        | 6                | 12                             | 0                               | 19               |
| On-Ramp from 41st Street          | 0               | 0                        | 1                | 13                             | 0                               | 14               |

SOURCE: WSDOT (2023).

NOTE:

- a) Unknown collisions are collisions where injury information was not recorded.

### 3.7 Aviation

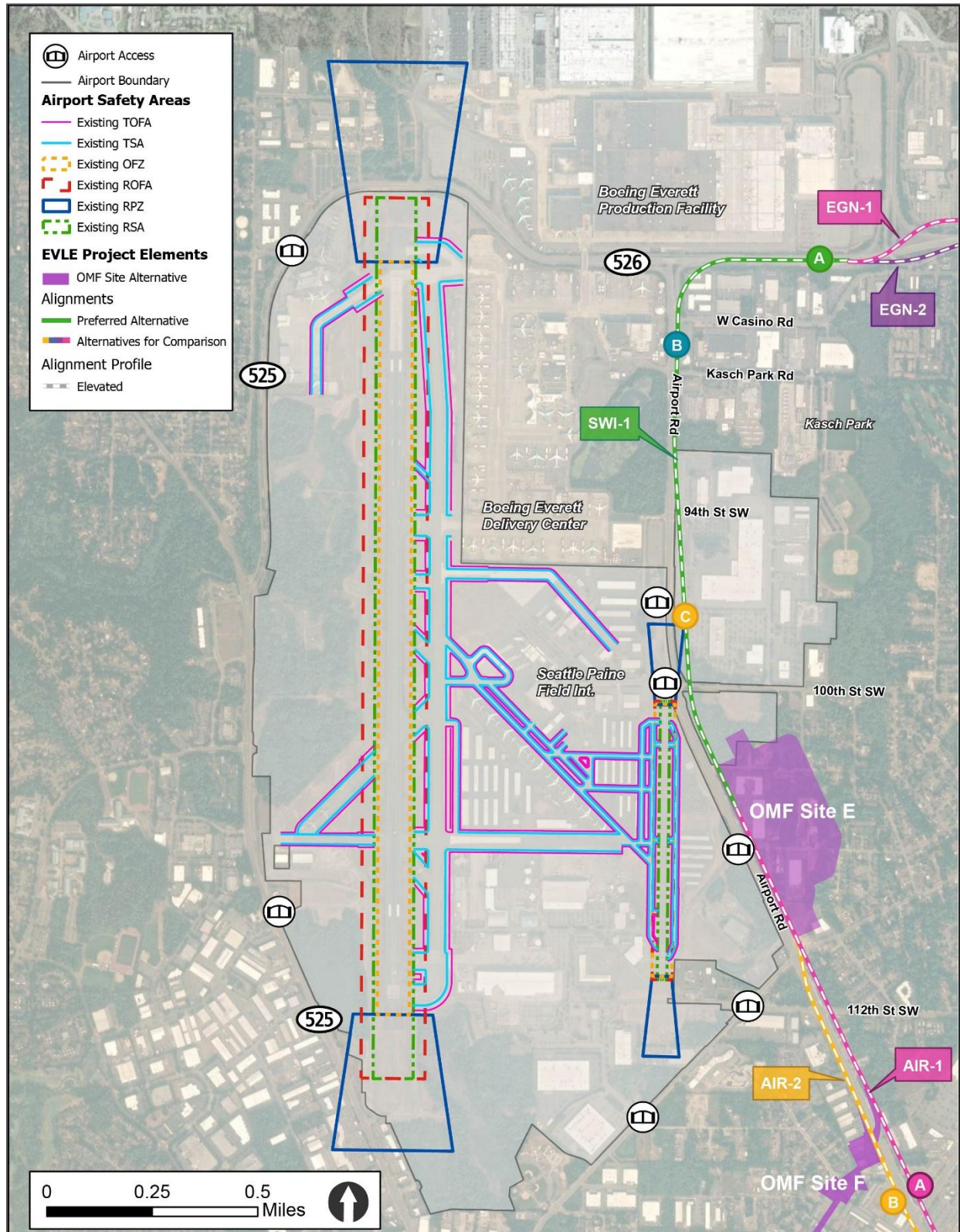
There is one major aviation facility along the EVLE corridor, Paine Field, which is an international airport serving commercial traffic, general aviation, industrial aviation, and freight uses owned and operated by Snohomish County. The facility is located in unincorporated Snohomish County and is closely tied to the Boeing Everett Production Facility and supporting aviation production facilities within the industrial center.

There are several designated areas surrounding the active airport that are federally regulated for safety and must be avoided. The areas are established based on standards outlined in advisory circulars published by the Federal Aviation Administration (FAA). These areas are:

- Runway Safety Area (RSA).
- Runway Object Free Area (ROFA).
- Runway Obstacle Free Zone (OFZ).
- Runway Protection Zone (RPZ).
- Runway Departure Surface.
- Taxiway Object Free Area (TOFA).
- Taxi Safety Area (TSA).

These areas, shown in Figure 3-48, are all protected under requirements from advisory circulars (ACs), primarily *AC 150-5300-13B, Airport Design* (FAA 2024). FAA guidance prohibits new infrastructure crossing through or within the RPZ; any objects introduced into the RPZ are subject to FAA's determination of feasibility of implementation. Considerations for FAA include construction of objects resulting in an increase to approach minimums at runways, the location of constructed objects impacting runway protection zones and safety areas, object free areas and obstacle free zones, and potential impacts to operation of navigable aid facilities due to the transmitting frequency of proposed facilities.

Figure 3-48 Paine Field Regulated Safety Areas



SOURCE: Snohomish County (2024).



The primary entrance to the airport and the passenger terminal is at Airport Road and 100th Street SW. Other entrances to the airport and associated facilities are located around the perimeter as shown in Figure 3-48.

In addition to the designated safety areas listed above, there are federal airspace requirements that must be met for objects constructed surrounding the airport. These airspace surfaces are protected under Title 14 of the Code of Federal Regulations Part 77, referred to as Federal Aviation Regulations (FAR) Part 77. Not all objects that penetrate a FAR Part 77 surface are determined to be an obstruction by the FAA, as some obstructions have mitigating features that can be approved for construction at the proposed height. However, in general, penetrations to the primary or approach surfaces are not approved by the FAA, even with mitigating improvements. For the transitional surface, there is often more leeway in what can be approved.

Airports that have received federal funds are obligated by grant assurance to identify and mitigate hazards to navigable airspace at their airport. Obstacles within the FAR Part 77 surfaces that are not properly mitigated can adversely impact the approach and departure minimums for the airport and the operational procedures.

### 3.8 Freight

The study area for the freight transportation system includes the area within 0.5 miles of the EVLE Build Alternatives, including the facilities and operations for truck and rail transportation. The City of Everett identified preferred truck routes in its 2009 *Freight and Access Mobility Study* (City of Everett 2009); these classifications extend beyond the boundaries of the city.

WSDOT updates freight corridors every two years in its *Freight and Goods Transportation System* (WSDOT 2023), which classifies freight corridors for truck, rail, and waterway based on annual freight tonnage carried. Truck corridors are separated into five classes:

- T-1 – more than 10 million tons per year.
- T-2 – 4 million to 10 million tons per year.
- T-3 – 300,000 to 4 million tons per year.
- T-4 – 100,000 to 300,000 tons per year.
- T-5 – at least 20,000 tons in 60 days and less than 100,000 tons per year.

Rail facilities are described for the Broadway/I-5 and Everett Station Segments (Sections 3.8.7 and 3.8.8). There are no rail facilities within the study area in the other segments. There are no freight waterways in the corridor.

#### 3.8.1 West Alderwood Segment

For the West Alderwood Segment, WSDOT truck routes by classification are shown in Figure 3-49, and WSDOT and City of Everett truck route classifications are listed in Table 3-35. The West Alderwood Segment includes two T-1 truck routes, I-5 and I-405, which are both interstate highways with significant regional freight traffic. This segment also includes several T-3 truck routes.

**Table 3-35 Truck Routes – West Alderwood Segment**

| Street Corridor        | WSDOT Freight Classification | Everett Freight Classification |
|------------------------|------------------------------|--------------------------------|
| I-5                    | T-1                          | Not classified                 |
| I-405                  | T-1                          | Not classified                 |
| 196th Street SW        | T-3                          | Not classified                 |
| 44th Avenue            | T-3                          | Not classified                 |
| Poplar Way             | T-3                          | Not classified                 |
| Alderwood Mall Parkway | T-3                          | Not classified                 |
| 28th Avenue W          | T-3                          | Not classified                 |

SOURCE: WSDOT (2023).

### Figure 3-49 Truck Routes – West Alderwood Segment



SOURCE: WSDOT (2023).

### 3.8.2 Ash Way Segment

For the Ash Way Segment, WSDOT truck routes by classification are shown in Figure 3-50 and Figure 3-51, and WSDOT and City of Everett truck route classifications are listed in Table 3-36. Ash Way includes a large portion of I-5, a T-1 truck route, and a T-2 route, 164th Street SW. There are also several T-3 routes that provide local access and run parallel to I-5.

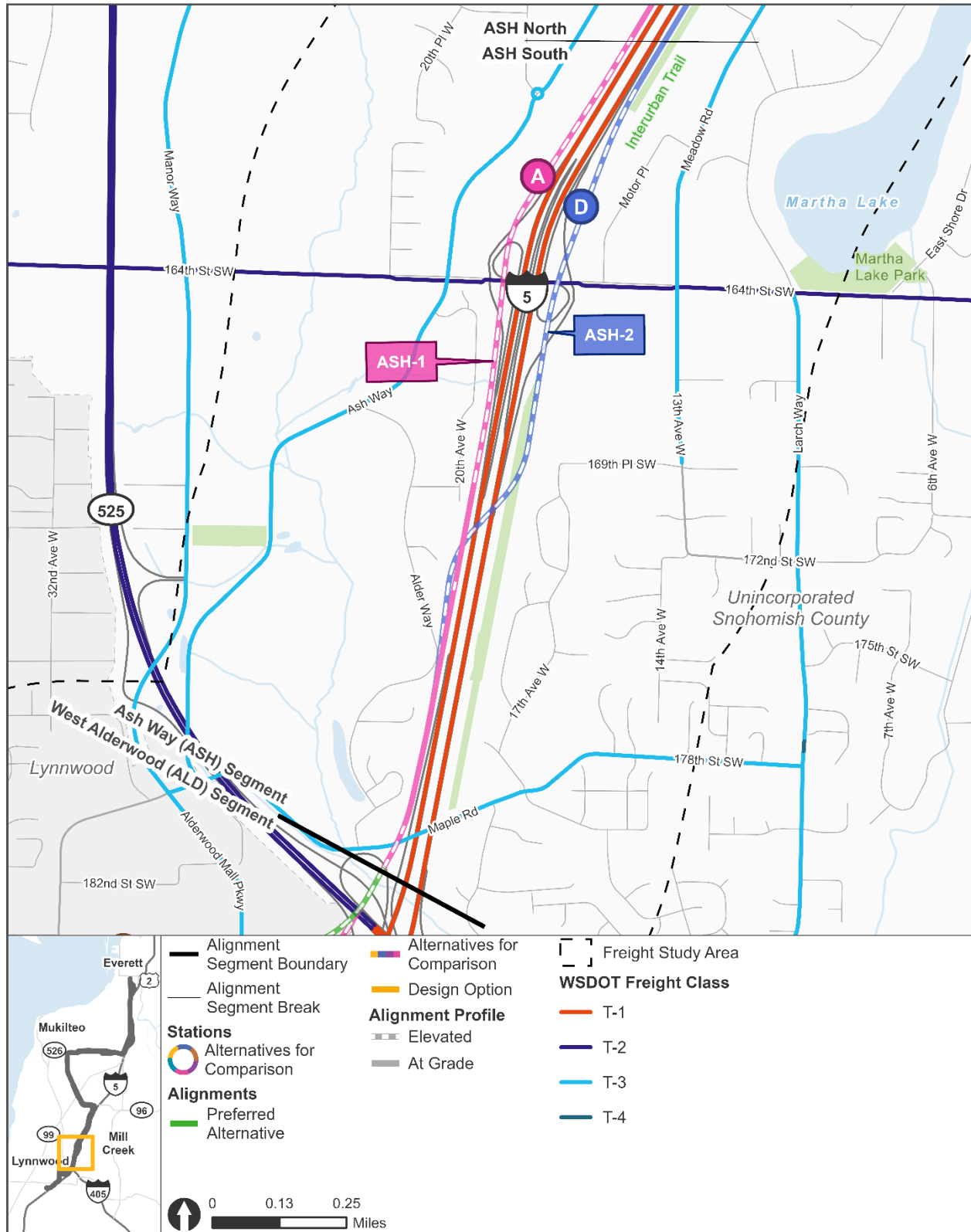
**Table 3-36 Truck Routes – Ash Way Segment**

| Street Corridor | WSDOT Freight Classification | Everett Freight Classification |
|-----------------|------------------------------|--------------------------------|
| I-5             | T-1                          | Not classified                 |
| 164th Street SW | T-2                          | Not classified                 |
| Ash Way         | T-3                          | Not classified                 |
| Maple Road      | T-3                          | Not classified                 |
| Meadow Road     | T-3                          | Not classified                 |

SOURCE: WSDOT (2023).

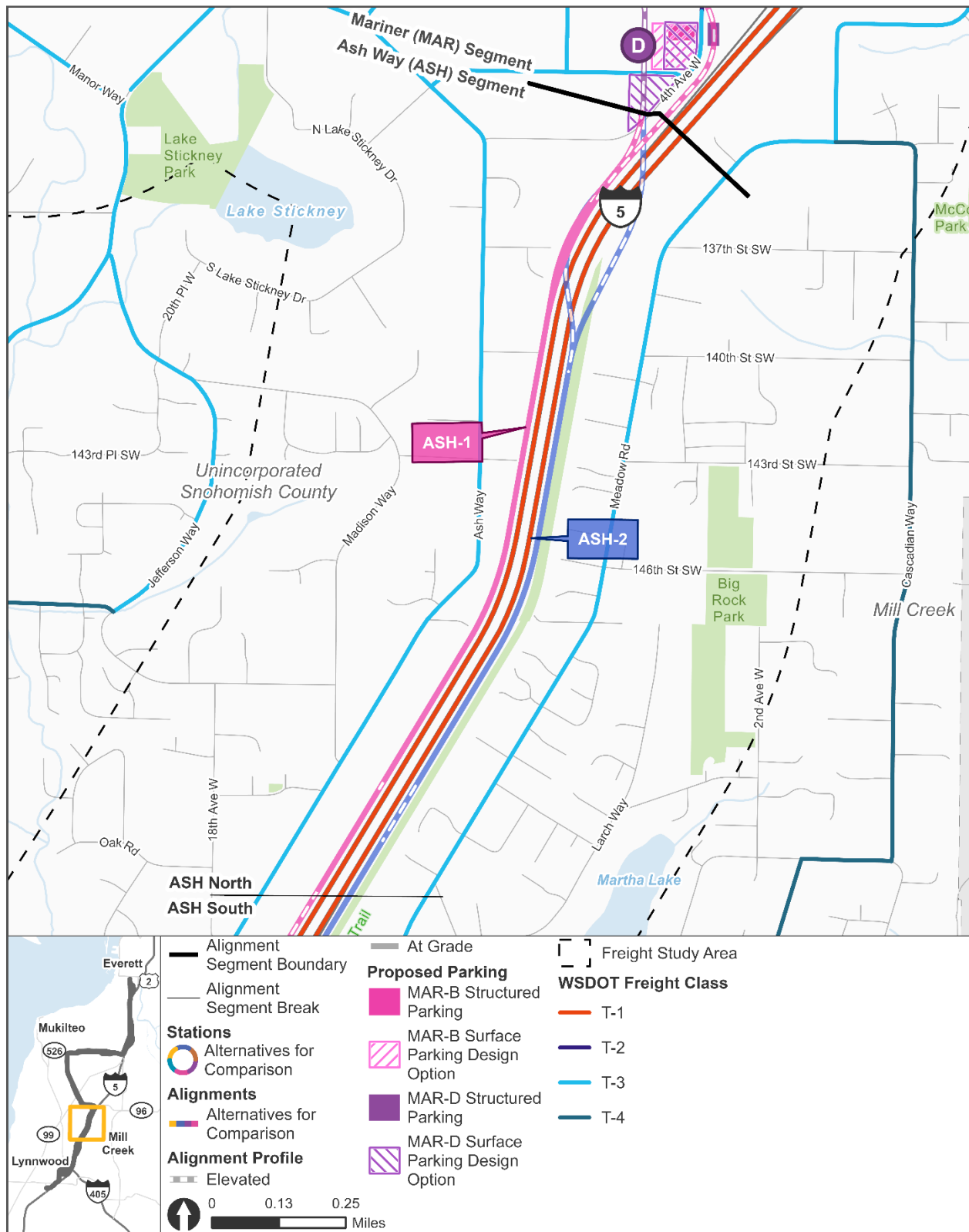


Figure 3-50 Truck Routes – Ash Way Segment (South)



SOURCE: WSDOT (2023).

Figure 3-51 Truck Routes – Ash Way Segment (North)



SOURCE: WSDOT (2023).

### 3.8.3 Mariner Segment

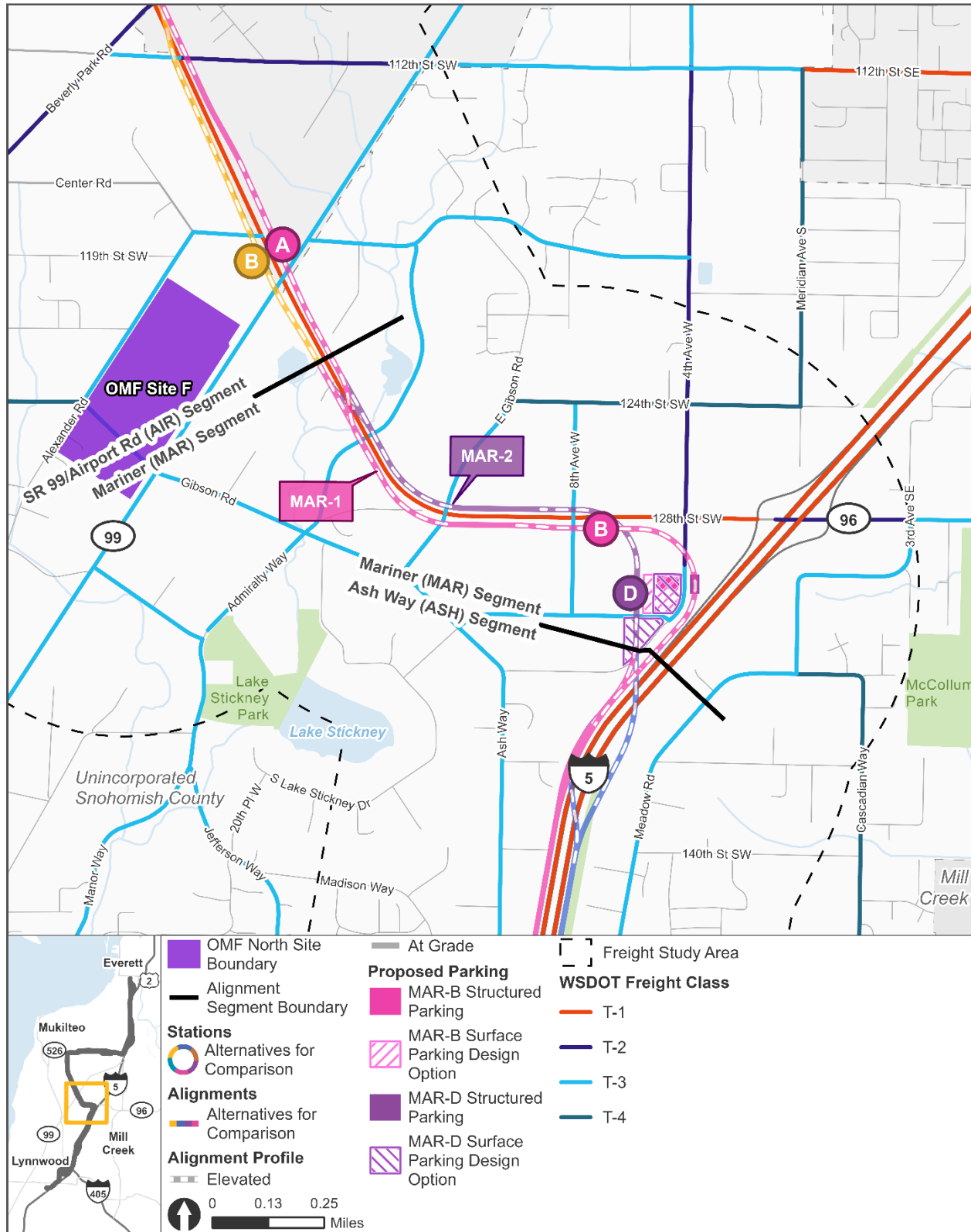
For the Mariner Segment, WSDOT truck routes by classification are shown in Figure 3-52, and WSDOT and City of Everett truck route classifications are listed in Table 3-37. The Mariner Segment includes a section of I-5, which is classified as a T-1 truck route by WSDOT. The segment includes another T-1 truck route, 128th Street SW, which connects the Paine Field/Boeing Everett Production Facility to I-5 and is designated as a truck route by the City of Everett. 4th Avenue is a T-2 truck that runs north-south in the segment. The segment also includes several T-3 truck routes and one T-4 truck route.

**Table 3-37 Truck Routes – Mariner Segment**

| Street Corridor   | WSDOT Freight Classification | Everett Freight Classification |
|-------------------|------------------------------|--------------------------------|
| I-5               | T-1                          | Not classified                 |
| 128th Street SW   | T-1                          | Truck Route                    |
| 4th Avenue W      | T-2                          | Not classified                 |
| 8th Avenue W      | T-3                          | Not classified                 |
| 130th Street SW   | T-3                          | Not classified                 |
| E Gibson Road     | T-3                          | Not classified                 |
| Meridian Avenue S | T-3                          | Not classified                 |
| Gibson Road       | T-3                          | Not classified                 |
| Admiralty Way     | T-3                          | Not classified                 |
| 124th Street SW   | T-4                          | Not classified                 |

SOURCE: WSDOT (2023); City of Everett (2009).

Figure 3-52 Truck Routes – Mariner Segment



SOURCE: WSDOT (2023).

### 3.8.4 SR 99/Airport Road Segment and OMF Site F

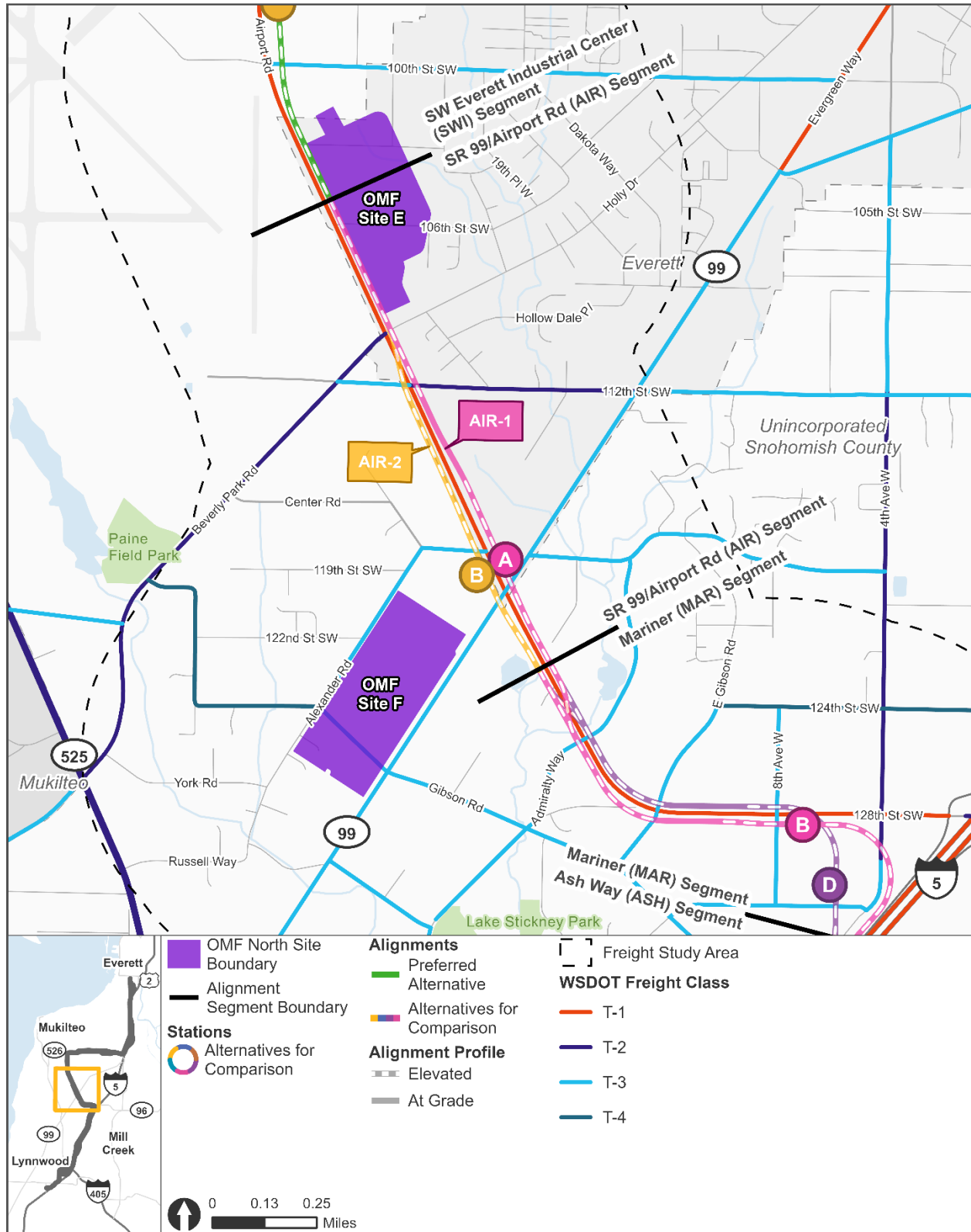
For the SR 99/Airport Road Segment and near OMF Site F, WSDOT truck routes by classification are shown in Figure 3-53, and WSDOT and City of Everett truck route classifications are listed in Table 3-38. This portion of the study area includes the T-1 truck route, Airport Road, which connects the Paine Field/Boeing Everett Manufacturing Industrial Center to I-5 and is designated as a truck route by the City of Everett. 112th Street SW and Beverly Park Road are classified as T-2 truck routes. SR 99 is classified as a T-3 truck route by WSDOT and is designated as a truck route by the City of Everett.

**Table 3-38 Truck Routes – SR 99/Airport Road Segment and OMF Site F**

| Street Corridor   | WSDOT Freight Classification | Everett Freight Classification |
|-------------------|------------------------------|--------------------------------|
| Airport Road      | T-1                          | Truck Route                    |
| 112th Street SW   | T-2                          | Not classified                 |
| Beverly Park Road | T-2                          | Not classified                 |
| SR 99             | T-3                          | Truck Route                    |
| Gibson Road       | T-3                          | Not classified                 |
| Alexander Road    | T-3                          | Not classified                 |
| Center Road       | T-3                          | Not classified                 |

SOURCE: WSDOT (2023); City of Everett (2009).

Figure 3-53 Truck Routes – SR 99/Airport Road Segment and OMF Site F



SOURCE: WSDOT (2023).

### 3.8.5 SW Everett Industrial Center Segment and OMF Site E

For the SW Everett Industrial Segment and near OMF Site E, WSDOT truck routes by classification are shown in Figure 3-54, and WSDOT and City of Everett truck route classifications are shown in Table 3-39. This portion of the study area passes through the Paine Field/Boeing Everett Manufacturing/Industrial Center, which is a PSRC-designated employment center with intensive manufacturing and industrial land uses, including the Boeing Everett Production Facility and supporting industries. The T-1 truck routes, Airport Road and Seaway Boulevard, both provide access to the manufacturing/industrial center and are also identified as truck routes by the City of Everett. SR 526 is designated as a T-2 truck by WSDOT and a truck route by the City of Everett and connects the manufacturing/industrial center to I-5. This portion of the study area also includes the T-3 truck route, 100th Street SW.

**Table 3-39 Truck Routes – SW Everett Industrial Center Segment and OMF Site E**

| Street Corridor  | WSDOT Freight Classification | Everett Freight Classification |
|------------------|------------------------------|--------------------------------|
| Airport Road     | T-1                          | Truck Route                    |
| Seaway Boulevard | T-1                          | Truck Route                    |
| SR 526           | T-2                          | Truck Route                    |
| 100th Street SW  | T-3                          | Not classified                 |

SOURCE: WSDOT (2023); City of Everett (2009).

**Figure 3-54 Truck Routes – SW Everett Industrial Center Segment and OMF Site E**



SOURCE: WSDOT (2023).



### 3.8.6 SR 526/Evergreen Segment and OMF Site B

For the SR 526/Evergreen Segment and near OMF Site B, WSDOT truck routes by classification are shown in Figure 3-55 and Figure 3-56, and WSDOT and City of Everett truck route classifications are listed in Table 3-40. This portion of the study area includes a section of I-5 as well as a section of Evergreen Way, both of which are designated as T-1 truck routes by WSDOT. SR 526 is designated as a T-2 truck route in this area. All three roads are identified as truck routes by the City of Everett.

**Table 3-40 Truck Routes – SR 526/Evergreen Segment and OMF Site B**

| Street Corridor | WSDOT Freight Classification | Everett Freight Classification |
|-----------------|------------------------------|--------------------------------|
| I-5             | T-1                          | Truck Route                    |
| Evergreen Way   | T-1                          | Truck Route                    |
| SR 526          | T-2                          | Truck Route                    |

SOURCE: WSDOT (2023); City of Everett (2009).

**Figure 3-55 Truck Routes – SR 526/Evergreen Segment (West) and OMF Site B**



SOURCE: WSDOT (2023).

Figure 3-56 Truck Routes – SR 526/Evergreen Segment (East)



SOURCE: WSDOT (2023).

### 3.8.7 Broadway/I-5 Segment

For the Broadway/I-5 Segment, WSDOT truck routes by classification are shown in Figure 3-57 and Figure 3-58, and WSDOT and City of Everett truck route classifications are listed in Table 3-41. This segment parallels I-5, which is designated as a T-1 truck route by WSDOT. This portion of the study area also includes the T-3 truck routes Lenora Street, Larimer Road, and S 2nd Avenue. The part of Broadway in this segment is not classified by WSDOT as a truck freight route, but it is identified as a truck route by the City of Everett.

**Table 3-41 Truck Routes – Broadway/I-5 Segment**

| Street Corridor | WSDOT Freight Classification | Everett Freight Classification |
|-----------------|------------------------------|--------------------------------|
| I-5             | T-1                          | Truck Route                    |
| S 2nd Avenue    | T-3                          | Not classified                 |
| Larimer Road    | T-3                          | Not classified                 |
| Lenora Street   | T-3                          | Not classified                 |
| Broadway        | Not classified               | Truck Route                    |

SOURCE: WSDOT (2023); City of Everett (2009).

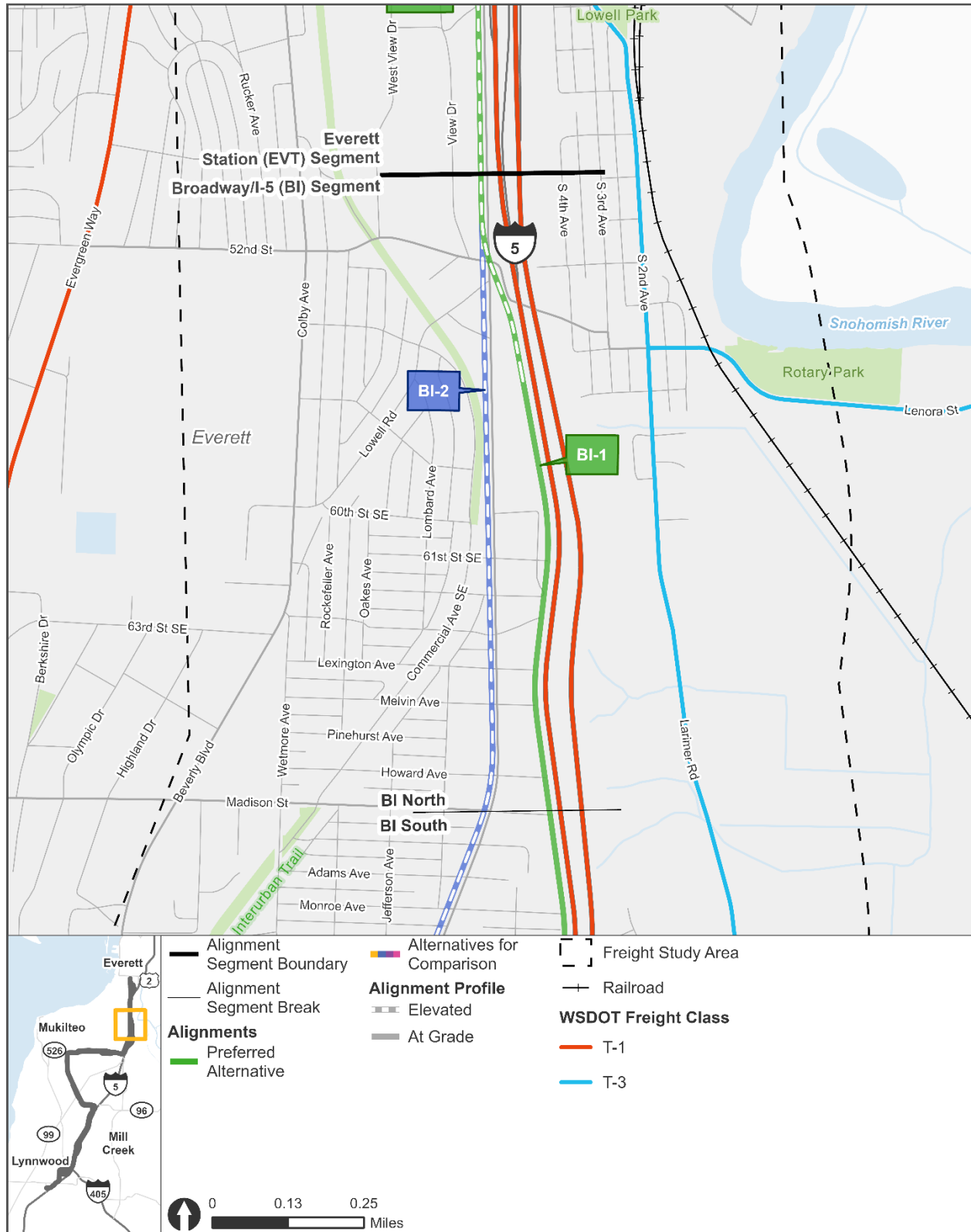
A small portion of BNSF mainline track is within the Broadway/I-5 Segment, including an at-grade crossing at Lenora Street (see Figure 3-58).

Figure 3-57 Truck Routes – Broadway/I-5 Segment (South)



SOURCE: WSDOT (2023).

Figure 3-58 Truck Routes and Rail Lines – Broadway/I-5 Segment (North)



SOURCE: WSDOT (2023).

### 3.8.8 Everett Station Segment

For the Everett Station Segment, WSDOT truck routes by classification are shown in Figure 3-59 and Figure 3-60, and WSDOT and City of Everett truck route classifications are listed in Table 3-42. The Everett Station Segment includes a large concentration of light industrial uses as well as connections to the nearby Port of Everett and surrounding industrial areas north of downtown Everett. I-5, 41st Street, and Broadway north of 41st Street are classified as T-1 truck routes by WSDOT and are identified as truck routes by the City of Everett. Pacific Avenue is classified as a T-2 truck route and is identified as a truck route by the City of Everett. It connects I-5 to downtown Everett and the industrial areas near Everett Station. S 2nd Avenue provides access to the east side of I-5 and is designated as a T-3 truck route by WSDOT. SR 529 is designated as a T-3 truck route by WSDOT and is identified as a truck by the City of Everett. It connects I-5 to downtown Everett and ultimately the Port of Everett.

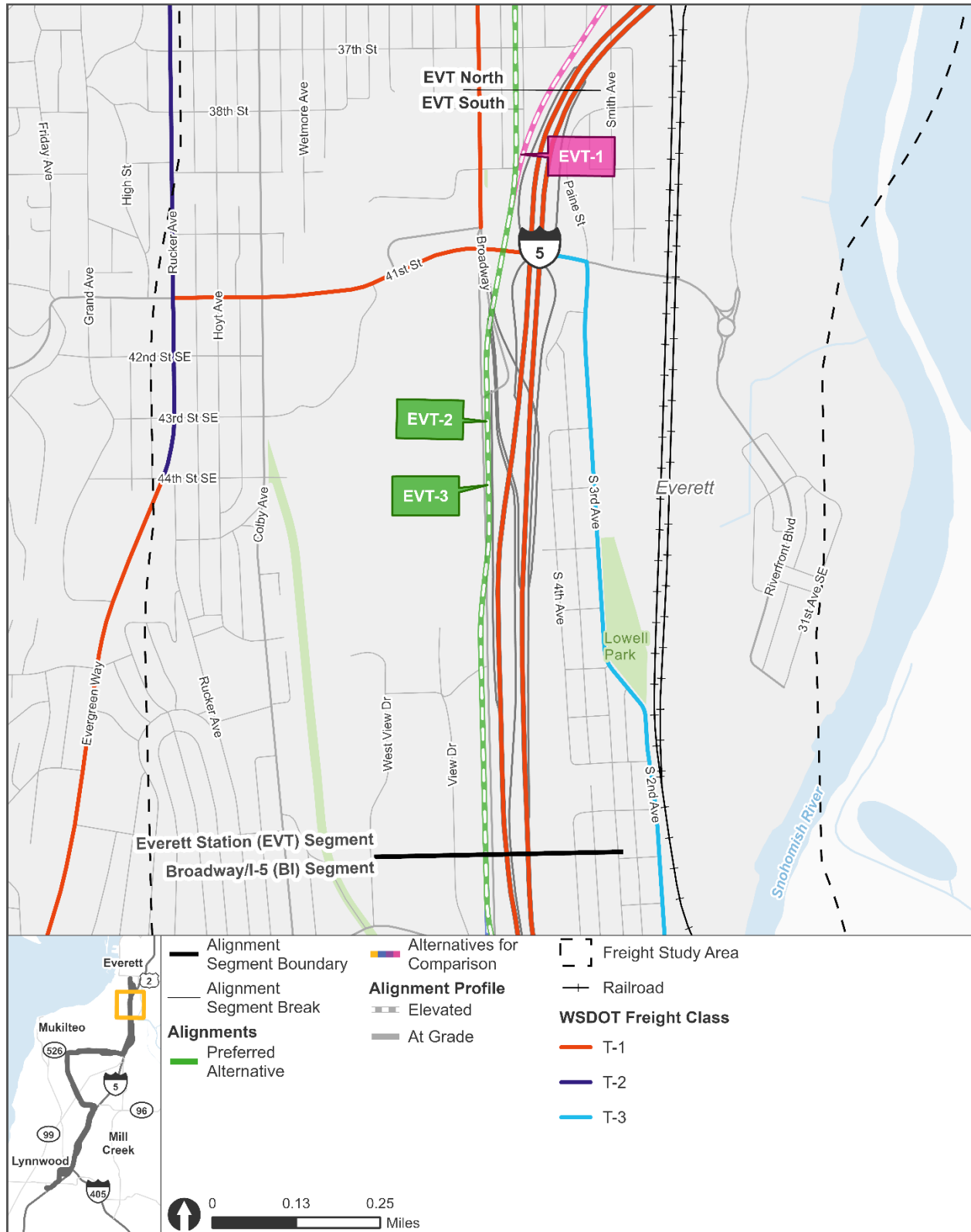
**Table 3-42 Truck Routes – Everett Station Segment**

| Street Corridor | WSDOT Freight Classification | Everett Freight Classification |
|-----------------|------------------------------|--------------------------------|
| I-5             | T-1                          | Truck Route                    |
| 41st Street     | T-1                          | Truck Route                    |
| Broadway        | T-1                          | Truck Route                    |
| Pacific Avenue  | T-2                          | Truck Route                    |
| S 2nd Avenue    | T-3                          | Not classified                 |
| SR 529          | T-3                          | Truck Route                    |

SOURCE: WSDOT (2023); City of Everett (2009).

In addition to truck routes, the Everett Station Segment includes significant rail infrastructure. The BNSF Chicago mainline runs between I-5 and the Snohomish River in the southern part of the segment. The line splits near 36th Street with one line going north to BNSF's Delta Yard in north Everett and another crossing under I-5. This line provides access to Everett Station and turns west at Hewitt Avenue before tunneling under downtown Everett to access the Port of Everett and BNSF's Seattle mainline on the west side of the city. There are currently no at-grade rail crossings in the segment. There are several grade-separated crossings in this segment: 41st Street, I-5, Pacific Avenue, Hewitt Avenue, Broadway, Lombard Avenue, and Oakes Avenue.

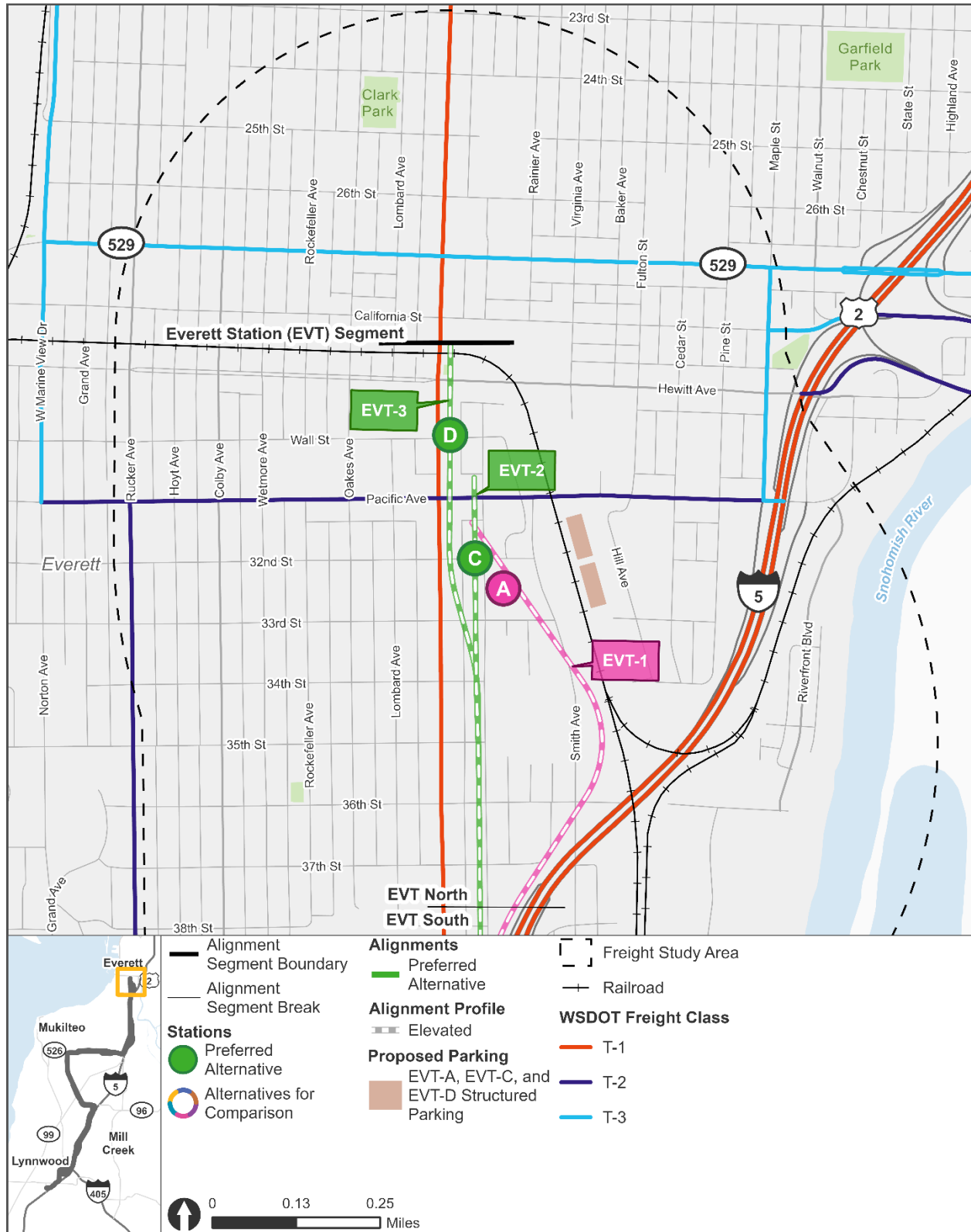
Figure 3-59 Truck Routes and Rail Lines – Everett Station Segment (South)



SOURCE: WSDOT (2023).



Figure 3-60 Truck Routes and Rail Lines – Everett Station Segment (North)



SOURCE: WSDOT (2023).

## 4 OPERATIONAL IMPACTS

### 4.1 Regional Transportation Network

Regional travel patterns, including projected vehicle forecasts, regional travel, traffic congestion, and person mode of travel, are discussed in this section. Highway and arterial traffic forecasts were developed using the PSRC regional model (2018 baseline).

#### 4.1.1 Build Alternatives

This section discusses regional transportation conditions in years 2037 and 2046. Because changes in regional measures (e.g., VMT, VHT, and VHD) and corridor-level measures at the screenlines (e.g., vehicles per hour) would be similar between project alternatives, the analysis results represent all project alternatives (collectively referred to as the Build Alternatives) compared to the No Build Alternative.

The definition of the Build Alternatives in year 2046 includes operation of a light rail line from Alaska Junction Station in West Seattle to Everett Station and from Downtown Redmond Station to Mariner Station, as described in Chapter 2 of the Draft EIS. The definition of the initial phase of the Build Alternatives in year 2037 only includes light rail service as far north as the SW Everett Industrial Center Station, discussed in Section 1.1.

##### 4.1.1.1 Vehicle Miles Traveled and Vehicle Hours Traveled

Table 4-1 and Table 4-2 shows the average daily VMT, VHT, and VHD for the No Build Alternative and Build Alternatives for the 2037 initial phase and in year 2046. With the extension of light rail north to Everett, regional VMT is expected to decrease by approximately 928,200 miles on a typical weekday in 2046 compared with the No Build Alternative because some regional automobile trips are expected to shift to light rail with the EVLE Project. Forecast VHT is expected to decrease by 52,200 hours per day regionally with the full build out of the EVLE Project in 2046 while forecast VHD is expected to decrease by 22,100 hours per day regionally.

**Table 4-1 2037 Weekday Daily VMT, VHT, and VHD**

| Alternative          | VMT        | VHT       | VHD     |
|----------------------|------------|-----------|---------|
| No Build Alternative | 99,178,000 | 3,201,500 | 487,100 |
| Build Alternatives   | 98,411,300 | 3,161,000 | 470,300 |
| Change (#)           | -766,700   | -40,500   | -16,800 |
| Change (%)           | -0.77%     | -1.27%    | -3.45%  |

SOURCE: PSRC (2024).

**Table 4-2 2046 Weekday Daily VMT, VHT, and VHD**

| Alternative          | VMT         | VHT       | VHD     |
|----------------------|-------------|-----------|---------|
| No Build Alternative | 104,915,900 | 3,473,500 | 580,900 |
| Build Alternatives   | 103,987,700 | 3,421,300 | 558,800 |
| Change (#)           | -928,200    | -52,200   | -22,100 |
| Change (%)           | -0.88%      | -1.50%    | -3.80%  |

SOURCE: PSRC (2024).

#### 4.1.1.2 Facility Screenline Traffic Volume Projections

The PM peak hour and daily traffic volumes for five screenline locations within the study area were analyzed to understand the relative differences in travel between the No Build and Build Alternatives. Screenline volumes are summarized in Table 4-3 and Table 4-4. Traffic volumes in 2040 and 2050 are reported to represent the initial phase condition in 2037 and the full build condition in 2046. When light rail is extended to Everett, some vehicle trips would shift to transit due to increasing congestion and the reliability and convenience of rail service. Daily traffic volumes are expected to decrease at all five screenline locations in the 2037 initial phase condition, but PM peak hour volumes would slightly increase on I-5 at 44th Avenue W and I-405. Daily traffic volumes are expected to decrease modestly at all five screenline locations and decrease at most screenline locations during the PM peak hour in the full build condition.

**Table 4-3 2040 PM Peak Hour/Daily Screenline Performance**

| Screenline (Direction)  | PM Peak Hour      |                             | Daily             |                             |
|-------------------------|-------------------|-----------------------------|-------------------|-----------------------------|
|                         | No Build Vehicles | Build Alternatives Vehicles | No Build Vehicles | Build Alternatives Vehicles |
| I-5 at 44th Ave W       | 21,795            | 21,879                      | 287,901           | 286,579                     |
| I-5 at I-405            | 19,727            | 19,853                      | 255,295           | 254,614                     |
| I-5 at 128th Street SE  | 25,291            | 25,143                      | 329,608           | 326,629                     |
| I-5 at SR 526           | 17,852            | 17,770                      | 223,434           | 221,874                     |
| SR 526 at Evergreen Way | 5,181             | 5,173                       | 67,442            | 65,886                      |

SOURCE: PSRC (2024).

**Table 4-4 2050 PM Peak Hour/Daily Screenline Performance**

| Screenline (Direction)  | PM Peak Hour      |                             | Daily             |                             |
|-------------------------|-------------------|-----------------------------|-------------------|-----------------------------|
|                         | No Build Vehicles | Build Alternatives Vehicles | No Build Vehicles | Build Alternatives Vehicles |
| I-5 at 44th Ave W       | 23,062            | 22,887                      | 305,214           | 302,487                     |
| I-5 at I-405            | 20,781            | 20,897                      | 270,221           | 268,067                     |
| I-5 at 128th Street SE  | 27,106            | 26,786                      | 352,488           | 346,587                     |
| I-5 at SR 526           | 18,994            | 19,004                      | 238,406           | 236,301                     |
| SR 526 at Evergreen Way | 5,747             | 5,612                       | 71,146            | 69,608                      |

SOURCE: PSRC (2024).

#### 4.1.1 No Build Alternative

The No Build Alternative describes the environment, including the transportation system, as it would exist in 2046 without the proposed project. No Build improvements include roadway and transit actions by state, regional, and local agencies that are currently funded, and those that are likely to be implemented based on approved and committed funding.

These reasonably foreseeable projects and transit service changes were incorporated into the transportation analysis for the 2046 No Build and Build Alternatives and include both regionally noteworthy projects (e.g., Link Light Rail Extensions and US 2 Trestle Widening) and specific local transportation improvement projects.

Listed below in Table 4-5 are key future transportation improvement project assumptions in the vicinity of the EVLE alternatives for both the No Build and all Build Alternatives. Projects noted as being included in the intersection analysis are planned to have direct changes to channelization or intersection control to study intersections. Projects noted as “N/A” either are not planned to have a direct change to channelization or intersection control or are transit and/or non-motorized projects that are not planned to have a direct impact on vehicular capacity at study intersections.

The only change to the transportation network included for the Build Alternative analysis compared with the No Build Alternative analysis is the EVLE Project itself and any associated multimodal transportation improvements in station areas.

Under the No Build Alternative, light rail would be extended to Lynnwood City Center and new light rail lines would be constructed to Redmond, Tacoma, West Seattle, and Ballard in Seattle. However, without OMF North and the connecting EVLE guideway, Sound Transit system operations would also be impacted. Without the storage and maintenance facilities for 150 LRVs at OMF North, other planned ST3 light rail extensions would have reduced operational ability and flexibility. Overall fleet size would likely need to be reduced due to reduced storage capacity, which would impact service frequency across the network, and vehicles would have to be dispatched from elsewhere in the system, affecting service start/end times and operational efficiency.

**Table 4-5 Key Future Transportation Improvement Projects – Transit and Roadway**

| Location                                                       | Sponsor          | Project Description                                                                                                                                                                      | Included in Regional Travel Demand Model | Included in Intersection Analysis |
|----------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|
| 128th Street SW/Airport Road Widening<br>From SR 99 to SR 96   | Snohomish County | Widen roadway to increase vehicle capacity. Implement speed and reliability improvements for Community Transit Swift Bus Rapid Transit (BRT).                                            | Yes                                      | Yes                               |
| 164th Street SE/SW Widening<br>From 35th Ave W to SR 527       | Snohomish County | Widen roadway to increase vehicle capacity, add a dedicated transit, bike, and pedestrian crossing of I-5. Implement speed and reliability improvements for Community Transit Swift BRT. | Yes                                      | Yes                               |
| Evergreen Way Transit High-Occupancy Vehicle (HOV) Treatments  | WSDOT            | Construct HOV/business access and transit (BAT) lanes on Evergreen Way/Highway 99 from 148th Street SW to Airport Road and from 115th Street SW to 46th Street.                          | Yes                                      | Yes                               |
| I-5: SR 2 to SR 528 Managed Lanes and Interchange Improvements | City of Everett  | Construction of high-occupancy toll (HOT) lanes on I-5 between Everett and Marysville.                                                                                                   | Yes                                      | N/A                               |
| Link Extensions                                                | Sound Transit    | Link Light Rail Transit Extensions from: Northgate to Lynnwood<br>Seattle to Downtown Redmond<br>S. Kirkland to Issaquah<br>Angle Lake to Tacoma<br>Federal Way to Tacoma                | Yes                                      | N/A                               |

| Location                                                                 | Sponsor          | Project Description                                                                                                                                                                                                   | Included in Regional Travel Demand Model | Included in Intersection Analysis |
|--------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|
|                                                                          |                  | Downtown Seattle to West Seattle<br>Downtown Seattle to Ballard                                                                                                                                                       |                                          |                                   |
| I-405 BRT                                                                | Sound Transit    | Stride Lines 1-3                                                                                                                                                                                                      | Yes                                      | N/A                               |
| US 2: Trestle Widening – Stage 1                                         | City of Everett  | Replace the WB US 2 structure between I-5 and SR 204. This project will also improve the interchange connections of SR 204 to WB US 2 and the I-5/US 2 interchange. Pedestrian and bicycle improvements are included. | Yes                                      | N/A                               |
| SR 524 (196th Street SW) Widening<br>From 48th Avenue W to 37th Avenue W | Snohomish County | Capacity improvements include increasing the roadway section to seven lanes to accommodate installation of BAT lanes in each direction.                                                                               | Yes                                      | N/A                               |
| Poplar Way Extension Bridge                                              | City of Lynnwood | Construct a new six-lane bridge across I-5 connecting Poplar Way and 33rd Avenue W.                                                                                                                                   | No                                       | Yes                               |
| 130th Street SE Crossing                                                 | Snohomish County | Construct a new three to five lane arterial from 8th Avenue W to Meridian Avenue across I-5.                                                                                                                          | No                                       | Yes                               |
| SR 526 Corridor Improvements                                             | WSDOT            | Widen Seaway Boulevard ramp, widen bridge at Henderson Road, restripe of the EB main line of SR 526 to create an additional general purpose lane, and install ramp                                                    | Yes                                      | N/A                               |

| Location                                                       | Sponsor           | Project Description                                                                                                                                                                                                        | Included in Regional Travel Demand Model | Included in Intersection Analysis |
|----------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|
|                                                                |                   | metering of EB SR 526 on-ramp to NB I-5.                                                                                                                                                                                   |                                          |                                   |
| I-5/44th Avenue Interchange Improvements                       | City of Lynnwood  | Complete existing half diamond interchange by adding access to the north. Project includes two braided ramps.                                                                                                              | Yes                                      | N/A                               |
| Swift BRT Gold Line – Smokey Point Corridor                    | Community Transit | Core Service or Swift BRT on N Broadway (Smokey Point corridor) from Everett Station up N Broadway, SR 529, State Avenue, Smokey Point to Arlington (SR 531).                                                              | Yes                                      | N/A                               |
| Swift BRT Silver Line – Airport Road to Cathcart Way (Everett) | Community Transit | Core Service or Swift BRT on Airport Road/128th Street SW/SE/132nd Street SE/Cathcart Way from SR 526 to SR 9.                                                                                                             | Yes                                      | N/A                               |
| Swift BRT Orange Line – 164th Street & 196th Street Corridors  | Community Transit | Service will be provided to the Lynnwood Regional Growth Center, two locally designated centers and four park-and-ride facilities with all day, bi-directional service operating at 10-minute frequency during peak hours. | Yes                                      | Yes                               |
| Swift BRT Blue Line Extension to N. 185th Street (Shoreline)   | Community Transit | Connect Sound Transit's Lynnwood Link Extension and the first Swift Blue line at the N 185th Street/I-5 Link station.                                                                                                      | Yes                                      | N/A                               |
| I-5 Managed Lanes: I-405 to US 2                               | WSDOT             | Convert HOV lanes to HOT lanes.                                                                                                                                                                                            | Yes                                      | N/A                               |
| Broadway Corridor Improvements                                 | City of Everett   | Widen to five lanes with bike lanes, sidewalks, and new                                                                                                                                                                    | Yes                                      | N/A                               |

| Location                                            | Sponsor         | Project Description                                                                                                                                                                                                                     | Included in Regional Travel Demand Model | Included in Intersection Analysis |
|-----------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------|
| From SR 526 to 37th St.                             |                 | bridge. Add transit signal priority.                                                                                                                                                                                                    |                                          |                                   |
| 41st Street Rucker Avenue Freight Corridor Phase 2  | City of Everett | Arterial and access improvements from Port of Everett to I-5 on West Marine View Drive to Rucker Avenue to 41st Street with improvements to better accommodate over-dimensional freight traffic and increasing general freight traffic. | Yes                                      | N/A                               |
| NB I-5 from I-405 to 164th Street SW Auxiliary Lane | WSDOT           | Construct additional northbound auxiliary lane.                                                                                                                                                                                         | Yes                                      | N/A                               |

SOURCE: PSRC (2022); City of Lynnwood (2023); Snohomish County (2023).



## 4.2 Transit

This section reviews transit service and circulation, regional and local bus transit, ridership, station area mode of access, transit LOS, and transit transfer rates.

### 4.2.1 Transit Service Assumptions

The No Build Alternative includes a variety of changes to both transit operations and facility improvements that are assumed to be funded for construction by 2046. Under the No Build Alternative, it is assumed that light rail would be extended to Lynnwood City Center and new light rail lines would be constructed to Redmond, Tacoma, West Seattle, and Ballard in Seattle, though service would be reduced due to the lack of OMF North to support additional vehicle storage and maintenance. OMF South in south King County would also be operational. Other transit service improvements that are assumed in the No Build Alternative include Sound Transit's Stride BRT service on SR 522.

EVLE could be constructed and operated in up to three phases. The initial phase would be completed by 2037 with service to the SW Everett Industrial Center Station, and the OMF North site would be in operation. The full build of all transit operations would be completed by 2041, with Everett Station serving as the final terminus. Completion of facility improvements and additional parking in the Mariner and Everett station areas is the final phase. The construction date of the parking facilities is unknown at this time, but this analysis assumes they would be open in 2046, five years after the start of service to Everett Station.

For the purposes of assessing future transit integration with the EVLE Project, Sound Transit has worked with Community Transit and Everett Transit to develop a future transit network that combined both operator's service networks. This network would need to be refined closer to project opening to develop more detailed operations plans for transit integration. Table 4-6 shows how transit service would operate with the No Build and Build Alternatives in 2046. Transit service operating in 2037 would be the same as that described in Table 4-6, with exceptions noted where connections to EVLE are not provided due to stations beyond the initial phase not being in operation at that stage.

**Table 4-6 2046 Conceptual Transit Routes at Light Rail Stations**

| Route Number <sup>a</sup> | Route Description                          | 2046 No Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday | 2046 Build Transit Service <sup>b</sup> | 2046 Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday |
|---------------------------|--------------------------------------------|----------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| 2                         | Eastmont – Mariner Park-and-Ride – Ash Way | 20                                           | 20                                      | Revised termini <sup>d</sup>            | 20                                        | 20                                      |
| 3                         | Everett Station - Seaway                   | 30                                           | 30                                      | Revised route <sup>e</sup>              | 30                                        | 30                                      |
| 4 <sup>c</sup>            | Everett Station –                          | 30                                           | 30                                      | Revised route <sup>f</sup>              | 30                                        | 30                                      |

| Route Number <sup>a</sup> | Route Description                                       | 2046 No Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday | 2046 Build Transit Service <sup>b</sup> | 2046 Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday |
|---------------------------|---------------------------------------------------------|----------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
|                           | Everett Community College                               |                                              |                                         |                                         |                                           |                                         |
| 6 <sup>c</sup>            | Riverfront – Quil Ceda                                  | 30                                           | 30                                      | Revised termini <sup>g</sup>            | 30                                        | 30                                      |
| 7                         | Mariner Park-and-Ride – Everett Station                 | 15                                           | 15                                      | Revised termini <sup>h</sup>            | 15                                        | 15                                      |
| 8                         | Everett Station – Paine Field                           | 30                                           | 30                                      | Revised terminus <sup>i</sup>           | 30                                        | 30                                      |
| 12                        | Seaway – Eastmont                                       | 30                                           | 30                                      | Revised terminus <sup>j</sup>           | 30                                        | 30                                      |
| 14                        | Seaway – Ash Way                                        | 20                                           | 20                                      | New <sup>k</sup>                        | 20                                        | 20                                      |
| 15                        | McCollum Park – Mukilteo via Paine Field                | 30                                           | 30                                      | New <sup>l</sup>                        | 30                                        | 30                                      |
| 16                        | Everett Station – Seaway                                | 30                                           | 30                                      | New <sup>m</sup>                        | 30                                        | 30                                      |
| 17 <sup>c</sup>           | Lake Stevens – Everett Community College                | 30                                           | 30                                      | New <sup>n</sup>                        | 30                                        | 30                                      |
| 18 <sup>c</sup>           | Mukilteo Ferry – Everett Station                        | 20                                           | 20                                      | Revised route <sup>o</sup>              | 20                                        | 20                                      |
| 29 <sup>c</sup>           | McCollum Park Park-and-Ride – Everett Community College | 15                                           | 15                                      | Revised terminus <sup>p</sup>           | 15                                        | 15                                      |
| 90X <sup>c</sup>          | Skagit Snohomish Connector (Burlington – Everett)       | 60                                           | 60                                      | Same as No Build                        | 60                                        | 60                                      |
| 101                       | Mariner Park-and-                                       | 30                                           | 30                                      | Same as No Build                        | 30                                        | 30                                      |

| Route Number <sup>a</sup> | Route Description                                     | 2046 No Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday | 2046 Build Transit Service <sup>b</sup> | 2046 Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday |
|---------------------------|-------------------------------------------------------|----------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
|                           | Ride – Aurora Village                                 |                                              |                                         |                                         |                                           |                                         |
| 103                       | Seaway – Ash Way                                      | 20                                           | 20                                      | New <sup>q</sup>                        | 20                                        | 20                                      |
| 106                       | Mariner Park-and-Ride – Bothell                       | 30                                           | 30                                      | Revised route <sup>r</sup>              | 30                                        | 30                                      |
| 112                       | Mountlake Terrace – Ash Way Park-and-Ride             | 15                                           | 20                                      | Same as No Build                        | 15                                        | 20                                      |
| 117                       | Mukilteo – Ash Way                                    | 30                                           | 30                                      | Revised terminus <sup>s</sup>           | 30                                        | 30                                      |
| 121                       | Ash Way – Bothell                                     | 30                                           | 30                                      | Revised route <sup>t</sup>              | 30                                        | 30                                      |
| 122                       | Alderwood Mall – Mountlake Terrace                    | 15                                           | 20                                      | New <sup>u</sup>                        | 15                                        | 20                                      |
| 152 <sup>c</sup>          | Everett - Snohomish – SR 522/I-405 Stride Transit Hub | 30                                           | 30                                      | New <sup>v</sup>                        | 30                                        | 30                                      |
| 157                       | Stanwood – Mariner                                    | 30                                           | 30                                      | New <sup>w</sup>                        | 30                                        | 30                                      |
| 201 <sup>c</sup>          | Smokey Point – Everett Station                        | 31                                           | 31                                      | Revised terminus <sup>x</sup>           | 31                                        | 31                                      |
| 270 <sup>c</sup>          | Monroe - Everett                                      | 30                                           | 30                                      | Revised terminus <sup>y</sup>           | 30                                        | 30                                      |
| 412 <sup>c</sup>          | Everett – Camano                                      | 45                                           | 45                                      | Same as No Build                        | 45                                        | 45                                      |
| Swift Blue                | Everett – Shoreline                                   | 10                                           | 10                                      | Same as No Build                        | 10                                        | 10                                      |
| Swift Green               | Seaway - Bothell                                      | 10                                           | 10                                      | Revised terminus <sup>z</sup>           | 10                                        | 10                                      |
| Swift Orange              | McCullum Park – Edmonds College                       | 10                                           | 10                                      | Same as No Build                        | 10                                        | 10                                      |

| Route Number <sup>a</sup> | Route Description            | 2046 No Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday | 2046 Build Transit Service <sup>b</sup> | 2046 Build Headways (minutes) Peak Period | 2046 No Build Headways (minutes) Midday |
|---------------------------|------------------------------|----------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| Swift Gold <sup>c</sup>   | Everett – Smokey Point       | 10                                           | 10                                      | Same as No Build                        | 10                                        | 10                                      |
| Swift Silver              | Seaway – SR 9 / Cathcart Way | 10                                           | 10                                      | New <sup>aa</sup>                       | 10                                        | 10                                      |
| Airport Shuttle           | Paine Field Airport Shuttle  | --                                           | --                                      | New <sup>bb</sup>                       | 20                                        | 20                                      |

SOURCE: Community Transit (2024); Everett Transit (2024); Sound Transit (2024).

NOTES:

- a) Route numbers are subject to change with final service decisions by transit agencies.
- b) All routes with a revised terminus would also have a revised route, unless otherwise specified.
- c) Route does not serve EVLE stations in the initial phase.
- d) Revised north terminus at Eastmont Park-and-Ride; revised route via Everett Mall and Mariner Park-and-Ride to reach revised south terminus at Ash Way Park-and-Ride.
- e) Revised route via Colby Avenue and Madison Street.
- f) Revised route via I-5 and E Marine View Drive.
- g) Revised north terminus at Quil Ceda Village; revised route via downtown Marysville, Everett Waterfront, and Everett Station; revised south terminus at Riverfront Boulevard/36th Street.
- h) Revised north terminus at Everett Station; revised route via Evergreen Way/SR 99 and Airport Road; revised south terminus at Mariner Park-and-Ride.
- i) Revised south terminus at Paine Field Airport; revised route via 100th Street SW and Holly Drive to rejoin No Build route.
- j) Revised east terminus at Eastmont Park-and-Ride; revised route via SR 527, SR 99, and 4th Avenue W/5th Avenue W to rejoin No Build Route.
- k) Proposed route via W Casino Road, 5th Avenue W/4th Avenue W, and Ash Way.
- l) Proposed route via 35th Avenue SE, 116th Street SE, 112th Street SE, Airport Road, SR 526, and SR 525.
- m) Proposed route via E Mukilteo Boulevard, Dogwood Drive/Beverly Lane, and Casino Road.
- n) Proposed route via US 2.
- o) Revised route via Mukilteo Boulevard from 41st Street to SR 525.
- p) Revised south terminus at McCollum Park Park-and-Ride; revised route via SR 527 to rejoin No Build route.
- q) Proposed route via SR 526 and SR 525.
- r) Revised route south of Canyon Park Park-and-Ride via 29th Drive SE and 19th Avenue SE/100th Avenue NE.
- s) Revised south terminus at Ash Way Park-and-Ride.
- t) Revised route connecting West Alderwood Station via Alderwood Mall Parkway and SR 524.
- u) Proposed route via 188th Street SW, 76th Avenue W, 220th Street SW and 228th Street SW.
- v) Proposed route via US 2, downtown Snohomish, and SR 522.
- w) Proposed route via I-5.
- x) Revised south terminus at Everett Station.
- y) Revised east terminus at Monroe.
- z) Revised south terminus at UW Bothell/Cascadia College; revised route via W Casino Road and SR 527
- aa) Proposed route via Airport Road/128th Street SW and SR 96.
- bb) Proposed route connecting Paine Field Airport with Mariner, SR 99/Airport Road, and SW Everett Industrial Center stations.

Transit service is assumed to change from what exists today with the No Build Alternative, with the addition or revision of routes shown in Table 4-6. Several local routes would be revised with no change to their termini under the No Build Alternative: Routes 3, 4, 18, 106, and 121. Several local routes would also have terminus changes that either extend or contract the route under the No Build Alternative. These routes would also undergo revisions of route along with the

terminus changes. Local routes experiencing a terminus change would be Routes 2, 6, 7, 8, 12, 29, and 117. New services would also be provided to provide local connectivity in station areas and along the EVLE Project corridor.

Several regional and BRT routes would also be added or revised under the Build Alternatives. Route 201, which currently provides regional service from Smokey Point to Lynnwood, would be truncated at Everett Station. Route 270 from Everett Station would be truncated in Monroe rather than extending to Gold Bar. The Swift Green Line BRT service would be extended south, with its new terminus located at UW Bothell/Cascadia College. Two new services would also be provided: Route 152 connecting Everett to the SR 522/I-405 Stride BRT Transit Hub in Bothell via Snohomish, and Route 157 connecting Stanwood to Mariner Station via I-5.

For the Build Alternatives, there would be the same systemwide transit improvements as the No Build Alternative, plus the extension of light rail to Everett Station. The project would include seven new light rail stations, one being provisional, two with new or expanded park-and-ride capacity, and improved transit connectivity through the construction of multimodal transit hubs at the stations. EVLE would operate 20 hours per day Monday through Saturday and 18 hours on Sundays and holidays. The EVLE alignment would be served by two service lines: the 2 Line and the 3 Line. The planned service schedule for both lines is outlined in Table 4-7. Each line would operate with planned AM and PM peak period headways of 6 minutes; headways of 10 minutes in the early morning, midday, evening, and weekend/holiday periods; and planned headways of 15 minutes in the late-night period. Due to interlining between the 2 and 3 Lines, effective frequencies between Mariner Station and downtown Seattle would be 3 minutes during the AM and PM peak periods.

**Table 4-7 Planned Service Schedule Along EVLE Alignment**

| Service Period     | Time Period          | Train Frequency –<br>2 Line | Train Frequency –<br>3 Line |
|--------------------|----------------------|-----------------------------|-----------------------------|
| Early morning      | 5 a.m. to 6 a.m.     | 10                          | 10                          |
| Morning peak       | 6 a.m. to 8:30 a.m.  | 6                           | 6                           |
| Midday             | 8:30 a.m. to 3 p.m.  | 10                          | 10                          |
| Afternoon peak     | 3 p.m. to 6:30 p.m.  | 6                           | 6                           |
| Evening            | 6:30 p.m. to 10 p.m. | 10                          | 10                          |
| Evening late night | 10 p.m. to 1 a.m.    | 15                          | 15                          |
| Weekend/Holiday    | All day              | 10                          | 10                          |

In addition to the planned changes to local and regional bus service assumed for the EVLE Project, local transit agencies could make additional changes in response to the project. These could include redeploying and/or reinvesting in bus service that is replaced by the EVLE light rail service. Such changes are dependent on transit funding and would result in a net benefit for transit riders. Also, ridership on the Sounder North commuter rail service could be affected if some riders choose to shift from commuter rail to light rail at Everett Station. This would free up additional capacity on Sounder trains for riders boarding at Mukilteo and Edmonds stations. The EVLE Project may also provide improved access to the Amtrak Station in Everett, improving ridership on the Amtrak Cascades route. Some bus riders could be affected if there are additional changes to the bus system beyond the previously identified bus integration plans to support new connections with the light rail system.

## 4.2.2 Regional and Local Bus Transit Operations at Light Rail Stations

This section describes how regional and local buses would operate at each of EVLE station areas. Table 4-8 provides a summary of transit routes serving each station area, and the routes are displayed in Figure 4-1 through Figure 4-18. Several of the routes represent new or revised routing for bus service.

**Table 4-8 2046 Conceptual Transit Routes at EVLE Stations**

| Station Area <sup>a</sup>     | Route                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| West Alderwood                | 121, 122, Swift Orange <sup>b</sup>                                                                                           |
| Ash Way                       | 2, 14, 103, 112, 117, 121, Swift Orange                                                                                       |
| Mariner                       | 2, 7, 14, 101, 106, 157, Swift Silver, Airport Shuttle                                                                        |
| SR 99/Airport Road            | 7, 101, Swift Blue, Swift Silver, Airport Shuttle                                                                             |
| SW Everett Industrial Center  | 3, 8 <sup>c</sup> , 12, 14 <sup>d</sup> , 15, 16 <sup>e</sup> , 103, Swift Green <sup>f</sup> , Swift Silver, Airport Shuttle |
| SR 526/Evergreen <sup>g</sup> | 7, 8 <sup>c</sup> , 16, Swift Blue, Swift Green <sup>f</sup>                                                                  |
| Everett Station <sup>g</sup>  | 3, 4, 6, 7, 8, 16, 17, 18, 29, 90X, 152, 201, 270, 412, Swift Blue, Swift Gold                                                |

SOURCE: Community Transit (2024); Everett Transit (2024); Sound Transit (2024).

**NOTES:**

- a) Unless otherwise noted, a listed route serves all station alternatives in the station area.
- b) Swift Orange Line would only serve Station ALD-D.
- c) Route 8 would only serve Stations SWI-C, EGN-B, and EGN-E.
- d) Route 14 would only serve Stations SWI-A and SWI-B.
- e) Route 16 would only serve Stations SWI-A and SWI-B.
- f) Swift Green Line would only serve Stations SWI-A, SWI-B, EGN-A, and EGN-B.
- g) Station would not yet be constructed under the initial phase.

### 4.2.2.1 West Alderwood Segment

Conceptual transit routes for the West Alderwood station alternatives are shown in Figure 4-1 through Figure 4-3. Two local routes would serve all station alternatives in the West Alderwood Segment, as indicated in Table 4-8. The Swift Orange Line would provide BRT service at Station ALD-D. Station ALD-B would provide an off-street bus loop adjacent to the station platform that would accommodate all active and layover bus bays. Station ALD-D would provide an off-street bus loop adjacent to the station platform that would accommodate two layover bus bays and one active bus bay; other active bus bays would be on-street. Station ALD-F would require on-street active and layover bus bays.



Figure 4-1 2046 Conceptual Transit Routes for Station ALD-B

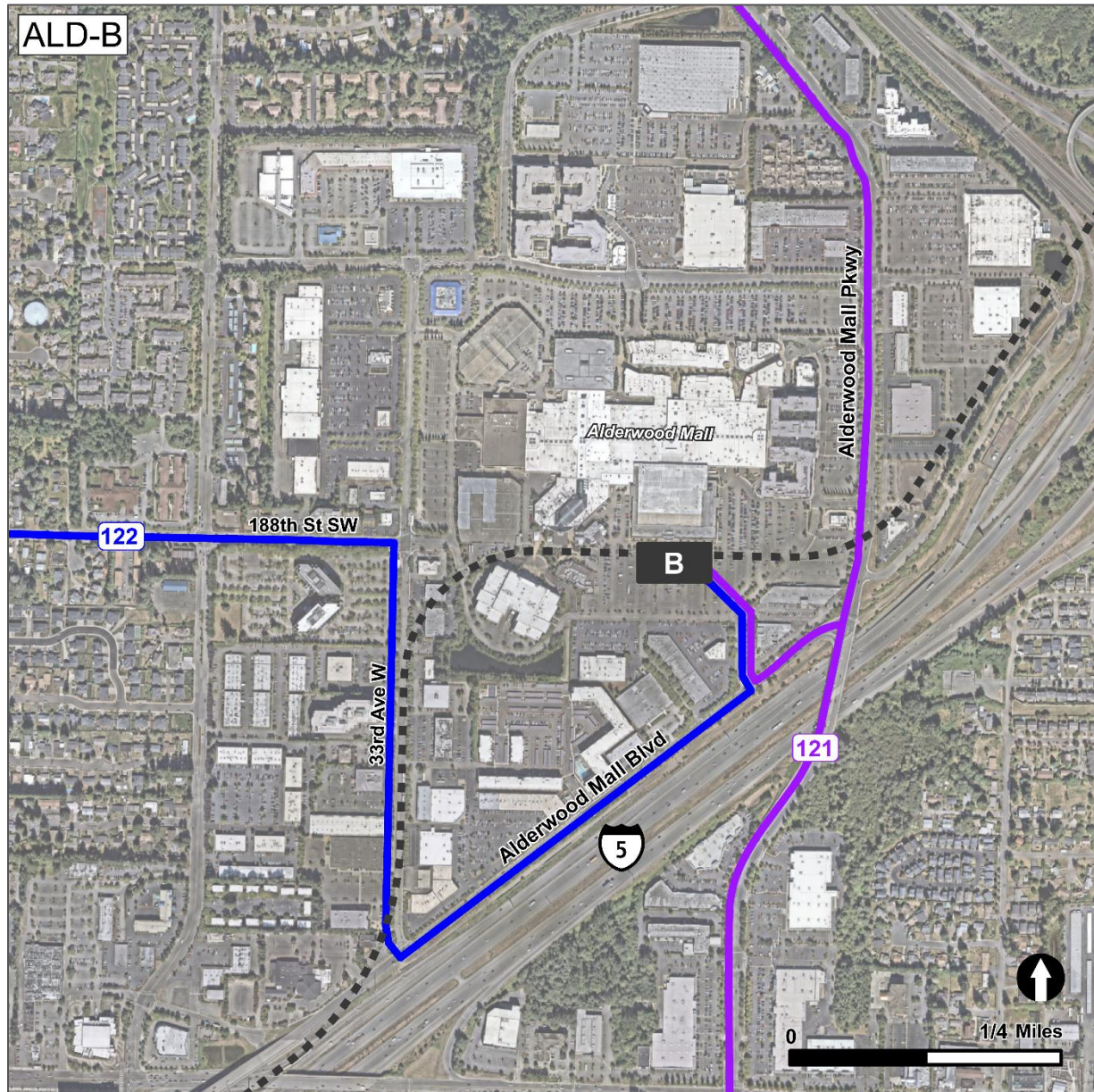




Figure 4-2 2046 Conceptual Transit Routes for Station ALD-D

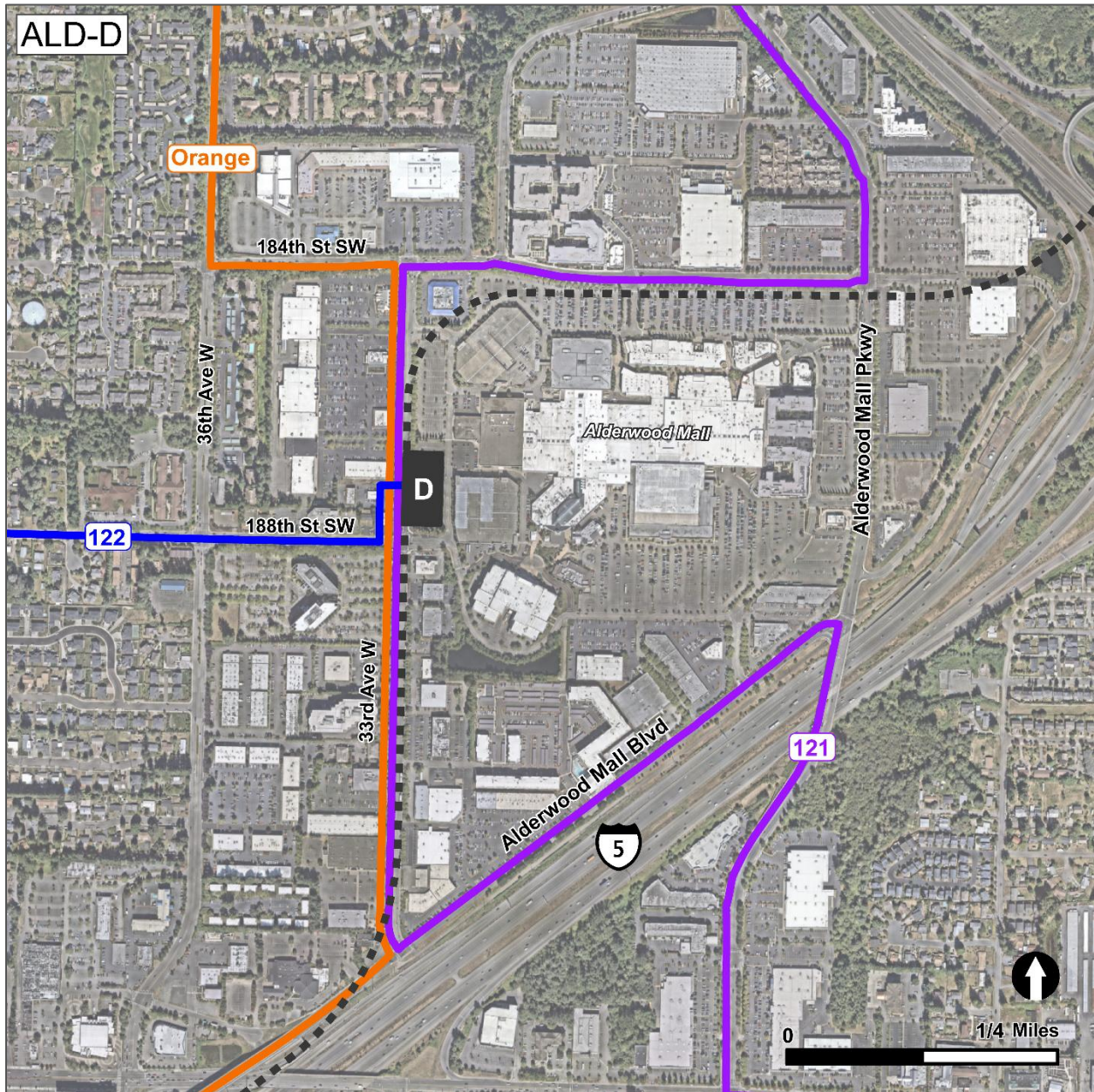
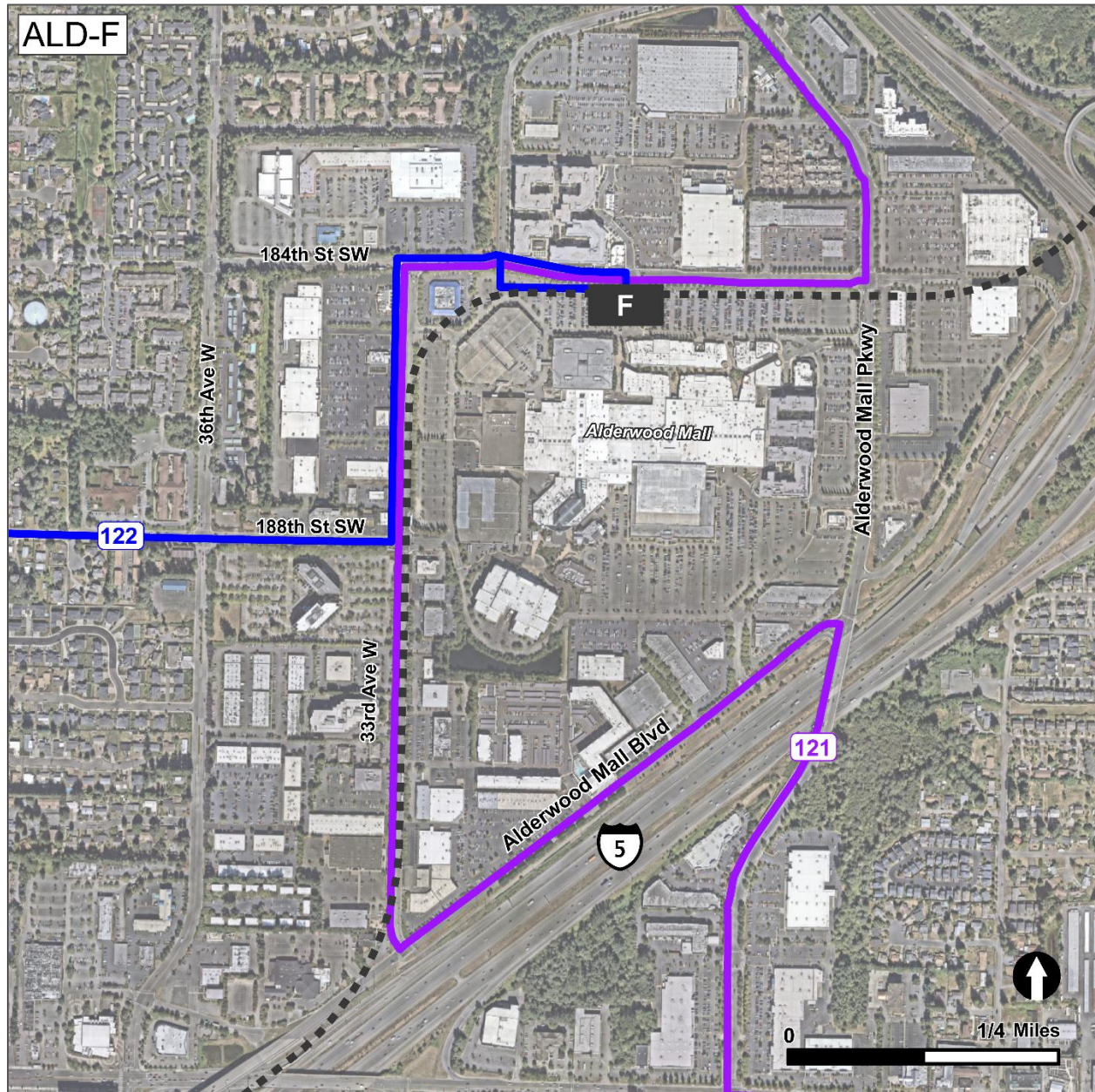




Figure 4-3 2046 Conceptual Transit Routes for Station ALD-F



#### **4.2.2.2 Ash Way Segment**

Conceptual transit routes for the Ash Way station alternatives are shown in Figure 4-4 and Figure 4-5. Six local routes would serve both station alternatives in the Ash Way Segment, as indicated in Table 4-8. Additionally, the Swift Orange Line would provide BRT service at both station alternatives. Both station alternatives would also provide an off-street bus loop adjacent to the station platform that would accommodate all active bus zones.

Alternative ASH-1A would reconfigure Ash Way Park-and-Ride to accommodate the station facilities. For Alternative ASH-2D, local bus routes and the Swift Orange Line would continue to serve Ash Way Park-and-Ride in addition to the light rail station. Impacts to the parking at Ash Way Park-and-Ride are addressed in Section 4.4.



Figure 4-4 2046 Conceptual Transit Routes for Station ASH-A

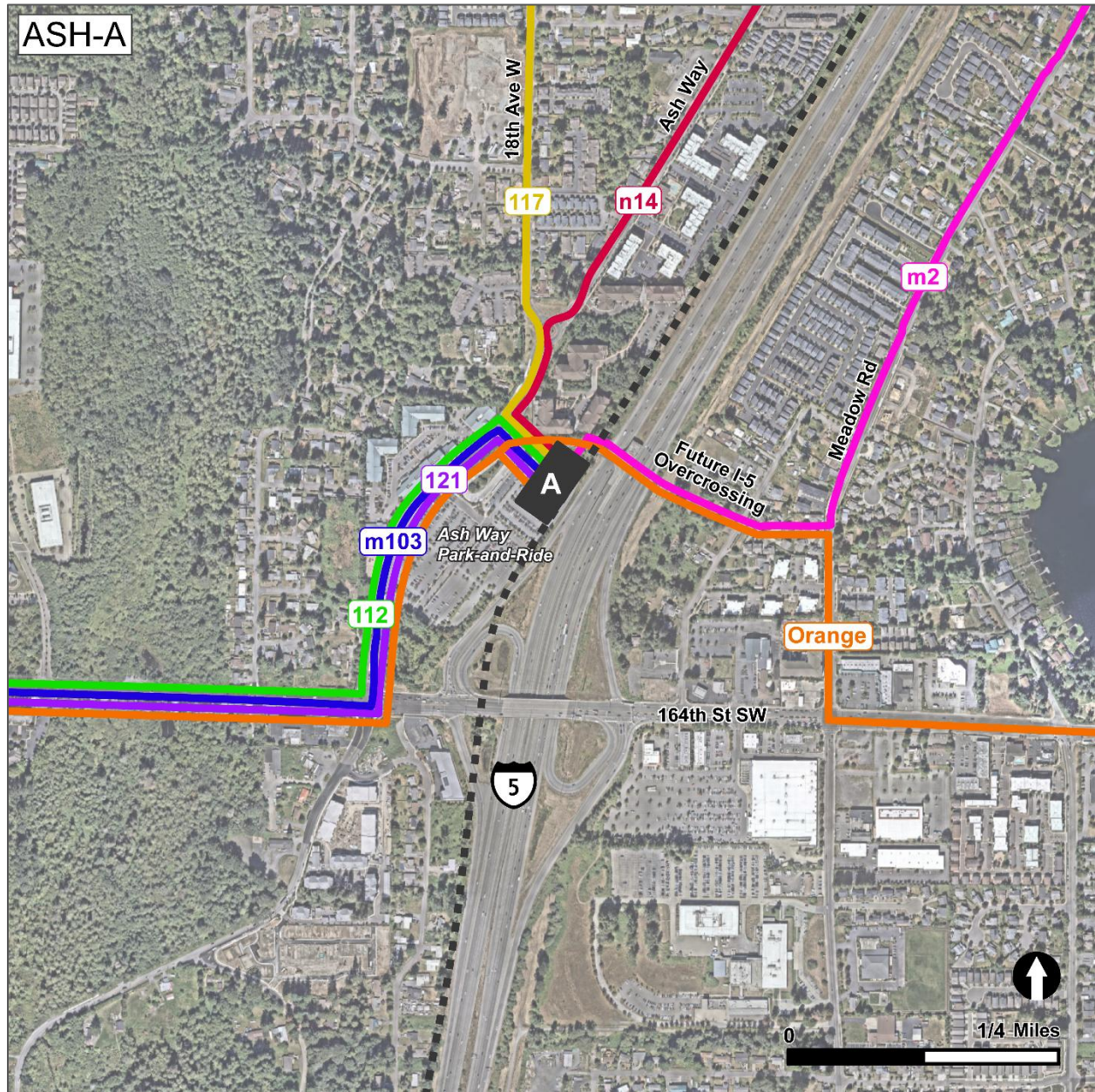
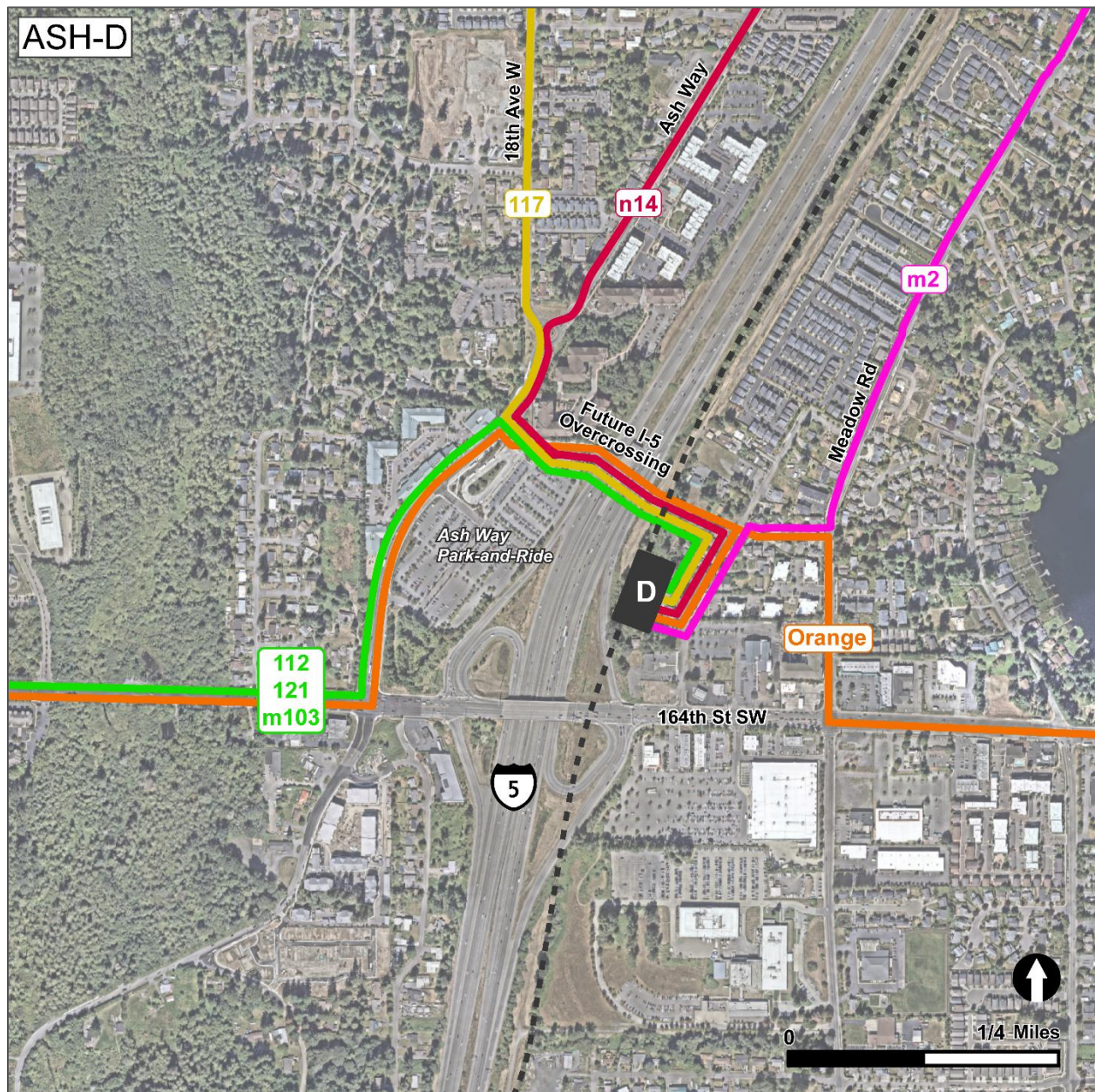




Figure 4-5 2046 Conceptual Transit Routes for Station ASH-D



#### **4.2.2.3 Mariner Segment**

Conceptual transit routes for the Mariner Station alternatives are shown in Figure 4-6 and Figure 4-7. Five local routes would serve both station alternatives in the Mariner Segment, as indicated in Table 4-8. A regional route would provide connectivity between Mariner and northern Snohomish County locations such as Marysville and Stanwood. Additionally, the Swift Silver Line would provide BRT service at both station alternatives. Station MAR-B would also provide an off-street bus loop adjacent to the station platform that would accommodate most active bus zones and all layover bus bays. Some on-street active bus bays would serve local routes and the Swift Silver Line. Station MAR-D would provide an off-street bus loop adjacent to the station platform that would accommodate most active bus bays and all layover bus bays. Station MAR-D would also include new Swift bus stations that would be installed on Snohomish County's new 130th Street east of the station.

All Mariner alternatives would reconfigure the existing Mariner Park-and-Ride bus loop. Impacts to the parking at Mariner Park-and-Ride are addressed in Section 4.4.



Figure 4-6 2046 Conceptual Transit Routes for Station MAR-B

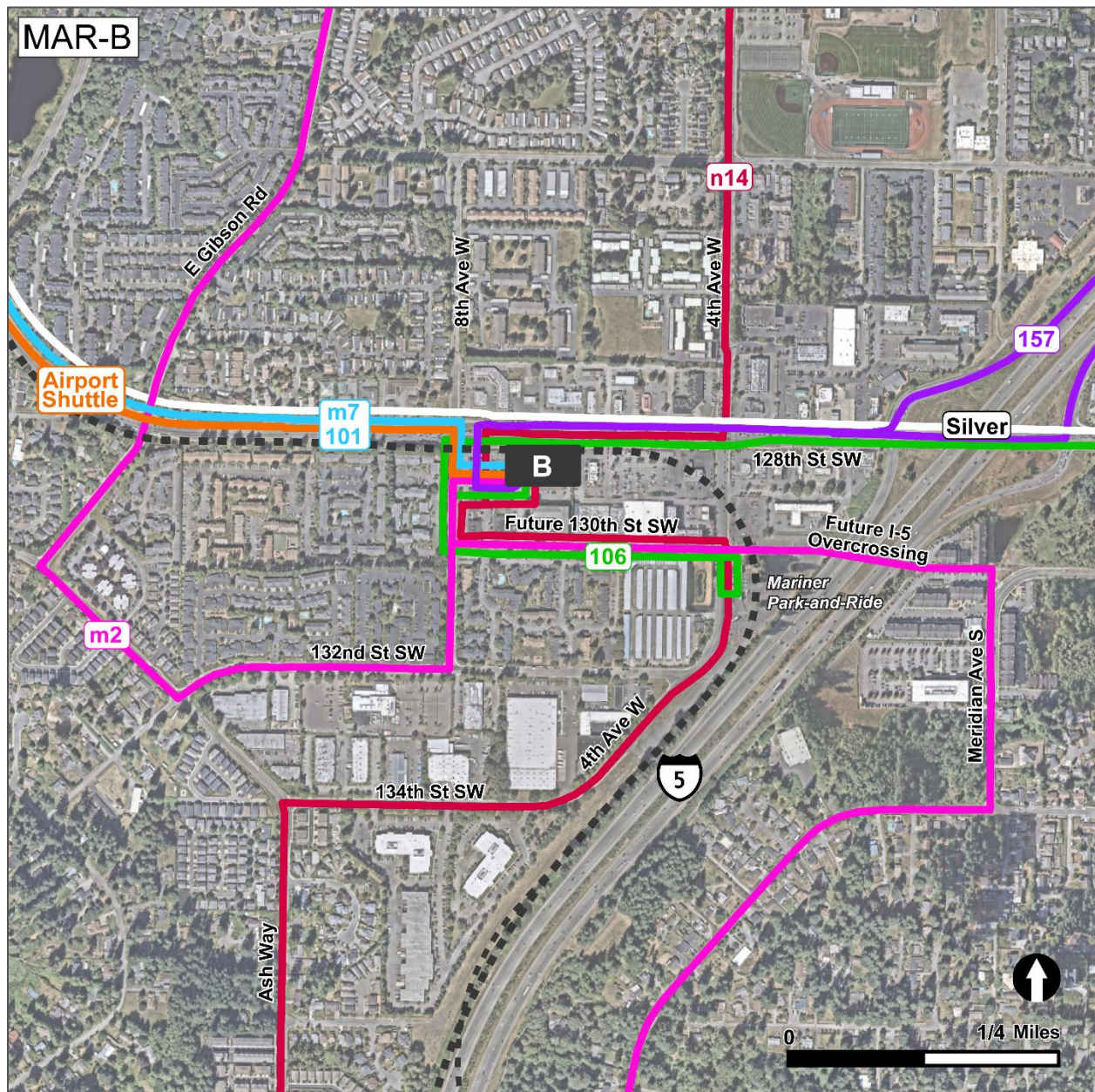
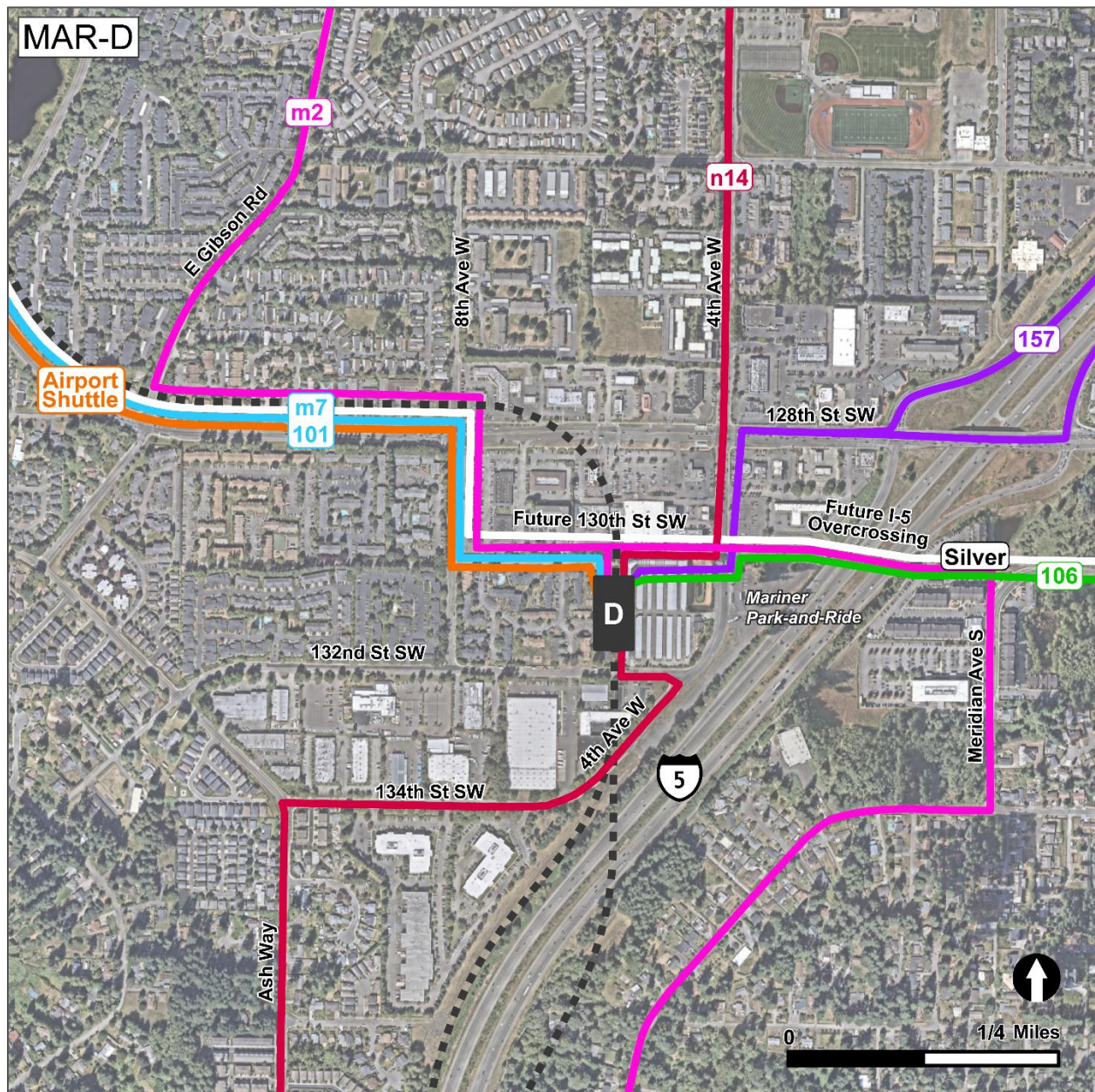




Figure 4-7 2046 Conceptual Transit Routes for Station MAR-D





#### **4.2.2.4 SR 99/Airport Road Segment**

Conceptual transit routes for the SR 99/Airport Road Station alternatives are shown in Figure 4-8 and Figure 4-9. Two local routes would serve both station alternatives in the SR 99/Airport Road Segment, as indicated in Table 4-8. Additionally, the Swift Blue and Silver Lines would provide BRT service at both station alternatives. Both station alternatives would also provide off-street layover bus bays, while on-street active bus bays would serve local and BRT routes. The SB Swift bus station on Airport Road would be relocated to the north side of SR 99 for both alternatives.

Figure 4-8 2046 Conceptual Transit Routes for Station AIR-A

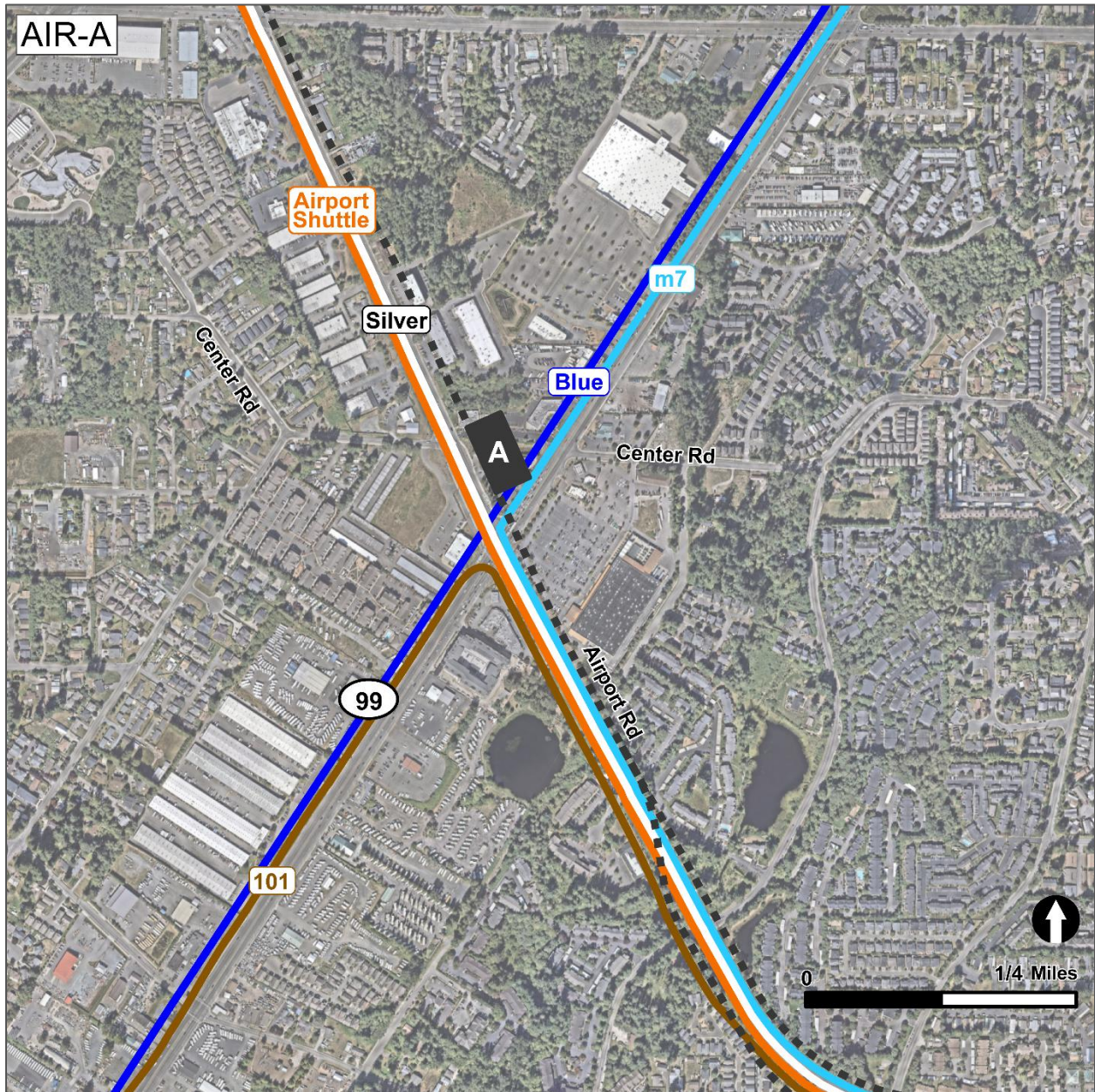
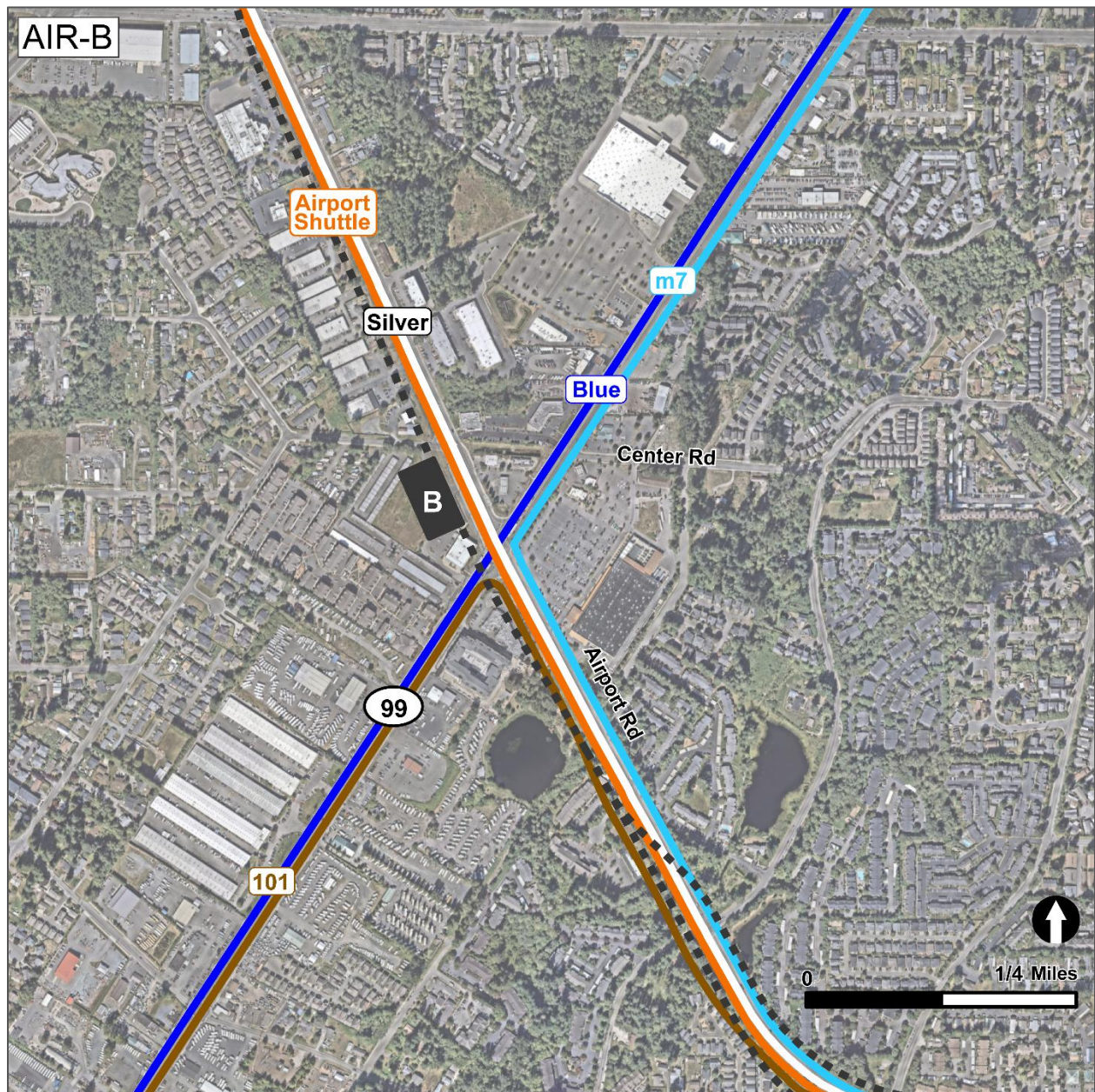




Figure 4-9 2046 Conceptual Transit Routes for Station AIR-B



#### **4.2.2.5 SW Everett Industrial Center Segment**

Conceptual transit routes for the SW Everett Industrial Center station alternatives are shown in Figure 4-10 through Figure 4-12. Four local routes would serve all station alternatives in the SW Everett Industrial Center Segment, as indicated in Table 4-8. One local route would serve Station SWI-C only, and two local routes would serve Stations SWI-A and SWI-B only, as described in Table 4-8. Additionally, the Swift Silver Line would provide BRT service at all station alternatives, while the Swift Green Line would serve Stations SWI-A and SWI-B only. All station alternatives would provide an off-street bus loop adjacent to the station platform that would accommodate most active bus zones and all layover bus bays. Some on-street active bus bays would also be in the station areas for all station alternatives. Station SWI-A would include two new Swift bus stations on W Casino Road.



Figure 4-10 2046 Conceptual Transit Routes for Station SWI-A

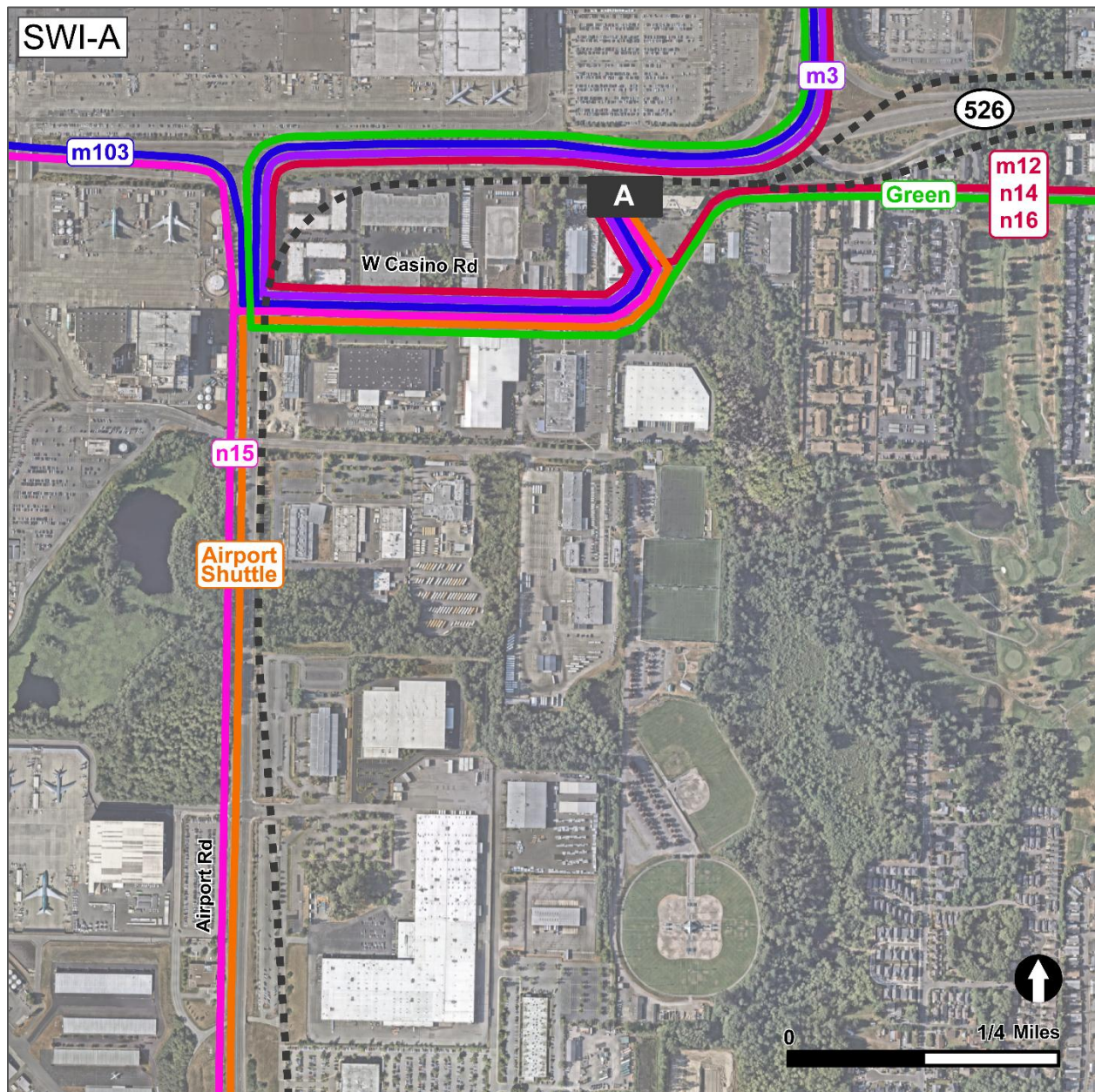




Figure 4-11 2046 Conceptual Transit Routes for Station SWI-B

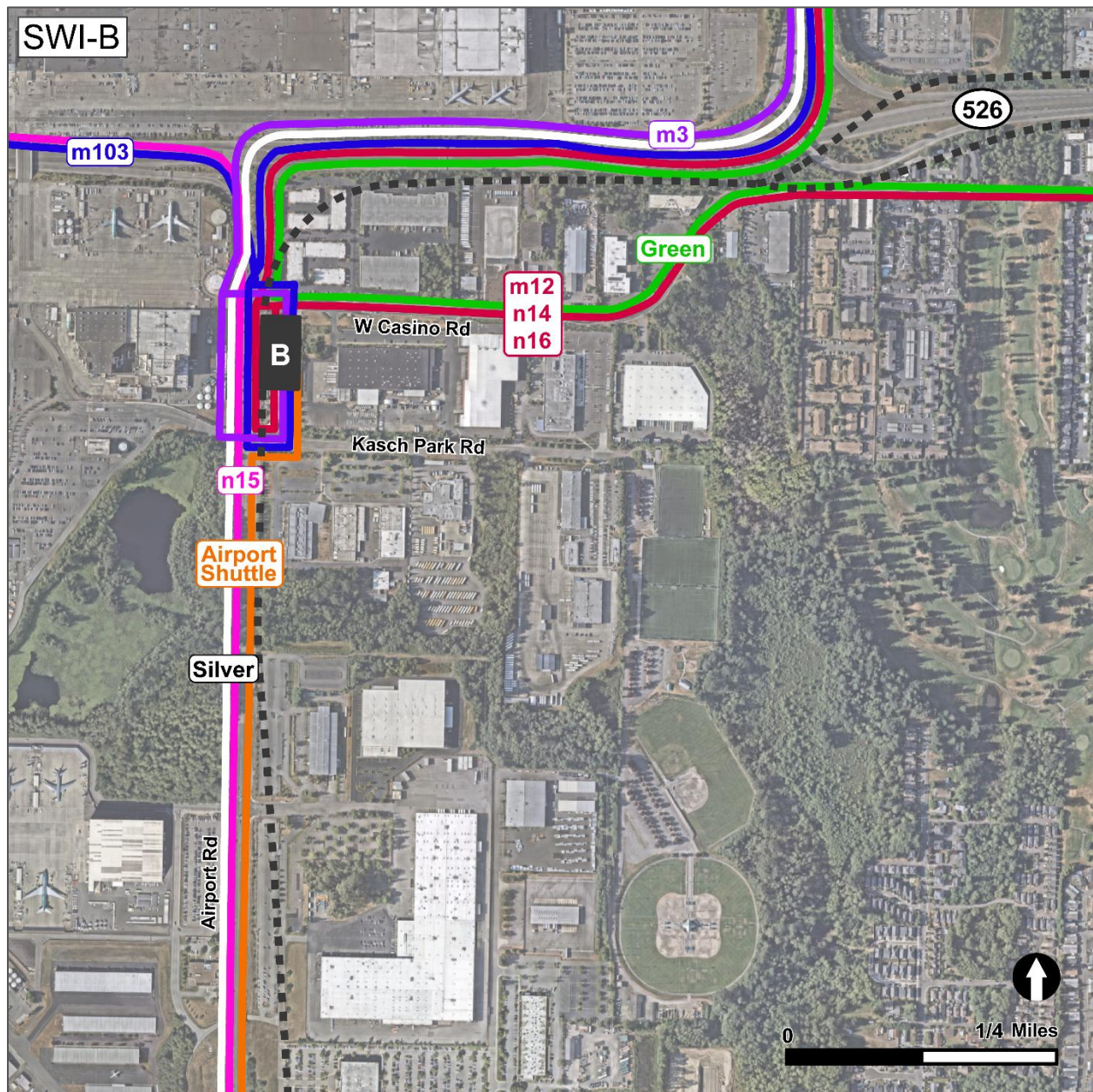
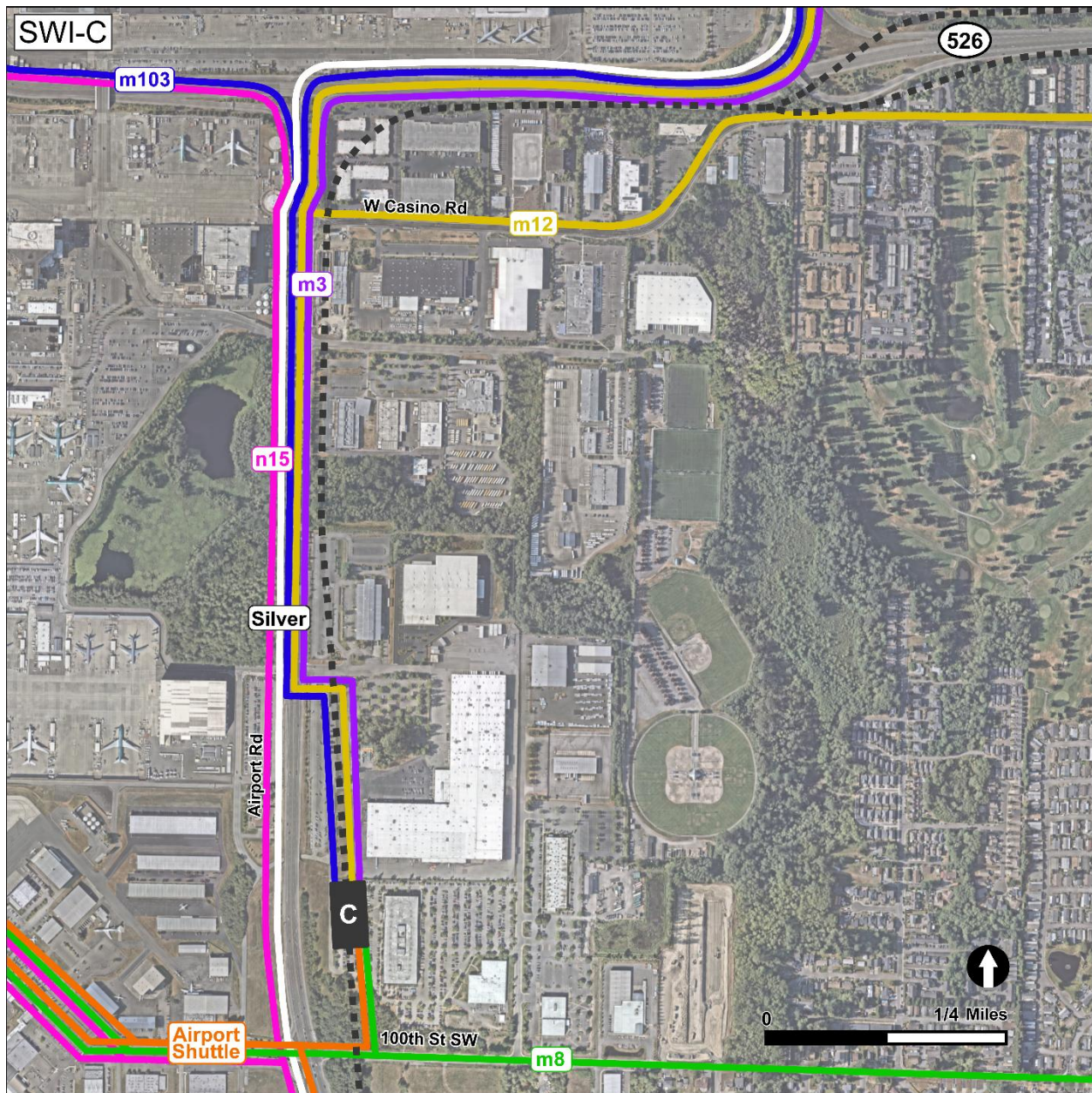




Figure 4-12 2046 Conceptual Transit Routes for Station SWI-C





#### 4.2.2.6 SR 526/Evergreen Segment

Conceptual transit routes for the SR 526/Evergreen Way Station alternatives are shown in Figure 4-13 through Figure 4-15. Two local routes would serve all station alternatives in the SR 526/Evergreen Segment, and one local route would serve Stations EGN-B and EGN-E only, as indicated in Table 4-8. Additionally, the Swift Blue Line would provide BRT service at all station alternatives, and the Swift Green Line would serve Stations EGN-B and EGN-E only. All station alternatives in the SR 526/Evergreen Segment would require all bus routes to use on-street active bus bays. Station EGN-A would include two new Swift bus stations on Evergreen Way north of SR 526.

**Figure 4-13 2046 Conceptual Transit Routes for Station EGN-A**

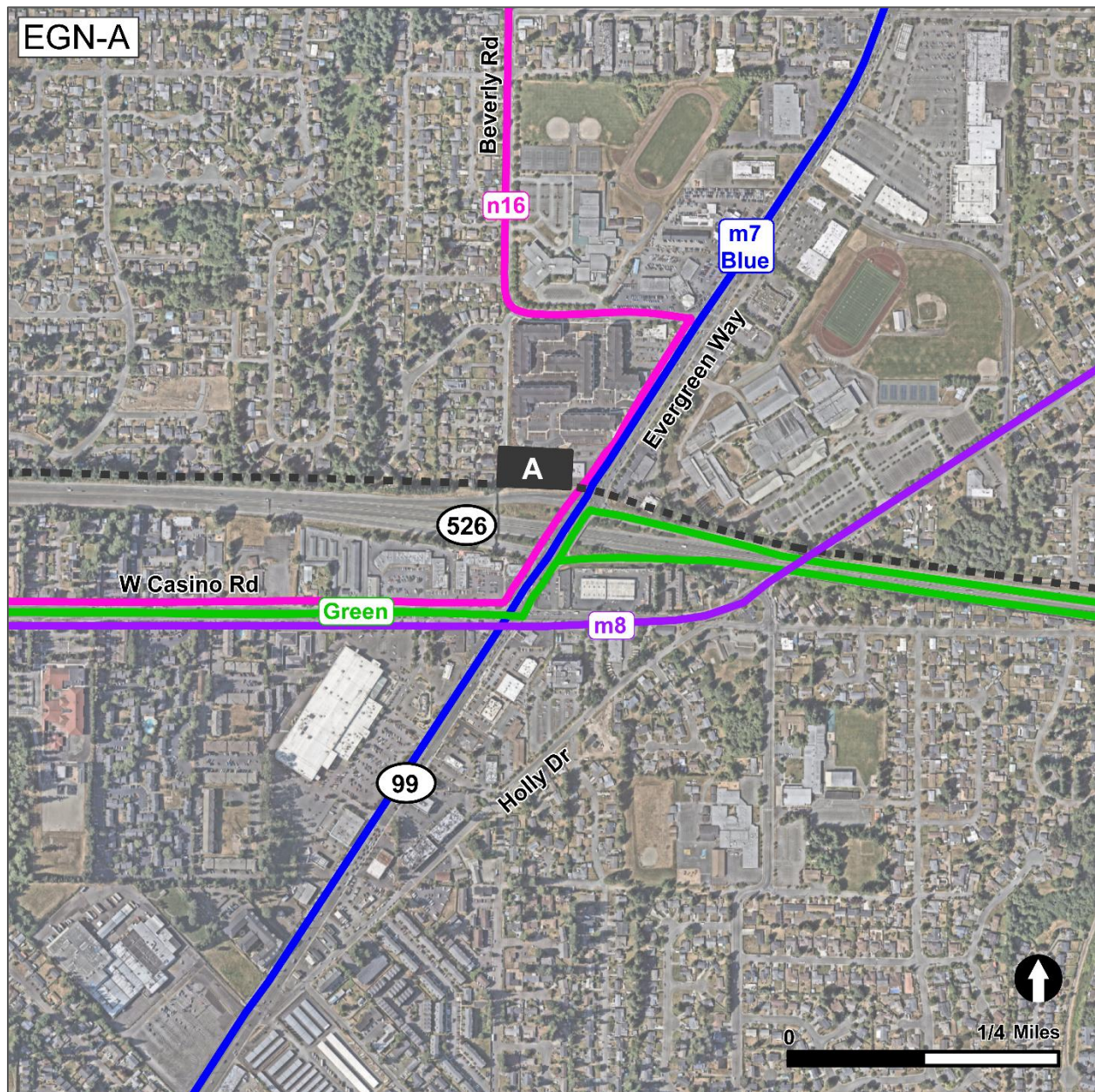




Figure 4-14 2046 Conceptual Transit Routes for Station EGN-B

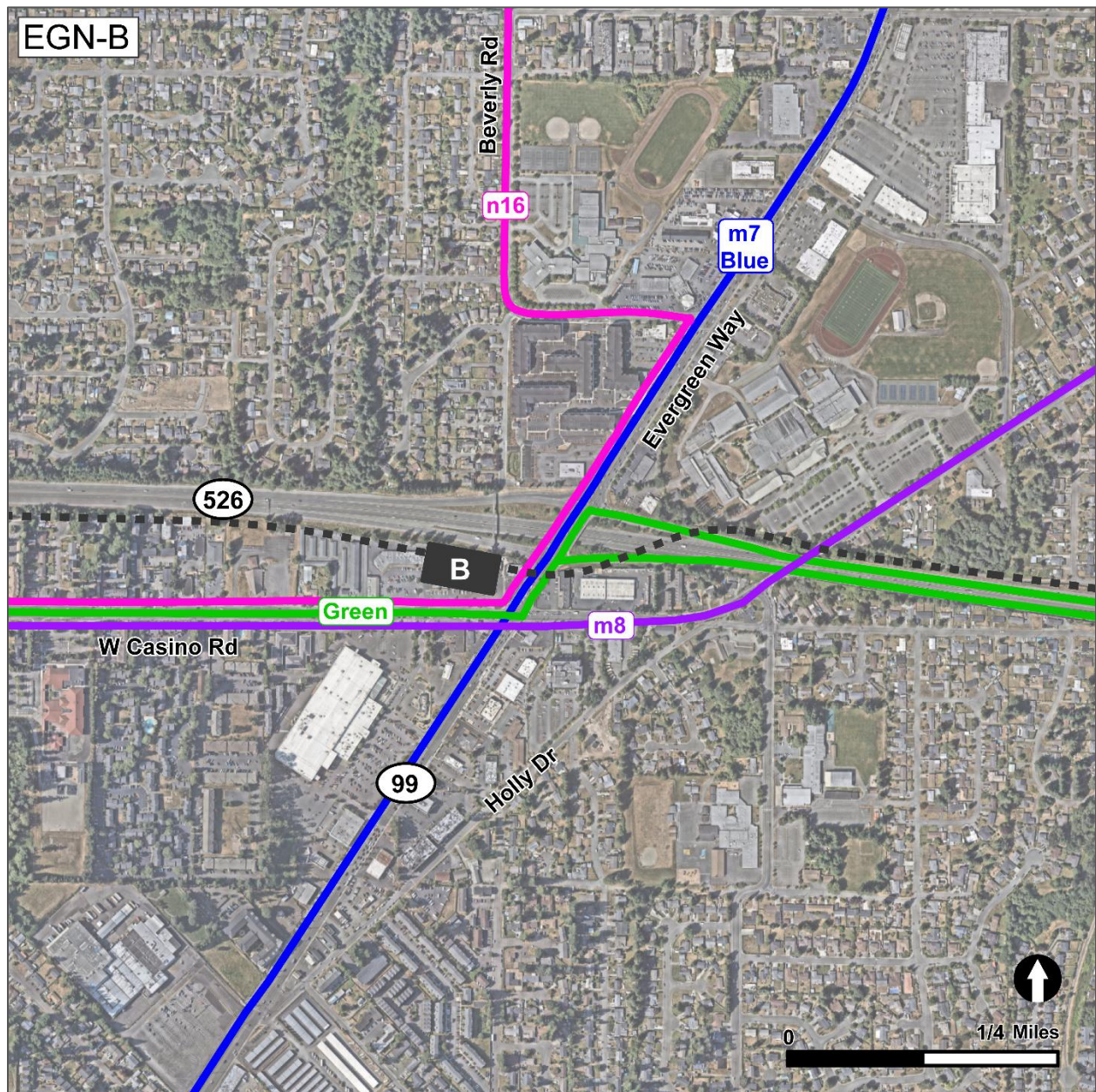
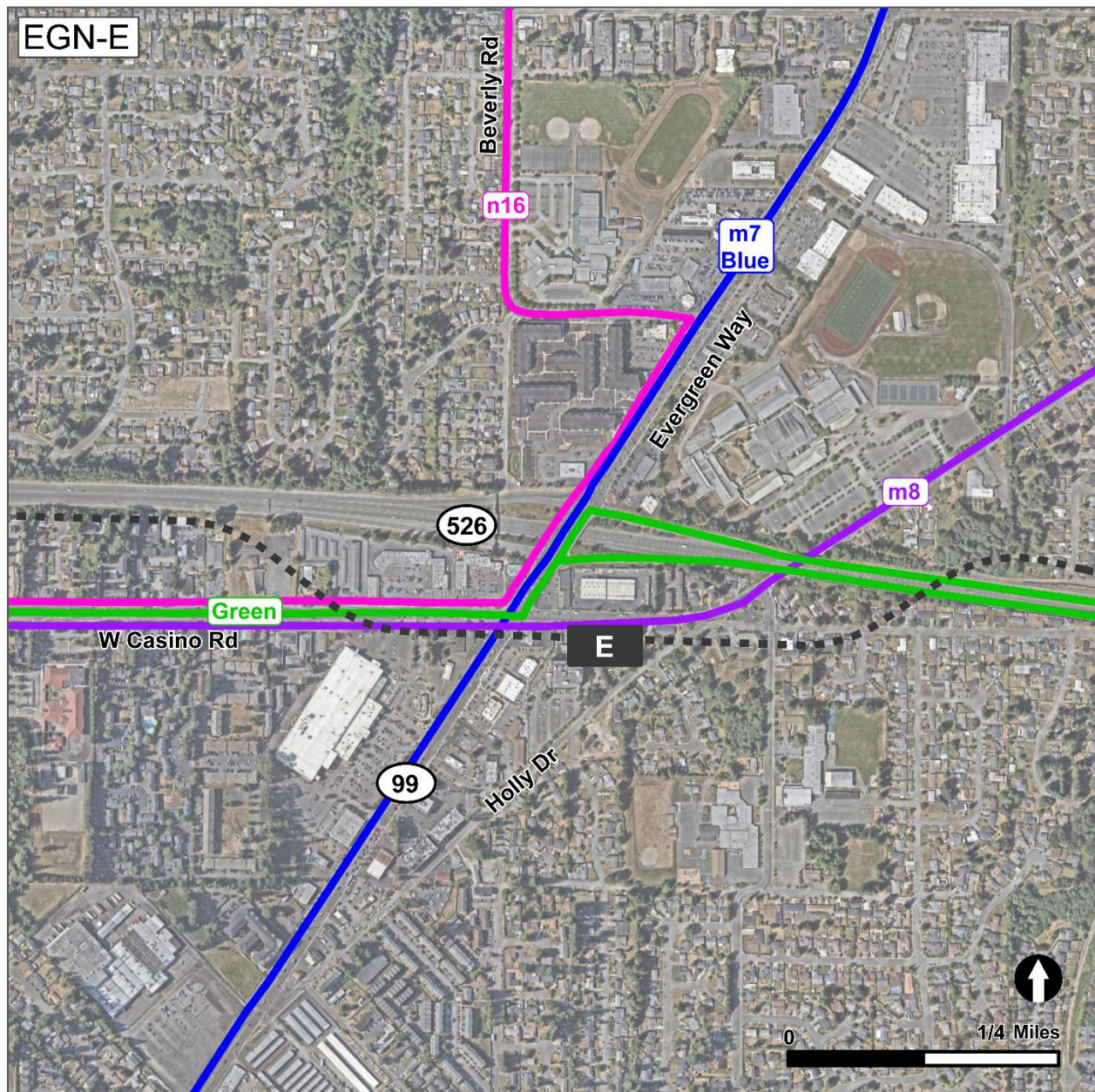




Figure 4-15 2046 Conceptual Transit Routes for Station EGN-E



#### **4.2.2.7 Broadway/I-5 Segment**

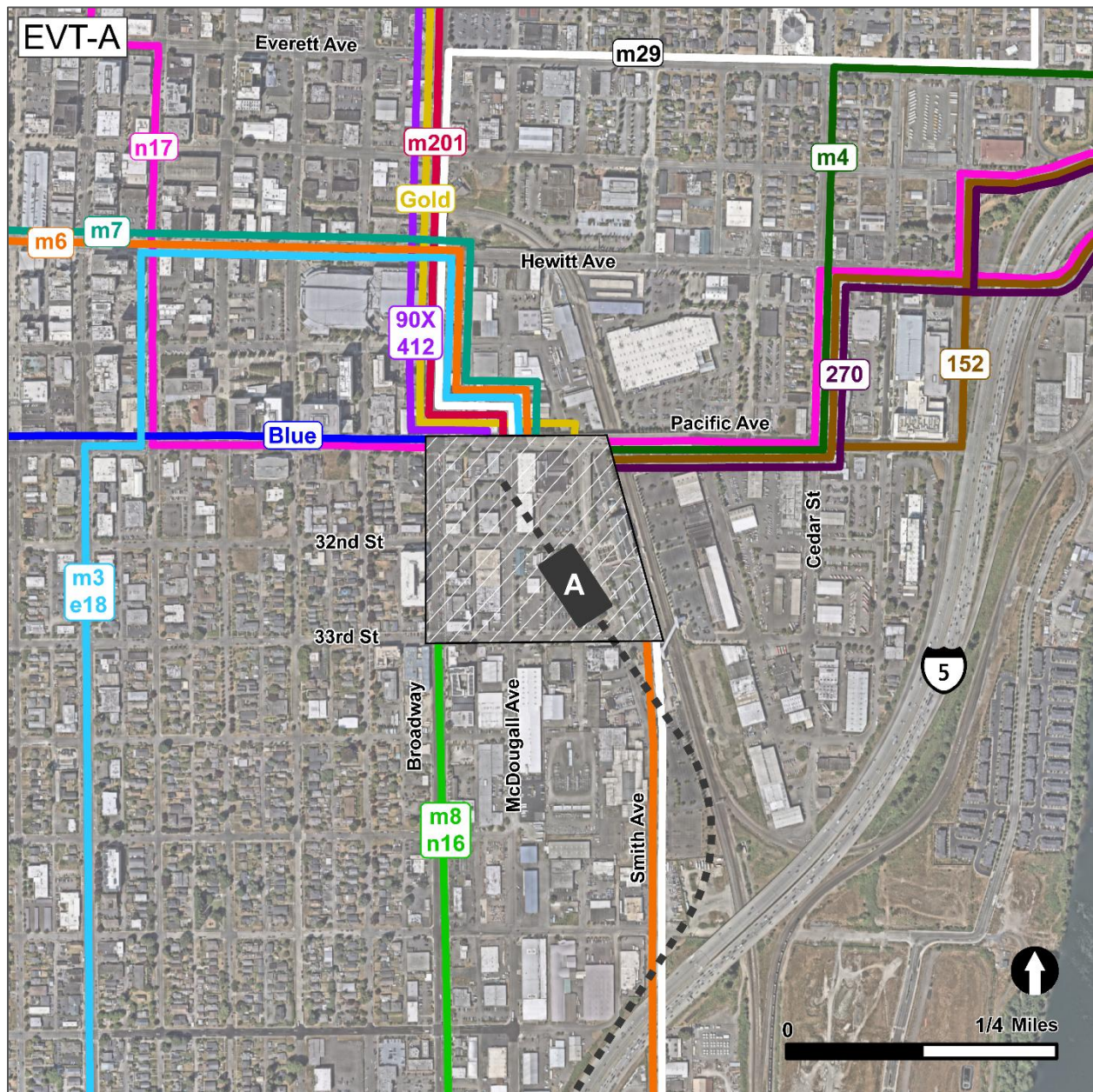
The Broadway/I-5 Segment does not contain any stations. Transit service to nearby stations, as shown in Table 4-8, is described for the SR 526/Evergreen Segment above and the Everett Station Segment below.

#### **4.2.2.8 Everett Station Segment**

Conceptual transit routes for the Everett Station alternatives are shown in Figure 4-16 through Figure 4-18. Nine local routes would serve all station alternatives in the Everett Station Segment, as indicated in Table 4-8. Three regional routes would provide connectivity to Snohomish, Monroe, Marysville, and Smokey Point. The Swift Blue and Gold Lines would provide BRT service at all station alternatives. Station EVT-A would provide a station access road with off-street active and layover bus bays, while some routes would use on-street active bus bays. Stations EVT-C and EVT-D would provide on-street active bus bays only. All stations would include new Swift bus stations located near the station entrance.



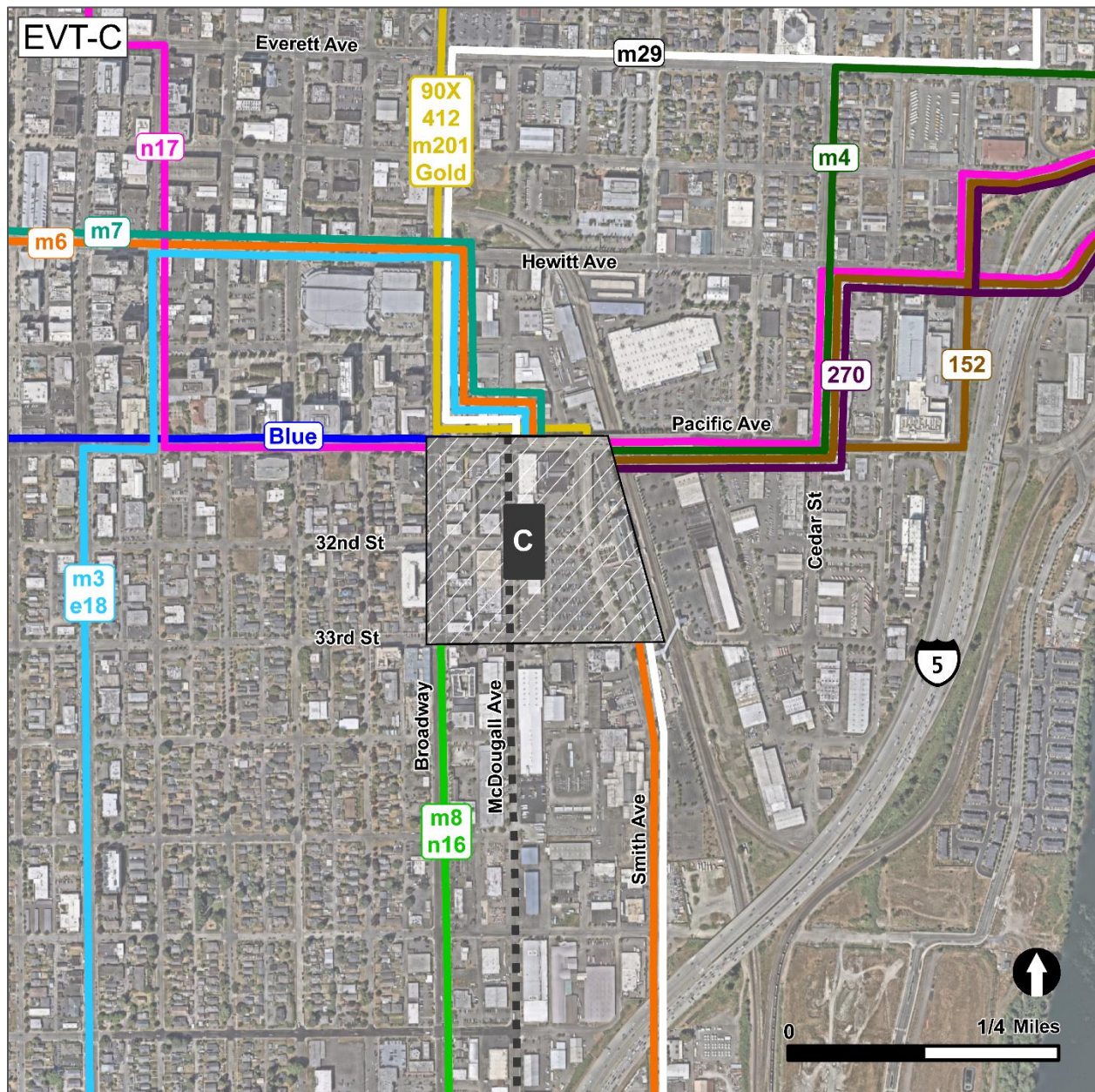
Figure 4-16 2046 Conceptual Transit Routes for Station EVT-A



NOTE: For visual clarity, routing near the station is not shown.



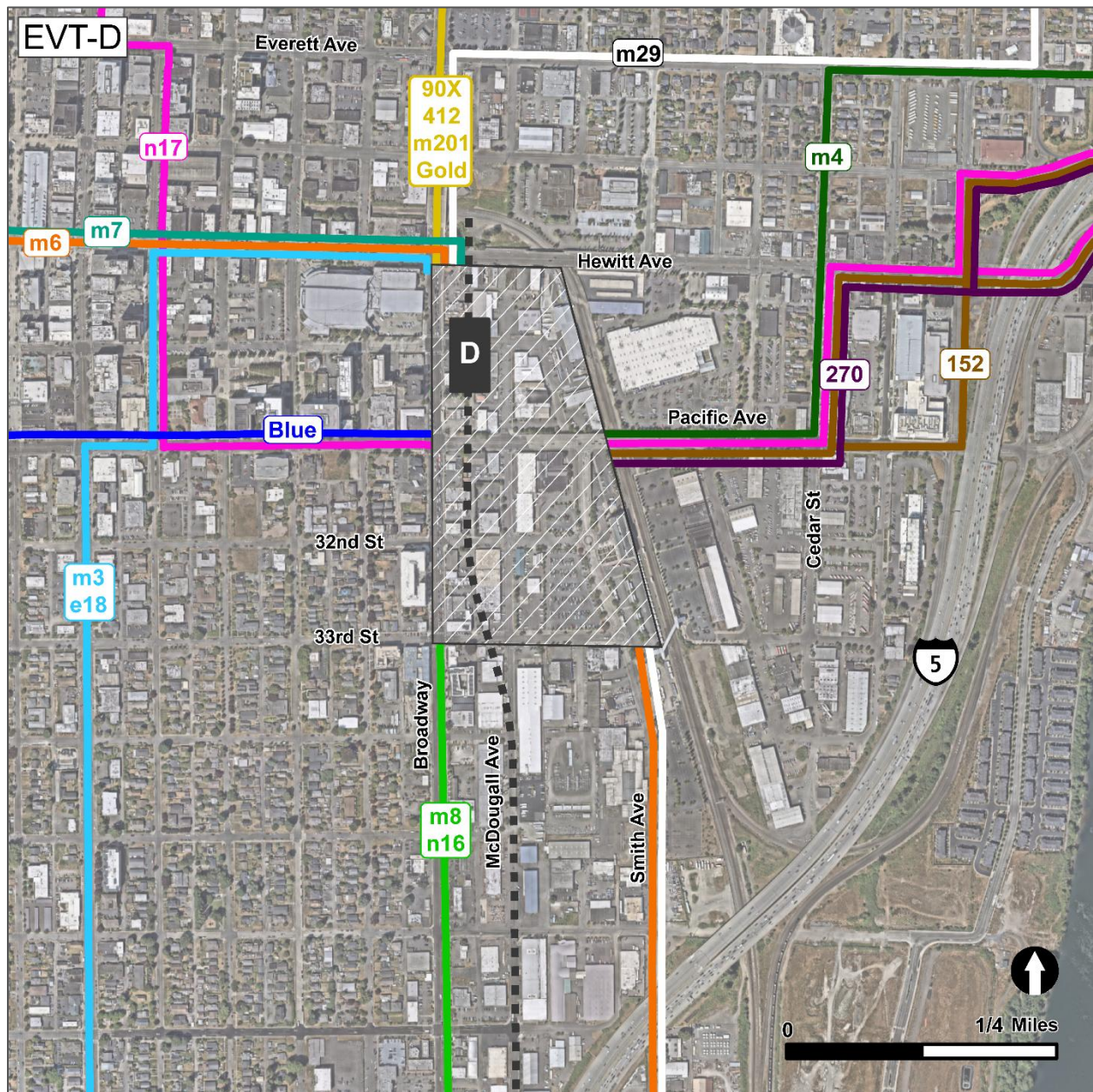
Figure 4-17 2046 Conceptual Transit Routes for Station EVT-C



NOTE: For visual clarity, routing near the station is not shown.



Figure 4-18 2046 Conceptual Transit Routes for Station EVT-D



NOTE: For visual clarity, routing near the station is not shown.

### 4.2.3 Ridership

The ridership forecasts produced for the EVLE Project were consistent with regional planning and used the most up-to-date information available. This includes the current regional land use forecast published by PSRC at the time the environmental analysis was being conducted. The ridership forecasts presented in this section do not directly forecast transit ridership during large events, such as those at the Angel of the Winds Arena, or special Sounder service to sporting events. While it is expected that additional ridership would be experienced on the light rail system during days with events at these facilities, it is not included in the forecasts. These events are intermittent and occur during various times of the day, with the highest surge often occurring outside of peak travel times. These events would occur without light rail expansion, and the EVLE Project would provide additional high-capacity transit service to support this demand and facilitate access by efficiently moving attendees and staff to and from events.

Station ridership forecasts were developed from Sound Transit's Incremental Ridership Model. The model includes planned parking for 550 cars at Mariner and 1,000 cars at Everett Station as well as assumptions about future transit service that can influence the ridership forecast. The Incremental Ridership Model provides estimated daily Link boardings for an average weekday and boardings and alightings for a 3.5-hour weekday PM peak period. Sound Transit develops ridership forecasts and reports them as a range to account for potential variability in ridership patterns. The ridership forecasts are also reported with a base scenario that is used for developing Build Alternative traffic forecasts. The range of potential ridership and the projected daily boardings at each station is outlined in Table 4-9 and illustrated in Figure 4-19. For both the initial phase and full build scenarios, 2046 was used as the horizon year. Forecast ridership at the Mariner and SR 99/Airport Road Stations is higher in the initial phase than in full build scenario because some riders that would use the SR 526/Evergreen or Everett Station would instead use the Mariner or SR 99/Airport Road Station in the initial phase condition.

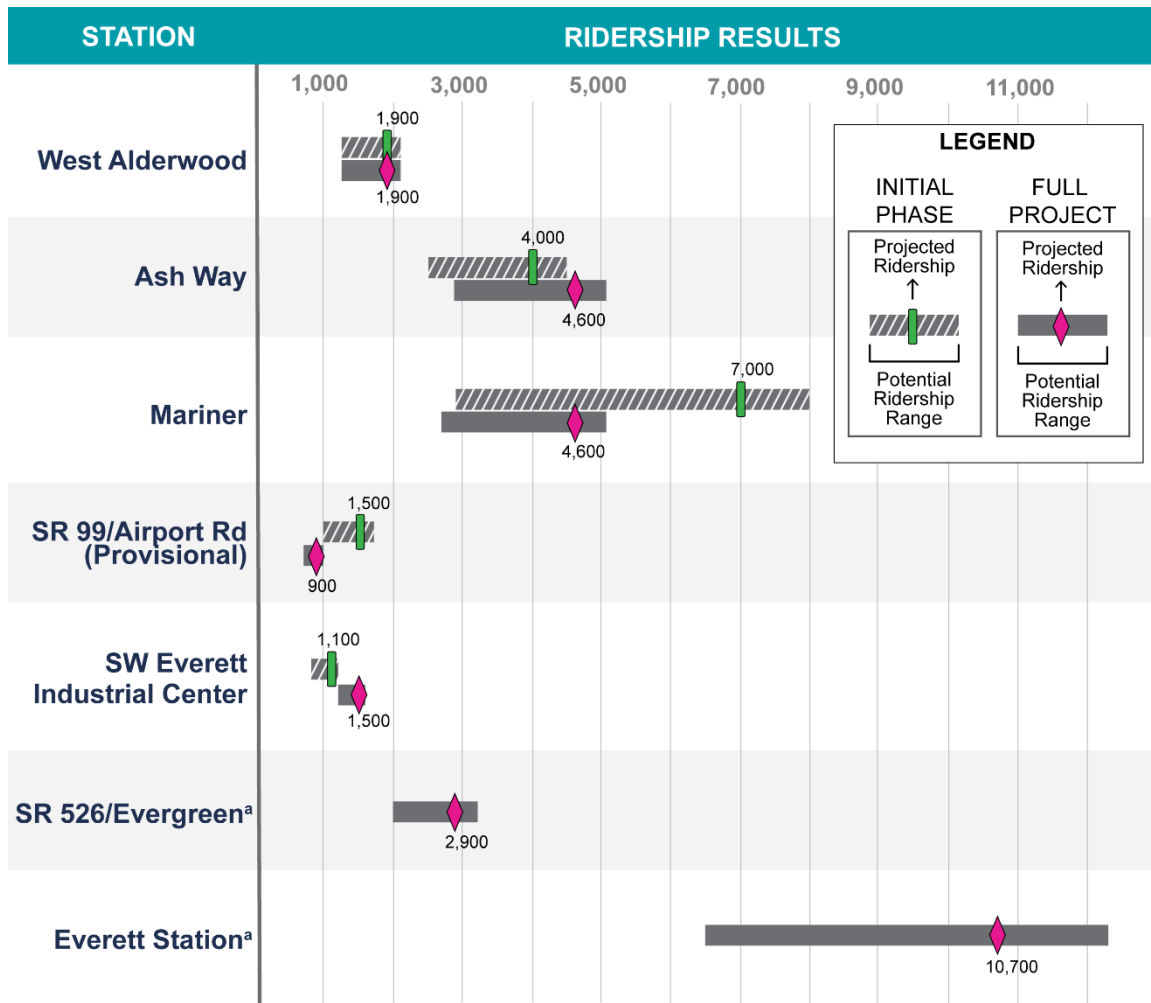
**Table 4-9 Projected Weekday Daily Transit and EVLE Trips (2046)**

| Measure                                               | No Build Alternative               | Initial Phase                      | Full Build Alternatives            |
|-------------------------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Total Regional Daily Transit Trips <sup>a</sup>       | 825,000<br>(568,000 – 888,000)     | 831,000<br>(572,000 – 894,000)     | 835,000<br>(575,000 – 899,000)     |
| Total Regional Daily Transit Boardings <sup>a,b</sup> | 1,275,000<br>(870,000 – 1,379,000) | 1,280,000<br>(874,000 – 1,386,000) | 1,287,000<br>(878,000 – 1,393,000) |
| Total Daily Link Boardings <sup>b</sup>               | 585,000<br>(388,000 – 633,000)     | 596,000<br>(395,000 – 646,000)     | 610,000<br>(405,000 – 663,000)     |
| Total EVLE Transit Trips                              | N/A                                | 29,000<br>(18,000 – 33,000)        | 45,000<br>(28,000 – 51,000)        |
| 2046 New Transit Trips <sup>c</sup>                   | N/A                                | 6,000<br>(4,000 – 6,000)           | 10,000<br>(7,000 – 11,000)         |

**NOTES:**

- Transit trips count each passenger only once between the origin and destination of their trip. Total transit trips include all trips on local transit service, Sound Transit buses, Sound Transit express buses, Sounder, and all Link services through completion of the ST3.
- Boardings count each time a passenger boards a transit vehicle; passengers who transfer between transit lines in a single trip count as multiple transit boardings. Total transit boardings include all boardings on Sound Transit buses, Sound Transit express buses, Sounder, and all Link services through completion of the ST3.
- New transit trips count the number of additional transit trips generated by EVLE compared to the No Build Alternative.

Figure 4-19 Potential Daily Boardings Range for Initial Phase and Full Project



NOTES:

a) Station not in operation in 2037 with the initial phase.

In addition to daily boardings, the Sound Transit Incremental Ridership Model provides forecasts for the 3.5-hour PM peak period. These peak period forecasts for the initial phase and the full project are shown in Table 4-10 and Table 4-11. Because the Sound Transit Incremental Ridership Model only provides forecasts for the 3.5-hour PM peak period, the 3.5-hour AM peak period was assumed to be the inverse of the PM peak period.

Table 4-10 EVLE PM Peak Period Boardings (2046)

| Build Alternative Station    | Initial Phase | Full Project |
|------------------------------|---------------|--------------|
| West Alderwood               | 800           | 800          |
| Ash Way                      | 400           | 500          |
| Mariner                      | 800           | 200          |
| SR 99/Airport Road           | 400           | 200          |
| SW Everett Industrial Center | 400           | 500          |
| SR 526/Evergreen             | NA            | 600          |



| Build Alternative Station | Initial Phase | Full Project |
|---------------------------|---------------|--------------|
| Everett Station           | NA            | 1,900        |

**Table 4-11 EVLE PM Peak Period Alightings (2046)**

| Build Alternative Station    | Initial Phase | Full Project |
|------------------------------|---------------|--------------|
| West Alderwood               | 600           | 600          |
| Ash Way                      | 2,400         | 2,600        |
| Mariner                      | 5,200         | 3,500        |
| SR 99/Airport Road           | 600           | 200          |
| SW Everett Industrial Center | 400           | 300          |
| SR 526/Evergreen             | N/A           | 1,000        |
| Everett Station              | N/A           | 5,200        |

Planned park-and-ride spaces at the stations in the Mariner and Everett Station Segments have been deferred until additional resources are identified. This analysis assumes the parking would be open in 2046, five years from the anticipated start of light rail to Everett Station. In order to understand potential changes to ridership between 2037 and 2046, daily boardings and alightings for the project were also forecast without parking at Mariner and Everett Stations. If no parking spaces were provided at the stations in the Mariner and Everett Station Segments, there would be approximately 1,000 fewer total daily boardings and alightings on the project.

#### 4.2.4 Station Mode of Access

Light rail stations are typically accessed by automobile (including park-and-ride trips and passenger drop-off/pickup), transit (bus, intercity rail, and light rail), walking, or bicycling. The Sound Transit Incremental Ridership Model provides an estimate of the various modes of access that would occur at each station; however, it does not explicitly forecast pickup/drop-off trips, which could be made by private vehicle, transportation network company, or taxi. Automobile access trips were broken down into park-and-ride, traditional pickup/drop off, and ride-hail using the methodology outlined in the *Traffic Forecasting Technical Memorandum* in Attachment E.

Mode of access for riders that exit the train at EVLE stations during the peak period was determined based on the Sound Transit Incremental Ridership Model, park-and-ride demand, and observed pickup/drop-off shares at similar transit stations in the Puget Sound and other US transit systems. Transit and walk/bike shares were estimated based on the Sound Transit model output and planned transit service levels and station characteristics.

Rider mode of access was forecast for 2046 for the full project build out, including 550 new park-and-ride spaces in the Mariner station area and 1,000 new park-and-ride spaces at the Everett Station area. Forecasts were not developed for conditions between the initial phase in 2037, the Build Alternatives without additional park-and-ride spaces in 2041, and 2046, as the 2046 forecasts demonstrate the largest potential effects of the project.

Table 4-12 summarizes the projected mode of access for riders who alight trains at EVLE stations during the 3.5-hour PM peak period. Mode of access in 2046 under the initial phase condition was also modeled and presented in this table. Although service to the SW Everett



Industrial Center Station is expected to be in operation from 2037 until service to Everett Station begins in 2041, 2046 was chosen as a “worst case” ridership scenario with higher ridership levels based on regional buildout with more potential local effects.

**Table 4-12 PM 3.5-Hour Peak Period Mode of Access at EVLE Stations (2046) – Passengers Alighting**

| Station                        | Park-and-Ride <sup>a,b</sup> | Pick-up <sup>a,b</sup> | Walk/Bike <sup>a,b</sup> | Transit Transfer <sup>a,b</sup> | Total Passengers Alighting <sup>c</sup> |
|--------------------------------|------------------------------|------------------------|--------------------------|---------------------------------|-----------------------------------------|
| <b>Initial Phase Condition</b> |                              |                        |                          |                                 |                                         |
| West Alderwood                 | 0<br>(0%)                    | 100<br>(12%)           | 400<br>(59%)             | 200<br>(29%)                    | 600                                     |
| Ash Way                        | 0<br>(0%)                    | 300<br>(12%)           | 1,000<br>(42%)           | 1,100<br>(46%)                  | 2,400                                   |
| Mariner                        | 0<br>(0%)                    | 600<br>(12%)           | 400<br>(7%)              | 4,200<br>(81%)                  | 5,200                                   |
| SR 99 / Airport Road           | 0<br>(0%)                    | 100<br>(12%)           | 0<br>(0%)                | 500<br>(88%)                    | 600                                     |
| SW Everett Industrial          | 0<br>(0%)                    | <100<br>(12%)          | 0<br>(0%)                | 400<br>(88%)                    | 400                                     |
| <b>Full Build</b>              |                              |                        |                          |                                 |                                         |
| West Alderwood                 | 0<br>(0%)                    | 100<br>(12%)           | 400<br>(71%)             | 100<br>(17%)                    | 600                                     |
| Ash Way                        | 0<br>(0%)                    | 300<br>(12%)           | 900<br>(36%)             | 1,400<br>(52%)                  | 2,600                                   |
| Mariner                        | 1,000<br>(29%)               | 400<br>(12%)           | 200<br>(5%)              | 1,900<br>(54%)                  | 3,500                                   |
| SR 99 / Airport Road           | 0<br>(0%)                    | <100<br>(12%)          | 100<br>(44%)             | 100<br>(44%)                    | 200                                     |
| SW Everett Industrial          | 0<br>(0%)                    | <100<br>(12%)          | 0<br>(0%)                | 300<br>(88%)                    | 300                                     |
| SR 526 / Evergreen             | 0<br>(0%)                    | 200<br>(16%)           | 400<br>(37%)             | 500<br>(47%)                    | 1,000                                   |
| Everett Station                | 1,900<br>(37%)               | 600<br>(12%)           | 800<br>(15%)             | 1,800<br>(35%)                  | 5,200                                   |

NOTES:

- a) Mode of access totals rounded to nearest 100.
- b) Mode share percentages based on unrounded projected totals and may not correspond to rounded totals.
- c) Total station alightings may differ from sums of alightings by access mode due to rounding.

Table 4-13 summarizes the projected mode of access for riders who board at EVLE stations during the 3.5-hour PM peak period. Mode of access in 2046 under the initial phase condition was also modeled and is presented in this table.

**Table 4-13 PM 3.5-Hour Peak Period Mode of Access at EVLE Stations (2046) – Passengers Boarding**

| Station                        | Park-and-Ride <sup>a,b</sup> | Drop-off <sup>a,b</sup> | Walk/Bike <sup>a,b</sup> | Transit Transfer <sup>a,b</sup> | Total Passengers Boarding <sup>c</sup> |
|--------------------------------|------------------------------|-------------------------|--------------------------|---------------------------------|----------------------------------------|
| <b>Initial Phase Condition</b> |                              |                         |                          |                                 |                                        |
| West Alderwood                 | 0<br>(0%)                    | 100<br>(12%)            | 500<br>(59%)             | 200<br>(29%)                    | 800                                    |
| Ash Way                        | 0<br>(0%)                    | <100<br>(12%)           | 200<br>(44%)             | 200<br>(44%)                    | 400                                    |
| Mariner                        | 0<br>(0%)                    | 100<br>(12%)            | 0<br>(0%)                | 700<br>(88%)                    | 800                                    |
| SR 99 / Airport Road           | 0<br>(0%)                    | <100<br>(12%)           | 0<br>(0%)                | 400<br>(88%)                    | 400                                    |
| SW Everett Industrial          | 0<br>(0%)                    | <100<br>(12%)           | 100<br>(22%)             | 300<br>(66%)                    | 400                                    |
| <b>Full Build</b>              |                              |                         |                          |                                 |                                        |
| West Alderwood                 | 0<br>(0%)                    | 100<br>(12%)            | 500<br>(66%)             | 200<br>(22%)                    | 800                                    |
| Ash Way                        | 0<br>(0%)                    | 100<br>(12%)            | 300<br>(53%)             | 200<br>(35%)                    | 500                                    |
| Mariner                        | <100<br>(7%)                 | <100<br>(12%)           | 100<br>(30%)             | 100<br>(50%)                    | 200                                    |
| SR 99 / Airport Road           | 0<br>(0%)                    | <100<br>(12%)           | 100<br>(29%)             | 100<br>(59%)                    | 200                                    |
| SW Everett Industrial          | 0<br>(0%)                    | 100<br>(12%)            | 100<br>(18%)             | 400<br>(70%)                    | 500                                    |
| SR 526 / Evergreen             | 0<br>(0%)                    | 100<br>(16%)            | 100<br>(14%)             | 400<br>(70%)                    | 600                                    |
| Everett Station                | 200<br>(9%)                  | 200<br>(12%)            | 300<br>(15%)             | 1,200<br>(64%)                  | 1,900                                  |

NOTES:

- a) Mode of access totals rounded to nearest 100.
- b) Mode share percentages based on unrounded projected totals and may not correspond to rounded totals.
- c) Total station alightings may differ from sums of alightings by access mode due to rounding.

#### 4.2.4.1 West Alderwood Station

The primary mode of access for the West Alderwood Station is expected to be non-motorized, with the remaining passengers accessing the station via a transit transfer. Anticipated future changes to land use are expected to lend themselves towards increased walking and bicycling access to this station. No park-and-ride lot would be provided at this station; a sizeable parking lot is adjacent to the station, though since it is privately-owned and managed, no park-and-ride access was provided in the model projection.

#### **4.2.4.2 Ash Way Station**

The Ash Way Station is expected to be accessed predominantly by non-motorized modes and transit transfer passengers. The presence of the existing park-and-ride/bus facility is expected to sustain a high amount of transit transfers, while anticipated changes to nearby land use is expected to drive non-motorized passenger access.

#### **4.2.4.3 Mariner Station**

The primary mode of access for Mariner Station is expected to be transit transfers, followed by park-and-ride. Under the initial phase condition, 90% of passengers are anticipated to access Mariner Station by a transit transfer. This is due to this station being the transfer point for bus routes that are expected to connect to light rail at Everett Station when that station opens. Once the EVLE Project is fully completed, the combination of 550 additional park-and-ride spaces at this station and the rerouting of some bus routes to Everett Station instead, Mariner Station would reduce the proportion of transit transfer passengers to 66%, with park-and-ride passengers increasing to 29%.

#### **4.2.4.4 SR 99/Airport Road Station**

SR 99/Airport Road Station is expected to be primarily served by transit transfer passengers, as this station would be served by two Swift BRT lines. There may also be some passengers accessing via non-motorized modes to nearby lower-density, non-residential land uses.

#### **4.2.4.5 SW Everett Industrial Center Station**

The primary mode of access for the SW Everett Industrial Center Station is expected to be transit transfers, with the remaining proportion accessing the station via non-motorized modes. Passenger alightings or boardings are not expected to change significantly between the completion of the initial phase and full EVLE Project at this station.

#### **4.2.4.6 SR 526/Evergreen Station**

The SR 526/Evergreen Station would be accessed mostly via transit transfers, representing 56% of alightings and 83% of boardings in the PM peak period. Non-motorized access for alightings is expected to be higher due to anticipated changes in mixed-use and residential land use in the vicinity of the station.

#### **4.2.4.7 Everett Station**

Everett Station is projected to have highest passenger mode of access via transit transfers, owing to the many anticipated local and regional bus and heavy rail connections. The next-highest mode of access would be park-and-ride passengers, who would utilize an additional 1,000 park-and-ride spaces being provided by the EVLE Project in this station area. Non-motorized access was forecast to represent 19% of alightings and 21% of boardings in the PM peak period, as land uses around this station are expected to become more transit-oriented over time.

### **4.2.5 Transit Travel Time**

This section describes the travel times on the EVLE Project under the Build Alternatives compared to the No Build Alternative. The No Build travel times are based on current travel

times for bus routes that serve the same or similar trips as the EVLE Project. ST Express Route 512 connects Northgate Station in Seattle to Everett Station via I-5, and ST Express Route 513 connects Northgate Station to Seaway Transit Center near the Boeing Everett Production Facility via I-5 and SR 526. Everett Transit Route 3 connects Seaway Transit Center to Everett Station. Scheduled travel times on these routes are shown in Table 4-14.

**Table 4-14 2046 Build Alternatives Transit Travel Times (PM Peak)**

| Trip                                                    | Direction | 2046 No Build Travel Time (minutes) | 2046 Build Travel Time (minutes) |
|---------------------------------------------------------|-----------|-------------------------------------|----------------------------------|
| Lynnwood Transit Center to Everett Station              | Outbound  | 32 <sup>a</sup>                     | 29                               |
| Everett Station to Lynnwood Transit Center              | Inbound   | 24 <sup>a</sup>                     | 29                               |
| Lynnwood Transit Center to SW Everett Industrial Center | Outbound  | 42 <sup>b</sup>                     | 18                               |
| SW Everett Industrial Center to Lynnwood Transit Center | Inbound   | 57 <sup>b</sup>                     | 18                               |
| Everett Station to SW Everett Industrial Center         | Outbound  | 25 <sup>c</sup>                     | 11                               |
| SW Everett Industrial Center to Everett Station         | Inbound   | 26 <sup>c</sup>                     | 11                               |

SOURCE: Community Transit (2023); Everett Transit (2023).

NOTE:

- a) Via Sound Transit Route 512
- b) Via Sound Transit Route 513
- c) Via Everett Transit Route 3

Travel times are similar for both directions under the Build Alternatives due to light rail operating within its own right-of-way. Travel times under the Build Alternatives would be lower than the No Build Alternative between all major destination pairs except from Everett Station to Lynnwood Transit Center. Despite the longer travel time between these two locations in the Build Alternative, EVLE would provide more consistent travel times compared to bus travel under the No Build Alternative due to the light rail operating within its own right-of-way. The Build Alternatives would also offer broader regional connectivity via downtown Seattle, where transfers to Ballard and Tacoma would be available, whereas the No Build Alternative would require a transfer between bus and light rail at Lynnwood Transit Center.

#### 4.2.6 Transit LOS Measures

Transit LOS was analyzed for service frequency, hours of service, and reliability to describe transit performance in the No Build and Build Alternatives in 2046. The transit LOS methodology used the same procedures and metrics described in Section 3.2.4.

In 2046, the regional Link system is assumed to have four lines. Transfers among the first three would be possible in downtown Seattle.

- Ballard to Tacoma Dome.
- West Seattle to Everett.

- Mariner to Redmond.
- South Kirkland to Issaquah.

Transit routes were analyzed at four screenline locations along the I-5 corridor: 44th Avenue W, I-405, 128th Street SW, and SR 526. Screenlines are imaginary lines drawn across one or more roadways to compare aggregate changes in traffic conditions.

#### 4.2.6.1 Frequency

Table 4-15 shows the average transit headways and LOS for service frequencies for the 2046 No Build and Build Alternatives during the PM peak hour at the four screenline locations. The 2046 No Build service frequency would improve compared to existing conditions because service levels would be modified for integration with the Lynnwood Link Extension (LLE). In connection with LLE, service from the study area would be refocused to connect to the regional light rail system at Lynnwood City Center Station. Direct light rail transit service between the study area and North Seattle (Northgate and Lynnwood), Federal Way, Tacoma Dome, and Bellevue/Redmond would not be available with the No Build Alternative.

With the Build Alternatives, EVLE PM peak headways would be every 6 minutes on each of the 2 and 3 Lines, with interlining between these lines providing service at 3-minute headways between downtown Seattle and Mariner Station. This would provide a service improvement to LOS A for light rail connections between Everett and many of the Puget Sound regional destinations. EVLE would still require a transfer to Ballard, Issaquah, and regional destinations south of downtown Seattle (e.g., SeaTac, Federal Way, Tacoma Dome); however, the frequency of the light rail service and the ease of transfer between light rail lines would offset the transfer time. When headways are averaged across all transit services at each screenline (including Link light rail and bus transit), service frequency LOS is improved at all screenlines under the Build Alternatives compared to the No Build Alternative, except for at the I-5 at SR 526 screenline, where LOS remains the same but average headways are lower in the Build Alternatives.

**Table 4-15 2046 No Build and Build Alternatives Transit Service Frequency (PM Peak)**

| Screenline Location    | No Build Alternative      |                  | Build Alternatives        |                  |
|------------------------|---------------------------|------------------|---------------------------|------------------|
|                        | Average Headway (minutes) | Level of Service | Average Headway (minutes) | Level of Service |
| I-5 at 44th Avenue W   | 22                        | D                | 18                        | C                |
| I-5 at I-405           | 19                        | C                | 6                         | A                |
| I-5 at 128th Street SW | 21                        | D                | 19                        | C                |
| I-5 at SR 526          | 19                        | C                | 17                        | C                |

#### 4.2.6.2 Span

Table 4-16 shows the LOS for weekday hours of service for the 2046 No Build and Build Alternatives at all four screenline locations. The 2046 No Build Alternative transit hours of service would be extended longer than the existing span of service due to service improvements and transit integrations with LLE. With the No Build Alternative, the hours of service at all screenlines would be improved.



Under the Build Alternative, EVLE would operate 20 hours per day Monday through Saturday and 18 hours on Sunday, resulting in LOS A for hours of service of light rail. When averaged across all transit services at each screenline (including Link light rail and bus transit), transit span of service would improve at all screenlines under the Build Alternative compared to the No Build Alternative.

**Table 4-16 2046 No Build and Build Alternatives Transit Span of Service (Weekday)**

| Screenline Location    | No Build Alternative            |                  | Build Alternatives              |                  |
|------------------------|---------------------------------|------------------|---------------------------------|------------------|
|                        | Average Span of Service (Hours) | Level of Service | Average Span of Service (Hours) | Level of Service |
| I-5 at 44th Avenue W   | 19                              | A                | 20                              | A                |
| I-5 at I-405           | 17                              | B                | 20                              | A                |
| I-5 at 128th Street SW | 19                              | A                | 20                              | A                |
| I-5 at SR 526          | 20                              | A                | 22                              | A                |

#### 4.2.6.3 Reliability

The future reliability of bus service with the No Build Alternative is expected to degrade compared with existing conditions. Current bus services across the four screenline locations already operate at LOS C, D, or E. By 2046, speeds on key roadways such as I-5, I-5 HOV lanes, and major arterial streets are expected to decrease during the PM peak period (see Section 4.3). Furthermore, some buses are expected to be crowded, resulting in longer boarding and alighting times, which leads to more delay and lower schedule reliability at bus stops. If buses operate at higher occupancy rates, bus drivers might be forced to skip picking up additional passengers. Poor bus reliability causes passengers to be less confident about arriving at the scheduled time. As a result, passengers may be required to travel on earlier scheduled services to ensure on-time arrival at their destination, or they may shift to an alternate mode of travel. Even though bus transit speed and reliability improvements are being planned along portions of some roadways in the project corridor, the overall transit reliability is not expected to improve substantially beyond existing conditions, as buses would continue to mainly operate within general traffic.

With the Build Alternatives, light rail would provide transit service at reliability LOS A, as the alignment allows for operation in an exclusive right-of-way with no at-grade crossings in the study area. Light rail reliability in the EVLE corridor could be affected by unexpected delays at station areas or by system delays outside of the EVLE corridor, where light rail would be operating at-grade with traffic.

### 4.3 Arterial and Local Street Operations

This section describes the following effects of the No Build and Build Alternatives on arterial and local streets in the study area: 2046 traffic volume forecasts; expected traffic generated at stations; changes in access, circulation, and traffic control; and intersection operations.

### 4.3.1 Traffic Forecasts

PSRC's regional travel demand model was used as the basis for developing future traffic forecasts. Future travel demand models were developed for the 2040 and 2050 No Build and Build Alternatives. These models were adapted from their initial coding to account for planned improvement projects and the EVLE Project. PSRC's 2018 travel demand model was used as the base existing year. The No Build project list for the project is consistent with the assumptions in PSRC's No Build conditions (see Attachment F). Table 4-17 and Table 4-18 summarize the network assumptions included in each model scenario.

**Table 4-17 Study Assumptions**

| Condition            | Existing Year (2023) | Opening Year (2037) | Horizon Year (2046) | Notes                                                                                                                                                                  |
|----------------------|----------------------|---------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Existing             | X                    |                     |                     | Includes land use, roadway, and transit network conditions for the year 2023.                                                                                          |
| No Build Alternative |                      | X                   | X                   | Based on travel demand forecasts and an assumed list of constructed background projects and transit service modifications.                                             |
| Build Alternatives   |                      | X                   |                     | The opening year condition assumes the project is constructed and operating as far as SW Everett Industrial Center Station, but no parking facilities are constructed. |
| Build Alternatives   |                      |                     | X                   | The horizon year condition assumes the full-length project is constructed and operating, including parking facilities.                                                 |

**Table 4-18 Future Year Traffic Analysis Scenarios**

| Scenario                      | Analysis Year | Model Year | Roadway Network Year | Transit Network Year | EVLE                                          |
|-------------------------------|---------------|------------|----------------------|----------------------|-----------------------------------------------|
| No Build (Initial Phase Year) | 2037          | 2040       | 2040                 | 2030                 | No                                            |
| Build (Initial Phase Year)    | 2037          | 2040       | 2040                 | 2040                 | Yes (to SW Everett Industrial Center Station) |
| No Build (Horizon Year)       | 2046          | 2050       | 2050                 | 2030                 | No                                            |
| Build (Horizon Year)          | 2046          | 2050       | 2050                 | 2040                 | Yes (full project)                            |

Background traffic growth rates were developed for each station area from the PSRC travel demand models. A perimeter was defined around each station's study area. The total peak hour entering volume on roadway links crossing the perimeter was calculated for each Existing, No Build, and Build travel demand model. An average growth rate was calculated by dividing the total percent growth in vehicles entering the station area perimeter from the existing to future year by the total number of years difference.

#### 4.3.1.1 Build Alternatives

The average annual traffic growth rates were developed via the methodology outlined in the Traffic Forecasting Technical Memorandum in Attachment E.

Table 4-19 provides the average annual growth rates developed for each station area under the Build Alternatives. Station areas that showed a small annual decrease in volume were assumed to have no growth and are shaded in gray.

**Table 4-19 Average Annual Traffic Peak Hour Growth Rates – Build**

| # | Subarea                                     | 2037 |      | 2046 |      |
|---|---------------------------------------------|------|------|------|------|
|   |                                             | AM   | PM   | AM   | PM   |
| 1 | West Alderwood                              | 1.0% | 0.7% | 1.2% | 0.8% |
| 2 | Ash Way                                     | 0.7% | 0.7% | 0.7% | 0.9% |
| 3 | Mariner                                     | 0.2% | 0.4% | 0.4% | 0.4% |
| 4 | SR 99/Airport Road and OMF Site F           | 1.0% | 1.1% | 1.0% | 1.2% |
| 5 | SW Everett Industrial Center and OMF Site E | 0.8% | 1.1% | 0.8% | 0.8% |
| 6 | SR 526/Evergreen                            | 1.3% | 0.7% | 1.3% | 0.9% |
| 7 | Everett Station                             | 2.5% | 2.1% | 1.9% | 2.0% |
| 8 | OMF Site B                                  | 0.0% | 0.1% | 0.0% | 0.0% |

Compared to the average annual traffic growth rates in the No Build Alternative presented in Table 4-20, the Build Alternatives would have equal or lesser average annual traffic growth rates for all peak periods in 2037 and 2046, except for at Ash Way in the 2046 PM peak (which would be 0.1% greater in the Build Alternatives compared to No Build). This lower growth rate in the Build Alternatives compared to the No Build Alternative is likely because some car trips would shift to transit as well as other factors.

In addition to the background traffic growth, the Sound Transit Incremental Ridership Model outputs were used to develop project-related vehicle trips. The model provides number of riders accessing the stations via Walk, Auto, or Transfer (Transit) modes. Assumed vehicle occupancies for each access mode were combined with the number of riders for each access mode to calculate the total number of vehicles generated by each station in the peak hour.

#### 4.3.1.2 No Build Alternative

Table 4-20 provides the average annual growth rates developed for each station area under the No Build Alternative. Station areas that showed a small annual decrease in volume were assumed to have no growth and are shaded in gray.

**Table 4-20 Average Annual Traffic Peak-Hour Growth Rates – No Build**

| # | Subarea        | 2037 |      | 2046 |      |
|---|----------------|------|------|------|------|
|   |                | AM   | PM   | AM   | PM   |
| 1 | West Alderwood | 1.1% | 0.7% | 1.3% | 0.9% |
| 2 | Ash Way        | 0.7% | 0.8% | 0.8% | 0.8% |
| 3 | Mariner        | 0.4% | 0.4% | 0.5% | 0.5% |

| # | Subarea                                     | 2037 |      | 2046 |      |
|---|---------------------------------------------|------|------|------|------|
|   |                                             | AM   | PM   | AM   | PM   |
| 4 | SR 99/Airport Road and OMF Site F           | 1.1% | 1.2% | 1.2% | 1.3% |
| 5 | SW Everett Industrial Center and OMF Site E | 0.9% | 1.1% | 0.9% | 0.9% |
| 6 | SR 526/Evergreen                            | 1.4% | 0.9% | 1.4% | 1.1% |
| 7 | Everett Station                             | 2.5% | 2.2% | 1.9% | 2.1% |
| 8 | OMF Site B                                  | 0.0% | 0.2% | 0.0% | 0.0% |

All regional transportation projects noted in Table 4-5 were included in the No Build Alternative analysis. In addition to those major projects, multiple municipal planned improvements that would add roadway capacity, including new or widened roadways and intersection signalization or improvements, were included in the No Build transportation network.

### 4.3.2 Operational Impacts

#### 4.3.2.1 Traffic Circulation, Property Access, and Traffic Control

This section describes the property access, circulation, and roadway and traffic conditions for the Build Alternatives compared to the No Build Alternative, organized by segment.

The Build Alternatives could have some impact on property access, traffic circulation patterns, and traffic control, depending on the alternative and station options. The traffic circulation, property access, and traffic control discussion in this section is based on the conceptual light rail guideway and station area plans.

#### *Impacts Common to All Build Alternatives*

Even though some of the Build Alternative alignments would be adjacent to I-5, there would be no circulation or access impacts on I-5 because the number and configuration of freeway lanes, interchange access points, and freeway shoulders would be maintained. The Build Alternatives would be located near six I-5 interchanges—196th Street SW, I-405, 164th Street SW, 128th Street SW, SR 526/SR 527, and Broadway/41st Street—but would be grade-separated above or below the interchange ramps and cross streets. There would be no changes to intersection control or traffic circulation for I-5.

WSDOT requires access to perform routine maintenance activities along I-5. Maintenance activities include mowing, stormwater facility maintenance, spraying noxious weeds, accessing Intelligent Transportation Systems (ITS) equipment and signs, and removing invasive plant species. Typical maintenance activities, such as mowing, are performed adjacent to the edge of pavement (within a 10-foot-wide area). To perform these maintenance activities, WSDOT typically parks vehicles in the shoulder and provides advance warning signage to drivers. The current design of the Build Alternatives would not affect this type of maintenance activities between I-5 and the light rail guideway from the I-5 shoulder.

For maintenance access of the guideway, such as servicing stormwater facilities and removing invasive weeds, access would be provided beneath the guideway, where there would be vertical clearances of 16.5 feet or more from local streets.

## **West Alderwood Segment**

### *Impacts Common to All West Alderwood Segment Alternatives*

There would be changes to property access and local circulation for all Build Alternatives and design options in the West Alderwood Segment. An emergency access point to the guideway away from the station areas would be provided via a new driveway on Alderwood Mall Boulevard between 40th Avenue W and 196th Street SW for all alternatives except for the design options. This driveway would not be open to general-purpose traffic. All alternatives would require some driveway reconstruction and modifications to driveway access on the east side of 33rd Avenue W north of Alderwood Mall Boulevard and on Alderwood Mall Boulevard southwest of 40th Avenue W.

### *Alternative ALD-1B*

Station ALD-B would be located on the existing parking lot on the south side of Alderwood Mall, between 33rd Avenue W and Alderwood Mall Parkway. A one-way separated driveway from 28th Avenue W to 29th Avenue W would provide a station loop road for access to bus bays and layover areas for transit vehicles. Passenger pickup and drop-off areas would be provided on the east side of the station along the existing mall access road. The existing intersection at 28th Avenue W and the mall access road with all-way stop control would be reconfigured but would remain as all-way stop control. The existing intersection at 29th Avenue W and the mall access road would become reconfigured as an intersection with all-way stop control.

### *Alternative ALD-1B with Alderwood Mall Boulevard Design Option*

The Alderwood Mall Boulevard Design Option would not provide the emergency access point driveway on Alderwood Mall Boulevard between 40th Avenue W and 196th Street SW. Instead, the design option would require reconstruction of the existing cul-de-sac at the eastern end of 195th Place SW. This cul-de-sac reconstruction would include driveway reconstruction to preserve local property access upon completion. Outside of these impacts, this design option would exhibit no differences from Alternative ALD-1B concerning impacts to traffic circulation, property access, and traffic control, aside from those mentioned in the impacts common to all West Alderwood Segment Build Alternatives.

### *Alternative ALD-2D*

Station ALD-D would be located on the existing parking lot on the west side of Alderwood Mall on the east side of 33rd Avenue W between 188th Street SW and 184th Street SW. A station loop road accessed via a new signalized intersection on 33rd Avenue W between 188th Street SW and 184th Street SW would provide access to bus bays and layover areas for transit vehicles. Passenger pickup and drop-off areas would be provided east of the station platform along the existing mall access road. On-street active bus bays along both curb faces of 33rd Avenue W would remain, and additional paratransit access would be provided in cut-outs along the east curb face of 33rd Avenue W.

### *Alternative ALD-2D with Alderwood Mall Boulevard Design Option*

An emergency access point to the guideway would be provided via a driveway on the mall access road east of 33rd Avenue W in Alternative ALD-2D that is not present in the Alderwood Mall Boulevard Design Option. This driveway would not be open to general-purpose traffic. Guideway columns would also be located in the existing parking lot on the north side of Alderwood Mall, where the guideway runs parallel to 184th Street SW along its south side



between 33rd Avenue W and Alderwood Mall Parkway. These columns would result in some changes in traffic circulation within the parking lot of Alderwood Mall.

#### *Alternative ALD-2F*

Station ALD-F would be located on the existing parking lot on the north side of Alderwood Mall and south of 184th Street SW between 33rd Avenue W and Alderwood Mall Parkway. The westernmost portion of this existing parking lot would be reconfigured to extend the existing mall access road to join the intersection of 184th Street SW and 33rd Avenue W. A station loop road on this extension of the mall access road would provide access to bus bays, layover areas for transit vehicles, and paratransit. On-street active bus bays would also be located along both the south and north sides of 184th Street SW between 33rd Avenue W and the existing signalized intersection with the mall access road. Passenger pickup and drop-off would be provided south of the station platform, along the north side of the existing mall access road.

Guideway columns would also be located in the existing parking lot on the north side of Alderwood Mall, where the guideway runs parallel to 184th Street SW along its south side between 33rd Avenue W and Alderwood Mall Parkway. These columns would result in some changes in traffic circulation within the parking lot of Alderwood Mall.

#### *Alternative ALD-2F with Alderwood Mall Boulevard Design Option*

The Alderwood Mall Boulevard Design Option would have the same impacts to traffic circulation, property access, and traffic control as Alternative ALD-2F, aside from those mentioned in the impacts common to all West Alderwood Segment Build Alternatives.

### **Ash Way Segment**

#### *Impacts Common to All Ash Way Segment Alternatives*

All Build Alternatives in the Ash Way Segment would require an emergency access point to the guideway via a driveway on 21st Avenue W on the west side of I-5. This driveway would not be open to general-purpose traffic. Other impacts both inside and outside of station areas specific to each alternative are described in the subsections below.

#### *Alternative ASH-1A*

Station ASH-A would be located on the northeast half of the existing Ash Way Park-and-Ride parking lot. The existing bus loop driveway access on Ash Way would be replaced with a signalized intersection. This existing bus loop would be reconfigured to a station loop road to provide access to bus bays, layover access for transit vehicles, and paratransit. The existing access for transit vehicles to the transit lanes on the median of I-5 via the overcrossing would be maintained. Passenger pickup and drop-off would be provided on the south side of the station platform along a separated one-way loop in a reconfigured section of the park-and-ride parking lot.

Outside the station area, there would be some changes to property access and local circulation for Alternative ASH-1A. Maintenance driveways would be constructed at the intersection of 170th Street SW and 20th Avenue W, and on 4th Avenue W between 9th Place W and 132nd Street SW. Additionally, the intersection of 140th Street SW and 9th Place W would be reconfigured as a cul-de-sac, and a driveway would be extended from the north edge of this cul-de-sac. These driveways would not be open to general-purpose traffic. An extended driveway

terminating in a cul-de-sac would be constructed at the intersection of Ash Way and 153rd Street SW, extending towards the east and terminating west of I-5.

Alternative ASH-1A in conjunction with Alternative MAR-1B would also require an additional driveway access to the emergency access point, extending from the east end of 178th Street SW. This driveway would not be open to general-purpose traffic.

#### *Alternative ASH-2D*

Station ASH-D would be located on the northeast side of the I-5/164th Street SW interchange. The station would be accessed via a reconstructed and reconfigured Motor Place that joins onto an intersection with 164th Street SW as 14th Place W. A single driveway on Motor Place would provide access to a station loop road for bus bays, layover access for transit vehicles, and paratransit. Two driveways on Motor Place would provide access to a one-way passenger pickup and drop-off zone located east of the station platform. The reconfigured 14th Place W/Motor Way would include a sidewalk on the east side and a two-way left-turn lane on the entire segment between 164th Street SW and 161st Street SW. A two-way access road would be reconfigured along the existing alignment of Motor Place, allowing right-turn only movements from Motor Place onto WB 164th Street SW.

Outside the station area, there would be some changes to property access and local circulation for Alternative ASH-2D. An emergency access point to the guideway would be provided by extending 142nd Place SW west towards I-5. A driveway off of the intersection of 17th Avenue W and 169th Place SW would be constructed to access a signal bungalow and drainage pond. There would also be driveways constructed off of Motor Place, Darben Place, Meadow Road, and 13th Place SW to access traction power substations, signal bungalows, and drainage ponds. These driveways would not be open to general-purpose traffic.

### **Mariner Segment**

#### *Impacts Common to All Mariner Segment Alternatives*

Snohomish County plans to make improvements to 130th Street SW and 130th Street SE, including the construction of a new roadway segment and bridge over I-5 to connect these two road segments. The changes to traffic circulation and local property access due to the County's planned new 130th Street SW segment integrate with and contribute to the overall station area. Other impacts specific to each Mariner Segment Build Alternative are outlined in the subsections below.

#### *Alternative MAR-1B*

Station MAR-B would be located on the block bounded on the north by 128th Street SW, on the west by 8th Avenue W, and on the south by the planned 130th Street SW. The eastern extent of the station reaches 5th Place W. A driveway on 8th Avenue W provides access to a station loop road for bus bays, layover access for transit vehicles, and paratransit. Another driveway accessed via the intersection of 128th Street SW and 5th Place W would provide passenger pickup and drop-off facilities. Existing BRT bays on both north and south sides of 128th Street SW east of the intersection with 5th Place W would be shifted approximately 100 feet west, and new bus bays would also be provided west of the shifted BRT bays. Alternative MAR-1B would include a parking structure on the corner of the new 130th Street SW and 4th Avenue W with entrances on 130th Street SW and 4th Avenue W.

*Alternative MAR-1B with Surface Parking Design Option*

Alternative MAR-1B with Surface Parking Design Option would have the same impacts to traffic circulation, property access, and traffic control as Alternative MAR-1B except instead of a parking structure, the alternative would include a surface lot in the same location with entrances on 130th Street SW and 130nd Street SW.

*Alternative MAR-2D*

Station MAR-D would be located on the block bounded on the north by the planned 130th Street SW, on the east by 4th Avenue W, on the south by 132nd Street SW, and on the west by 8th Avenue W. Driveways on 132nd Street SW and the planned 130th Street SW on the west side of the station platform would provide access to a transit-access-only station access road for bus bays and layover access. There would be no general-purpose traffic through these driveways, and transit vehicles may have through-access between the two bounding streets. On the east side of the station platform, a driveway on 132nd Street SW would provide access to a passenger pickup and drop-off loop, and a driveway on the planned 130th Street SW would provide access to a paratransit and shuttle loop.

Outside the station area, a driveway would be constructed on the west side of 8th Avenue W north of 128th Street SW. This driveway would not be open to general-purpose traffic.

*Alternative MAR-2D with Surface Parking Design Option*

Alternative MAR-2D with Surface Parking Design Option would have the same impacts to traffic circulation, property access, and traffic control as Alternative MAR-2D.

**SR 99/Airport Road Segment***Impacts Common to All SR 99/Airport Road Segment Alternatives*

All station locations would have changes to property access, traffic circulation, and signal control resulting from the alternatives in the SR 99/Airport Road Segment. All Build Alternatives would provide reconstruction and reconfiguration of the intersection of SR 99 and Airport Road. Apart from the approach on north Airport Road that would have one additional travel lane, all other parts of the intersection would retain the existing number of travel lanes. The lane configuration on both approaches along SR 99 remain the same. The NB approach on Airport Road would be reconfigured to one left-turn lane onto SB SR 99, two general-traffic through-travel lanes continuing on NB Airport Road, and one HOV through-travel lane allowing right-turn movements for general traffic. The SB approach on Airport Road would be reconfigured to one left-turn lane onto NB SR 99, two general-traffic through-travel lanes continuing on SB Airport Road, one HOV through-travel lane continuing on SB Airport Road, and one general traffic right-turn-only lane. Raised medians on all four approaches to the intersection of SR 99/Airport Road would be provided. All Build Alternatives would provide a new signalized intersection at Airport Road/Center Road, though the intersection configuration is specific to each alternative.

*Alternative AIR-1A*

Station AIR-A would be located on the north corner of the intersection of SR 99/Airport Road. An extension of the Center Road alignment would be provided, connecting the intersections of SR 99/Center Road and Airport Road/Center Road with a new segment of Center Road between SR 99 and Airport Road. These intersections would be signalized, with a raised median provided along the approaches from both directions on SR 99 and on Airport Road.

The signalized intersection at SR 99/Center Road would have reconfigured lanes on the approaches along SR 99. NB SR 99 would be reconfigured to one left-turn lane onto the new Center Road segment, two general-traffic through-travel lanes, and one bus-only through-travel and right-turn lane onto the existing Center Road east of SR 99. SB SR 99 would be reconfigured into one left-turn lane onto the existing Center Road east of SR 99, two general-traffic through-travel lanes, and one general-traffic through-travel and right-turn lane onto the new Center Road segment. The one approach lane from each direction of Center Road onto SR 99 would provide turning and travel movements to the right, left, and through. Two driveways on the east side of SR 99 between Airport Road and Center Road would be reconstructed to provide continued access to the private businesses and parking lot at that location.

The signalized intersection at Airport Road/Center Road would have reconfigured lanes on the approaches along Airport Road. NB Airport Road would be reconfigured to one left-turn lane onto the existing Center Road segment west of Airport Road, two general-traffic through-travel lanes, and one general-traffic through-travel and right-turn lane onto the new Center Road segment. SB Airport Road would be reconfigured into one left-turn lane onto the new Center Road segment, two general-traffic through-travel lanes, and one general-traffic through-travel and right-turn lane onto the existing Center Road segment west of Airport Road. The one approach lane from each direction of Center Road onto Airport Road would provide turning and travel movements to the right, left, and through.

The new segment of Center Road between SR 99 and Airport Road would be open to general-purpose traffic, and a driveway on this segment to the east of the station platform would provide access to a passenger pickup and drop-off loop and paratransit. On-street active bus bays would be located on the east and west sides of Airport Road between SR 99 and Center Road, as well as on the east side of SR 99 north of the intersection with Airport Road and on the west side of SR 99 south of the intersection with Airport Road.

Outside the station area, several new maintenance driveways would provide access to the guideway. Two driveways would be located on the east side of Airport Road, south of the midpoint between the intersections Airport Road/112th Street SW and Airport Road/SR 99; one driveway would be located on the south side of 112th Street SW east of Airport Road, and the other would be located on the south side of Holly Drive east of Airport Road. These driveways would not be open to general-purpose traffic.

#### *Alternative AIR-2B*

Station AIR-B would be located on the west corner of the intersection of SR 99/Airport Road. A new signalized intersection is provided at the intersection of Airport Road/Center Road, with raised medians provided on the approaches to this intersection from both directions of Airport Road. Center Road would also be realigned so that the Airport Road/Center Road intersection would be approximately 100 feet further to the north. A new station loop road providing two-way traffic flow would be constructed, connecting the south side of Center Road west of Airport Road and the SB lanes on the east side of SR 99 south of Airport Road. The intersection of the new station loop road and SR 99 would allow right-turn movements from the station loop road onto SB SR 99. Left-turn movements would not be permitted due to the construction of a new raised median on SR 99. This intersection would also allow right-turn movements from SB SR 99 into the station loop road.

The signalized intersection at Airport Road/Center Road would have reconfigured lanes on the approaches along Airport Road. NB Airport Road would be reconfigured to one left-turn lane,

two general-traffic through-travel lanes, and one bus only lane. SB Airport Road would be reconfigured into two general-traffic through-travel lanes and one general-traffic through-travel and right-turn lane. The one approach lane from Center Road onto Airport Road would provide turning movements to the right and left.

The new station loop road would provide a passenger pickup and drop-off zone, paratransit access, and transit vehicle layover access. On-street active bus bays would be located on the east and west sides of Airport Road between SR 99 and Center Road, as well as on the east side of SR 99 north of the intersection with Airport Road, and on the west side of SR 99 south of the intersection with Airport Road. The Swift bus stations on Airport Road on the south side of SR 99 would be relocated to the north side of the intersection.

Outside the station area, several new maintenance driveways would be provided for access to the guideway. One driveway would be provided on the north side of the realigned Center Road west of Airport Road. One driveway would be provided via an existing driveway on the west side of Airport Road near the midpoint of the block between 112th Street SW and Center Road. One driveway would be provided on the south side of Holly Drive east of Airport Road. These driveways would not be open to general-purpose traffic.

### **SW Everett Industrial Center Segment**

#### *Impacts Common to All SW Everett Industrial Center Segment Alternatives*

All Build Alternatives in the SW Everett Industrial Center Segment would require a driveway on the south side of 103rd Street SW east of Airport Road to provide maintenance access to the guideway. Other impacts to traffic circulation, property access, and traffic control specific to each Build Alternative are outlined in the subsections below.

#### *Alternative SWI-1A*

Station SWI-A would be located on the northwest side of Casino Road. A station loop accessed via a new signalized intersection on Casino Road would provide bus bays, transit vehicle layover access, and paratransit access. On-street active bus bays would also be constructed on both sides of Casino Road: two on the northwest side of the intersection and two on the southeast side of the intersection.

The new signalized intersection would have reconfigured lanes on the approaches along Casino Road. EB Casino Road would be reconfigured to one left-turn lane for transit vehicle access to the station loop road and one general-traffic through-travel lane. WB Casino Road would remain a single lane, allowing through-travel and right-turn movements for transit vehicles into the station loop road. The station loop road approach to the signalized intersection would provide for transit vehicle turning movements onto either EB or WB Casino Road. All movements in and out of the station loop road would be restricted to transit vehicle access only.

A second, non-signalized intersection of the station loop road and Casino Road would be constructed approximately 400 feet west of the signalized intersection. This intersection would provide access to a passenger pickup and drop-off zone and shuttle access.

Outside the station area, several features may impact parking lot traffic circulation along the guideway with minor property access impacts. Along the southern portion of the guideway parallel to Airport Road, guideway columns would be constructed within parking lots beginning from south of Kasch Park Road to north of 100th Street SW. Two driveways on 27th Avenue W south of the intersection with 29th Avenue W would provide maintenance access to the



guideway from both sides of 27th Avenue W. Curb-face improvements would be provided to an existing portion of a parking lot southeast of the Airport Road/Kasch Park Road intersection and to an existing access road north of Casino Road between Airport Road and the station area. These portions of right-of-way with improved curb faces would provide access for maintenance vehicles.

#### *Alternative SWI-1A with Lower Design Option*

Alternative SWI-1A with Lower Design Option would have the same impacts to traffic circulation, property access, and traffic control within the station area as Alternative SWI-1A.

Outside the station area, the Lower Design Option would require the segment of Casino Road between the station area and 18th Avenue W to be shifted south by approximately 90 feet to accommodate the lower guideway in the north end of the segment.

#### *Alternative SWI-1B*

Station SWI-B would be located in the block bounded on the north by Casino Road, on the west by Airport Road, and on the south by Kasch Park Road. The station would feature a transit-access-only station loop road accessed via two points: a new driveway on the north side of Kasch Park Road and a new signalized intersection on the south side of Casino Road. This station loop road would provide access to bus bays, layover access for transit vehicles, and paratransit. The existing on-street active bus bays on the east side of Airport Road north of Kasch Park Road and on the west side of Airport Road south of Kasch Park Road would remain in service.

The new signalized intersection at Casino Road and the station loop road is located approximately 200 feet east of Airport Road. The existing on-street bus bay on the north side of Casino Road would remain in place, while the one on the south side of Casino Road would be relocated approximately 60 feet west such that it would lie between the new signalized intersection and the intersection of Airport Road/Casino Road. The station loop road would approach the new signalized intersection from the south, and a passenger pickup and drop-off zone would be accessed via a driveway in the north direction of the intersection.

The current lane configuration on Casino Road of one through lane in each direction separated by a two-way left turn lane would be reconfigured at the new signalized intersection. The new configuration would retain the three-lane width of Casino Road. The EB approach would be reconfigured to one left-turn lane into the passenger pickup and drop-off zone and one lane for through-travel and right turns into the station loop road. The WB approach would feature one left-turn lane into the station loop road and one lane for through-travel and right turns into the passenger pickup and drop-off zone.

Within the station area, a driveway on the south side of Kasch Park Road would provide maintenance access to the guideway and to a drainage pond. Outside the station area, several features may impact parking lot traffic circulation along the segment with minor property access impacts. Along the southern portion of the guideway parallel to Airport Road, guideway columns would be constructed within parking lots beginning from south of Kasch Park Road to north of 100th Street SW. Two driveways on 27th Avenue W south of the intersection with 29th Avenue W would provide maintenance access to the guideway from both sides of 27th Avenue W. Curb face improvements would be provided to an existing access road on the north side of Casino Road, approximately 800 feet east of the Casino Road/Airport Road intersection. These portions of right-of-way with improved curb faces would provide access for maintenance vehicles.

*Alternative SWI-1C*

Station SWI-C would be located on Airport Road near the 29th Avenue W underpass. 27th Avenue W would be realigned to connect with 100th Street SW to provide access to the station; this would also be a new connection for general traffic between 94th Street SW and 100th Street SW where there is currently only a connection through private parking lots. Buses would access the station via a transit-access-only loop connected to 27th Avenue W. 29th Avenue W would also be realigned to accommodate a pick-up/drop-off loop, transit employee parking, and paratransit access.

Outside the station area, guideway columns would be constructed within the parking lot northeast of the Airport Road/94th Street SW intersection. These columns may impact traffic circulation within the lot of a private business. Curb-face improvements would also be provided to an existing portion of a parking lot southeast of the Airport Road/Kasch Park Road intersection and to an existing access road on the north side of Casino Road, approximately 800 feet east of the Casino Road/Airport Road intersection. These portions of right-of-way with improved curb faces would provide access for maintenance vehicles.

**SR 526/Evergreen Segment***Impacts Common to All SR 526/Evergreen Segment Alternatives*

All Build Alternatives in the SR 526/Evergreen Segment would have changes to property access and traffic circulation in several locations. A change common to all Build Alternatives is the reconstruction of the south end of Xavier Way into a cul-de-sac, with two maintenance driveways being extended from the east and west sides of this cul-de-sac providing maintenance access to the guideway. A driveway improvement and extension would be provided to the west end of Puget Drive that may also alter property access. Other changes specific to each Build Alternative are outlined in the subsections below.

*Alternative EGN-1A*

Station EGN-A would be located in the block bounded on the south by the SR 526 WB on-ramp from Evergreen Way, on the west by Beverly Lane, and on the east by Evergreen Way. A station access road would be constructed on the north side of the station platform that would connect the south end of Beverly Lane to the west side of Evergreen Way. This station access road would provide a passenger pickup/drop-off zone and paratransit access. Two one-lane driveways would connect the station access road to Evergreen Way. Entry into the station access road would be via Beverly Lane or a right turn on SB Evergreen Way and exit from the station access road would be via Beverly Lane or a right turn onto SB Evergreen Way. A raised median would be constructed on the north approach of Evergreen Way to the SR 526 interchange. This median would prevent access between the station access road and NB lanes on Evergreen Way, while also providing a pedestrian refuge in the median while crossing Evergreen Way.

Existing on-street bus bays on Evergreen Way by the intersection with 79th Place SE would be shifted approximately 300 feet south of their current locations, such that all future on-street bus bays would be located south of the intersection with 79th Place SE. Two Swift bus stations would be constructed on Evergreen Way north of SR 526. A maintenance driveway would also be constructed on the south end of 79th Place SE west of the station platform.

Outside the station area, there would be several changes to local traffic circulation and property access. Maintenance driveways and access to the guideway would be provided off of 8th Street

SW east of Hardeson Road, at the intersection of Upper Ridge Road and 82nd Place SW, on the east end of 82nd Place SW, and on the southwest corner of the E Glen Drive loop. A maintenance driveway would also be provided on the south side of E Casino Road, opposite Cascade High School. These driveways would not be open to general-purpose traffic.

#### *Alternative EGN-2B*

Station EGN-B would be located in the block bounded on the north by the SR 526 EB off-ramp onto Evergreen Way, on the east by Evergreen Way, and on the south by W Casino Road. A station loop road would be constructed south of the station platform and north of W Casino Road. This station loop road would provide a passenger pickup/drop-off zone and paratransit access. This station loop road would be accessed via an existing signalized intersection on W Casino Road that currently serves the parking lot of several private businesses. Existing on-street bus bays on W Casino Road would remain in their current locations.

A driveway would be constructed to the west of the station area on the north side of W Casino Road. This driveway would provide maintenance access to two drainage ponds and would not be open to general-purpose traffic.

Outside the station area, there would be several changes to local traffic circulation and property access. Alternative EGN-2B would require realignment of W Casino Road between the east end of this segment and 18th Avenue W to accommodate the guideway, as well as two driveways on the north side of W Casino Road to access drainage ponds and driveways on both east and west sides of the north end of Upper Ridge Road south of SR 526 to provide emergency access to the guideway. Alternative EGN-2B would also include a maintenance driveway on the south side of E Casino Road, opposite Cascade High School. These driveways would not be open to general-purpose traffic.

#### *Alternative EGN-2B with North Side of SR 526 Design Option*

Instead of emergency access points south of SR 526, the North Side of SR 526 Design Option would provide a driveway for emergency access to the guideway on the south side of Upper Ridge Road north of SR 526, approximately 200 feet west of the Upper Ridge Road/82nd Place SW intersection. The design option would also include a driveway to access a drainage pond on the north side of Upper Ridge Road and a maintenance driveway on the south side of E Casino Road, opposite Cascade High School. These driveways would not be open to general-purpose traffic.

#### *Alternative EGN-3E*

Station EGN-E would be located in the block bounded on the north by W Casino Road, on the east by Holly Drive, and on the west by Evergreen Way. Pick-up and drop-off for personal vehicles would be possible on both sides of W Casino Road and the north side of Holly Drive. A station loop road would be provided on the south side of station platform area for paratransit access. This station loop road would provide a direct north-south connection between Casino Road east of Evergreen Way and Holly Drive for transit, paratransit, and personal vehicles picking up or dropping off people at the station. The north intersection at Casino Road would be stop controlled and restricted to NB right turns only. The south intersection at Holly Drive would also be stop controlled with EB left turns from Holly Drive restricted.

This Build Alternative would also require reconfiguration of the segment of Casino Road between Evergreen Way and the station loop road access driveway. A raised median and traffic islands would be constructed along this segment of Casino Road, and passenger pickup and

drop-off spaces would be provided in curb cut-outs on both north and south sides of Casino Road. On-street bus bays would also be provided on both sides of Casino Road along this segment. Additional passenger pickup and drop-off spaces would be provided on the north side of Holly Drive both east and west of the station loop road access driveway.

Within the station area, a maintenance driveway would be constructed on the west side of Evergreen Way south of W Casino Road to provide access to a drainage pond. Two driveways would also be constructed on the east side of Evergreen Way south of W Casino Road to provide access to a traction power substation and trash enclosures. These driveways would be closed to general-purpose traffic.

Outside the station area, maintenance driveways to access the guideway or drainage ponds would be constructed approximately 1,000 feet west of the Casino Road/Evergreen Way intersection on the north side of Casino Road, on the west side of 7th Avenue SE south of Holly Drive, and on the north side of 84th Street SE near 8th Place SE. These driveways would not be open to general-purpose traffic.

Alternative EGN-3E would require realignment of W Casino Road between the east end of this segment and 18th Avenue W to accommodate the guideway, as well as two driveways on the north side of W Casino Road to provide access to two drainage ponds and a driveway on the west side of the north end of Upper Ridge Road south of SR 526 to provide emergency access to the guideway. There is also one maintenance driveway on the west side of 5th Avenue W south of SR 526. These driveways would be closed to general-purpose traffic.

#### *Alternative EGN-3E with North Side of SR 526 Design Option*

Instead of emergency access points south of SR 526, the North Side of SR 526 Design Option would provide a driveway for emergency access to the guideway on the south side of Upper Ridge Road north of SR 526, approximately 200 feet west of the Upper Ridge Road/82nd Place SW intersection and a driveway to access a drainage pond on the north side Upper Ridge Road. These driveways would not be open to general-purpose traffic.

### **Broadway/I-5 Segment**

#### *Impacts Common to All Broadway/I-5 Segment Alternatives*

The two Build Alternatives would provide a maintenance access driveway on the east side of Broadway approximately 300 feet south of the Broadway/Gale Place intersection. This driveway would be closed to general-purpose traffic. Other changes specific to each Build Alternative are outlined in the subsections below.

#### *Alternative BI-1*

Alternative BI-1 would primarily lead to local property access changes on street ends interfacing with the west side of SB I-5. Maintenance driveways would be constructed on the south side of Puget Drive on the west side of the Puget Drive/Beverly Boulevard intersection, on the east side of Broadway at its intersection with Spokane Drive, on the east side of the Broadway/Mountain View Lane intersection, and on the east side of the Broadway/20th Avenue SE intersection. Two more driveways would be constructed off of Broadway north of 60th Street SE. These driveways would provide access to drainage ponds and signal bungalows and would not be open to general-purpose traffic.

Traffic circulation would change with the reconstruction of the 75th Street SE crossing over I-5 to accommodate for also crossing over the at-grade guideway on the west side of I-5. This reconstruction would also remove the intersection of 75th Street SE and McDougall Avenue and terminate at McDougall Avenue just north of 75th Street SE as a cul-de-sac, with a maintenance driveway to access the guideway north of this cul-de-sac constructed as well.

Moving north, four eastern street ends would be converted into cul-de-sacs: Jackson Avenue, Monroe Avenue, Madison Street, and Howard Avenue. A cul-de-sac and driveway on the east end of Melvin Avenue would connect with an existing access driveway extending north from Howard Avenue. These driveways would also provide emergency access to the guideway and would not be open to general-purpose traffic. Continuing north, three more eastern street ends would be converted into cul-de-sacs: Lexington Avenue, Euclid Avenue, and 62nd Street SE. A driveway improvement would be provided for property access to 5807 and 5811 Broadway.

#### *Alternative BI-2*

Alternative BI-2 would primarily lead to changes in traffic circulation to local streets on the west side of Broadway due to the guideway location. At the south end of this segment, three streets would have their intersections with Broadway removed and these termini converted into cul-de-sacs: Mountain View Lane, 20th Avenue SE, and 78th Place SE. A connector roadway would be constructed between Leland Drive/Spokane Drive and 19th Drive SE to maintain access to 19th Drive SE and 20th Avenue SE. A connector roadway would be constructed between Grant Drive and 78th Place SE to maintain access to 78th Place SE. A driveway for property access would be reconstructed at the east side of the intersection of Broadway and 20th Avenue SE.

The properties at 7510 Broadway would have their direct access to Broadway terminated, and instead, a connector roadway would be constructed running north from the local property access road to 75th Street SE. 73rd Street SE would also have its EB approach to Broadway terminated as a cul-de-sac, and two maintenance driveways would be constructed from the north and south sides of this cul-de-sac. These driveways would be closed to the general public.

A driveway providing guideway access would be constructed on the north side of Lexington Avenue between Lombard Avenue and Broadway. Two maintenance driveways would also be constructed on this same segment of Lexington Avenue on its north and south sides. One maintenance driveway would also be constructed on the south side of Gale Place west of Broadway. These driveways would be closed to general-purpose traffic.

### **Everett Station Segment**

#### *Impacts Common to All Everett Station Segment Alternatives*

All Build Alternatives in the Everett Station Segment would have three maintenance driveways constructed to provide access to the guideway: one driveway on the west side of View Drive opposite Lowell Elementary School, one driveway on the east side of the View Drive/47th Street SE intersection, and one driveway on the east side of View Drive at the north end of View Drive. A maintenance driveway would also be constructed on the NB I-5 off-ramp to Broadway at approximately 200 feet south of the Broadway/41st Street intersection. Finally, all Build Alternatives would include a maintenance driveway on the south side of 38th Street between Broadway and McDougall Avenue, and on the west side of McDougall Avenue between 38th Street and 39th Street. These driveways would be closed to the general public. Other changes specific to each Build Alternative are outlined in the subsections below.



### *Alternative EVT-1A*

Station EVT-A would be located in the block bounded on the north by 32nd Street, on the east by Smith Avenue, on the south by 33rd Street, and on the west by McDougall Avenue. There would be a new transit-only station access road running east-west through the center of this block providing access to on-street bus bays. The station access road intersections with McDougall Avenue and Smith Avenue would be controlled using minor-leg stop-control for the transit-only approaches. Passenger pickup and drop-off zones would be provided on the north curb faces of 33rd Street. A driveway on the west side of Smith Avenue south of 33rd Street would provide access to a signal bungalow and would be closed to general-purpose traffic.

### *Alternative EVT-2C*

Station EVT-C would be located in the blocks bounded on the north by Pacific Avenue, on the east by McDougall Avenue, on the south by 33rd Street, and on the west by Broadway. The existing north-south alleyway between Broadway and McDougall Avenue would have curb-face improvements, and the alleyway would be reconfigured into a two-way station access road. This station access road would provide passenger pickup/drop-off zones and paratransit access. On-street active bus bays would be provided along both east and west curb faces of McDougall Avenue between Pacific Avenue and 33rd Street. A driveway on the east side of the north-south alleyway between Broadway and McDougall Avenue south of 33rd Street would be constructed to provide access to a signal bungalow and would be closed to general-purpose traffic.

### *Alternative EVT-3D*

Station EVT-D would be located in the blocks bounded on the north by Hewitt Avenue, on the east by McDougall Avenue, on the south by Pacific Avenue, and on the west by Broadway. The alleyway between Broadway and McDougall Avenue north of Pacific Avenue would be replaced with a transit only road between McDougall Avenue and Wall Street. A pick-up/drop-off loop would be constructed north of Wall Street with a right-in and right-out only connection to Broadway.

## **OMF North Site Alternatives**

### *OMF Site F (SR 99)*

OMF Site F would have two vehicle access points: one driveway would be directly accessed via the west side of SR 99 approximately 500 feet south of the intersection with Airport Road; another driveway would be accessed via a realigned Gibson Road between SR 99 and Alexander Road. These driveways would be closed to general-purpose traffic and would not be anticipated to impact local traffic circulation or property access. OMF Site F would require vacating the existing Gibson Road alignment between SR 99 and Alexander Road and realigning Gibson Road along the southwest edge of the OMF site. The east end of the realigned Gibson Road would have an intersection with SR 99 approximately 600 feet south of the existing SR 99/Gibson Road intersection. The west end of the realigned Gibson Road would have an intersection with Alexander Road approximately 1,000 feet south of the existing Alexander Road/Gibson Road intersection. A planned driveway on the realigned Gibson Road would provide vehicular access to OMF Site F. The realigned Gibson Road would include a two-way left-turn lane.

Center Road west of Airport Road would be shortened and a cul-de-sac street end constructed to remove access to Alexander Road. Access to Alexander Road from Airport Road would be maintained by extending Alexander Road north to a new signalized three-way intersection with

Airport Road, approximately 600 feet north of the existing Airport Road/Center Road intersection. On the approach to the intersection, Alexander Road would have one left-turn only lane and one right-turn only lane. Alexander Road would have one travel lane in the SB direction from this intersection. NB Airport Road would have its two-way left-turn lane median converted into one left-turn-only lane towards Alexander Road. This left-turn lane would be approximately 150 feet long and would be paired with a concrete raised median approximately 250 feet long. North of this intersection, approximately 150 feet of the existing two-way left-turn lane median would be converted into a concrete raised median, with a clear zone extending farther north by at least 250 feet. No other changes to the existing lane configuration on Airport Road (including bicycle lanes and HOV lanes) are anticipated.

#### *OMF Site F with Lead Tracks to West Side of Airport Road Design Option*

OMF Site F with Lead Tracks to West Side of Airport Road Design Option would have the same impacts to traffic circulation and local property access as OMF Site F.

#### *OMF Site E (Airport Road)*

OMF Site E would feature roadway vehicle access at two points: one driveway would be accessed from the north side of Holly Drive approximately 400 feet east of the intersection with Airport Road; another driveway would be accessed via a driveway on the south side of 100th Street SW that would connect at the existing intersection with 24th Place W. These driveways would be closed to general-purpose traffic and would not be anticipated to impact local traffic circulation or property access. This site alternative would require vacating sections of 103rd Street SW and 106th Street SW along Airport Road. Vehicles currently using these roadways for through-access would be required to use alternate routes for access to/from Airport Road, such as 100th Street SW to the north or Holly Drive to the south.

#### *OMF Site B (SR 526)*

OMF Site B would feature roadway vehicle access at two points: one driveway would be accessed from the south side of 75th Street SW approximately 1,000 feet west of the intersection with Hardeson Road; another driveway would be accessed via the west end of 80th Street SW approximately 1,500 feet west of the intersection with Hardeson Road. This site alternative would require vacating a section of 80th Street SW between 16th Avenue W and Hardeson Road. There would be traffic circulation impacts due to this closure, as traffic previously accessing the western portion of 80th Street SW directly via Hardeson Road would now be required to route via 75th Street SW and 16th Avenue W. The access driveways to OMF Site B would be closed to general-purpose traffic and would not be anticipated to impact traffic circulation and local property access.

#### *OMF B with Lead Tracks to South Side of SR 526 Design Option*

OMF Site B with Lead Tracks to South Side of SR 526 Design Option would have the same impacts to traffic circulation and local property access as OMF Site B.

### **4.3.2.2 Traffic Operations**

Most of the intersections analyzed would operate similarly under the No Build and Build Alternatives. Most of the intersections not meeting the jurisdictional LOS standards in the No Build Alternative would continue to not meet standards under the Build Alternatives. The following sections discuss changes to traffic operations by segment, and Table 4-21 to Table 4-38 present the intersection analysis for the No Build Alternative and all Build Alternatives for

the AM and PM peak hours. These tables identify intersections that do not meet jurisdictional LOS standards, as well as intersections that do not meet jurisdictional LOS standards and where the peak hour increase in vehicular delay is greater 15 seconds, which indicates the need to evaluate potential mitigation measures.

### ***West Alderwood Segment***

During the AM and PM peak hours, most of the public-road study intersections would operate within City of Lynnwood standards under all of the Build Alternatives. The intersection of mall access road at 188th Street SW (ID 106) is on mall property and is not a public intersection. This intersection is shown to operate at LOS E or F during the PM peak hour for the No Build and all Build Alternatives, but the delay at the intersection would not increase by 15 seconds. The intersection of 184th Street SW at 33rd Avenue W (ID 108) currently operates at LOS E during the PM peak hour. The intersection is shown to operate at between LOS D and LOS E under the various Build Alternatives' conditions, with increases in delay of less than 15 seconds.

Intersection LOS in the West Alderwood Segment is summarized in Table 4-21 for the AM peak hour and Table 4-22 for the PM peak hour. Intersection LOS is shown in Figure 4-20 for the AM peak hour and Figure 4-21 for the PM peak. The results are shown in Attachment B.

**Table 4-21 2046 AM Peak Hour Intersection Level of Service – West Alderwood Segment**

| ID  | Intersection                                           | Intersection Control | No Build |                 | Station ALD-B |                 | Station ALD-D |                 | Station ALD-F |                 |
|-----|--------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                        |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 100 | Mall access road at 29th Avenue W                      | TWSC                 | A        | 9.3             | A             | 9.7             | A             | 9.3             | A             | 9.2             |
| 101 | Mall access road at ALD-B Station Access               | TWSC                 | A        | 9.3             | -             | -               | A             | 9.4             | A             | 9.2             |
| 102 | Mall access road at 28th Avenue W                      | AWSC                 | A        | 7.6             | A             | 8.1             | A             | 7.7             | A             | 7.4             |
| 103 | Alderwood Mall Boulevard at 28th Avenue W              | TWSC                 | B        | 14.2            | C             | 16.2            | C             | 15.8            | B             | 14.0            |
| 104 | 188th Street SW at 33rd Avenue                         | Signalized           | C        | 20.6            | C             | 20.5            | C             | 20.7            | C             | 20.6            |
| 105 | 33rd Avenue W at ALD-D Station Transit Access          | TWSC                 | C        | 15.4            | C             | 15.9            | C             | 16.7            | C             | 16.2            |
| 106 | Mall access road at 188th Street SW <sup>a</sup>       | TWSC                 | A        | 6.2             | A             | 6.0             | A             | 7.7             | A             | 6.0             |
| 107 | 184th Street SW at mall access road <sup>a</sup>       | Signalized           | B        | 14.9            | B             | 14.8            | B             | 14.9            | B             | 15.8            |
| 108 | 184th Street SW at 33rd Avenue W                       | Signalized           | B        | 14.0            | B             | 14.1            | B             | 14.4            | B             | 14.3            |
| 109 | 188th Street SW at 36th Avenue W                       | Signalized           | B        | 18.0            | B             | 18.3            | B             | 18.4            | B             | 18.5            |
| 110 | Alderwood Mall Boulevard at 33rd Avenue W <sup>a</sup> | Signalized           | C        | 29.6            | C             | 28.3            | C             | 29.8            | C             | 25.4            |
| 111 | 196th Street SE at Poplar Way Bridge                   | Signalized           | B        | 14.7            | B             | 14.6            | B             | 14.6            | B             | 14.6            |
| 112 | 184th Street SW at 33rd Avenue W/Driveway <sup>a</sup> | Signalized           | B        | 10.7            | B             | 10.9            | B             | 11.0            | B             | 10.9            |

NOTE:

- a) Reported using HCM 2000 methodology due to non-standard phasing.

**Table 4-22 2046 PM Peak Hour Intersection Level of Service – West Alderwood Segment**

| ID  | Intersection                                           | Intersection Control | No Build |                 | Station ALD-B |                 | Station ALD-D |                 | Station ALD-F |                 |
|-----|--------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                        |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 100 | Mall access road at 29th Avenue W                      | TWSC                 | B        | 12.5            | B             | 13.5            | B             | 12.4            | B             | 12.3            |
| 101 | Mall access road at ALD-B Station Access               | TWSC                 | B        | 11.8            | -             | -               | B             | 11.1            | B             | 11.0            |
| 102 | Mall access road at 28th Avenue W                      | AWSC                 | B        | 10.4            | B             | 10.6            | A             | 9.7             | A             | 9.6             |
| 103 | Alderwood Mall Boulevard at 28th Avenue W              | TWSC                 | C        | 24.3            | D             | 28.0            | D             | 25.3            | C             | 22.5            |
| 104 | 188th Street SW at 33rd Avenue                         | Signalized           | C        | 30.1            | C             | 29.3            | C             | 30.0            | C             | 29.5            |
| 105 | 33rd Avenue W at ALD-D Station Transit Access          | TWSC                 | D        | 28.2            | D             | 29.1            | D             | 32.5            | D             | 30.1            |
| 106 | Mall access road at 188th Street SW <sup>a</sup>       | TWSC                 | A        | 16.9            | A             | 20.5            | A             | 22.2            | A             | 15.3            |
| 107 | 184th Street SW at mall access road <sup>a</sup>       | Signalized           | C        | 24.0            | C             | 27.5            | C             | 27.0            | C             | 24.7            |
| 108 | 184th Street SW at 33rd Avenue W <sup>b</sup>          | Signalized           | E        | 57.8            | E             | 55.8            | D             | 51.2            | E             | 62.4            |
| 109 | 188th Street SW at 36th Avenue W                       | Signalized           | C        | 29.0            | C             | 29.0            | C             | 29.1            | C             | 29.1            |
| 110 | Alderwood Mall Boulevard at 33rd Avenue W <sup>a</sup> | Signalized           | C        | 27.7            | C             | 27.9            | C             | 26.1            | C             | 27.9            |
| 111 | 196th Street SE at Poplar Way Bridge                   | Signalized           | B        | 15.9            | B             | 15.8            | B             | 15.8            | B             | 15.8            |
| 112 | 184th Street SW at 33rd Avenue W/Driveway <sup>a</sup> | Signalized           | C        | 30.0            | C             | 30.0            | C             | 30.2            | C             | 30.2            |

**NOTES:**

- Reported using HCM 2000 methodology due to non-standard phasing.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.



**Figure 4-20 West Alderwood 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-21 West Alderwood 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



### **Ash Way Segment**

For this segment, the intersections along 164th Street SW between Ash Way and 13th Avenue W/Meadow Road (ID 201, 202, 203, 204, 205, and 212) were analyzed using the SimTraffic due to the traffic congestion along the corridor, closely spaced intersections, and queue interactions between the intersections. The SimTraffic model shows that the intersection operations along the corridor are all tied together such that operations at the 13th Avenue W/Meadow Road intersection can affect operations at the Ash Way intersection. The SimTraffic software provides a delay for each intersection but does not use the HCM methodology since the results are based on the simulation instead of HCM equations. The delay per vehicle from the SimTraffic simulation has been reported, and the HCM letter grade based on that delay has been reported for the six intersections along 164th Street SW.

Under the Build Alternatives, the study intersections are anticipated to operate at a LOS no worse than the No Build Alternative during the AM peak hour. The intersections along the 164th Street SW corridor generally operate at LOS E or F during the PM peak hour under the 2046 No Build and Build conditions, particularly with Alternative ASH-D.

Intersection LOS in the Ash Way Segment is summarized in Table 4-23 for the AM peak hour and Table 4-24 for the PM peak hour. Intersection LOS is shown in Figure 4-22 for the AM peak hour and Figure 4-23 for the PM peak hour. The results are shown in Attachment B for the Synchro analysis and Attachment C for the SimTraffic analysis.

**Table 4-23 2046 AM Peak Hour Intersection Level of Service – Ash Way Segment**

| ID  | Intersection                                                | Intersection Control | No Build |                 | Station ASH-A |                 | Station ASH-D |                 |
|-----|-------------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                             |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 201 | Ash Way at 164th Street SW <sup>a,b</sup>                   | Signalized           | F        | 83.5            | E             | 72.2            | E             | 66.2            |
| 202 | 164th Street SW at I-5 SB Ramps <sup>a,b</sup>              | Signalized           | E        | 74.7            | E             | 74.4            | E             | 75.7            |
| 203 | 164th Street SW at I-5 NB Ramps <sup>a</sup>                | Signalized           | B        | 18.8            | B             | 15.0            | B             | 15.5            |
| 204 | 164th Street SW at 14th Place W <sup>a</sup>                | Signalized           | C        | 22.3            | B             | 19.7            | C             | 29.5            |
| 205 | 164th Street SW at 13th Avenue W/Meadow Road <sup>a,b</sup> | Signalized           | F        | 145.8           | D             | 39.1            | E             | 56.1            |
| 206 | Ash Way at ASH-A Park-and-Ride Access                       | Signalized           | A        | 9.6             | A             | 8.3             | A             | 4.8             |
| 207 | Ash Way at ASH-A Transit Access <sup>c</sup>                | TWSC <sup>d</sup>    | A        | 7.2             | A             | 6.8             | A             | 7.2             |
| 208 | Meadow Road at ASH-D Transit Access                         | TWSC                 | B        | 11.0            | B             | 11.1            | B             | 10.9            |
| 209 | Motor Place at Bridge over I-5                              | TWSC                 | A        | 8.8             | B             | 10.1            | A             | 9.4             |
| 210 | Meadow Road at 161st Street                                 | TWSC                 | -        | -               | B             | 10.5            | B             | 11.0            |
| 211 | Ash Way at 18th Avenue W <sup>e</sup>                       | Roundabout           | A        | 6.6             | A             | 6.8             | A             | 6.8             |
| 212 | 164th Street SW at Motor Place <sup>a</sup>                 | TWSC                 | C        | 23.0            | A             | 5.3             | A             | 5.2             |

## NOTES:

- a) Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- b) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- c) Reported using HCM 2000 methodology due to non-standard phasing.
- d) Would change to signalized in Build conditions.
- e) Evaluated with SIDRA.

**Table 4-24 2046 PM Peak Hour Intersection Level of Service – Ash Way Segment**

| ID  | Intersection                                                | Intersection Control | No Build |                 | Station ASH-A |                 | Station ASH-D |                 |
|-----|-------------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                             |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 201 | Ash Way at 164th Street SW <sup>a,b</sup>                   | Signalized           | F        | 115.1           | F             | 111.3           | F             | 95.2            |
| 202 | 164th Street SW at I-5 SB Ramps <sup>a,b</sup>              | Signalized           | E        | 57.4            | D             | 51.6            | E             | 60.3            |
| 203 | 164th Street SW at I-5 NB Ramps <sup>a,b</sup>              | Signalized           | F        | 95.7            | E             | 76.6            | F             | 80.7            |
| 204 | 164th Street SW at 14th Place W <sup>a,b,c</sup>            | Signalized           | D        | 40.3            | D             | 54.6            | <b>E</b>      | <b>57.7</b>     |
| 205 | 164th Street SW at 13th Avenue W/Meadow Road <sup>a,b</sup> | Signalized           | F        | 179.7           | F             | 122.4           | F             | 107.8           |
| 206 | Ash Way at ASH-A Park-and-Ride Access                       | Signalized           | B        | 13.3            | B             | 19.3            | B             | 14.4            |
| 207 | Ash Way at ASH-A Transit Access <sup>d</sup>                | TWSC <sup>e</sup>    | A        | 8.2             | C             | 22.1            | A             | 8.8             |
| 208 | Meadow Road at ASH-D Transit Access                         | TWSC                 | B        | 14.6            | C             | 15.3            | B             | 14.8            |
| 209 | Motor Place at Bridge over I-5                              | TWSC                 | A        | 8.5             | A             | 10.0            | A             | 9.4             |
| 210 | Meadow Road at 161st Street                                 | TWSC                 | -        | -               | B             | 11.8            | B             | 14.8            |
| 211 | Ash Way at 18th Avenue W <sup>f</sup>                       | Roundabout           | A        | 6.1             | A             | 6.3             | A             | 6.3             |
| 212 | 164th Street SW at Motor Place <sup>a</sup>                 | TWSC                 | D        | 28.1            | B             | 13.0            | B             | 12.8            |

**NOTES:**

- Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- Build condition does not meet jurisdictional LOS threshold and has at least a 15 second increase in delay compared to the No Build condition in the conditions(s) **bolded**.
- Reported using HCM 2000 methodology due to non-standard phasing.
- Would change to signalized in Build conditions.
- Evaluated with SIDRA.



**Figure 4-22 Ash Way 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-23 Ash Way 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



### **Mariner Segment**

The Mariner Segment is the only segment that is projected to have a higher ridership under the 2037 Build conditions than the 2046 Build conditions. The Mariner Segment has therefore been analyzed for the 2037 and 2046 time periods. The intersections along 128th Street SW between 8th Avenue W and I-5 NB ramps (intersection ID 301 through 305) were analyzed using SimTraffic software due to the traffic congestion along the corridor, closely spaced intersections, and queue interactions between the intersections.

During the AM and PM peak hours, all study intersections would operate with similar LOS under the Build Alternatives and increases in LOS would be below the 15 second threshold to consider mitigation.

Intersection LOS in the Mariner Segment is summarized in Table 4-25 for the 2037 AM peak hour, Table 4-26 for the 2037 PM peak hour, Table 4-27 for the 2046 AM peak hour, and Table 4-28 for the 2046 PM peak-hour. Figure 4-24 shows the AM peak hour and Figure 4-25 shows the PM peak hour in the 2037 initial phase condition, and Figure 4-26 shows the AM peak hour and Figure 4-27 shows the PM peak hour in the 2046 Build condition. The results are shown in Attachment B for the Synchro analysis and Attachment C for the SimTraffic analysis.

**Table 4-25 2037 AM Peak Hour Intersection Level of Service – Mariner Segment**

| ID  | Intersection                                 | Intersection Control | No Build |                 | Station MAR-B |                 | Station MAR-D |                 |
|-----|----------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                              |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 301 | 128th Street SW at 8th Avenue W <sup>a</sup> | Signalized           | B        | 15.8            | B             | 17.5            | B             | 20.0            |
| 302 | 128th Street SW at 5th Place <sup>a</sup>    | Signalized           | A        | 8.5             | B             | 11.2            | A             | 8.4             |
| 303 | 128th Street SW at 4th Avenue W <sup>a</sup> | Signalized           | D        | 50.3            | D             | 40.9            | D             | 40.7            |
| 304 | 128th Street SW at I-5 SB Ramp <sup>a</sup>  | Signalized           | C        | 24.9            | C             | 22.2            | C             | 25.3            |
| 305 | 128th Street SW at I-5 NB Ramp <sup>a</sup>  | Signalized           | C        | 27.7            | C             | 29.6            | C             | 25.3            |
| 306 | 8th Avenue W at MAR-B Transit Access         | TWSC                 | A        | 9.5             | B             | 10.5            | A             | 9.7             |
| 307 | 5th Place W at MAR-B Transit Access          | AWSC                 | A        | 7.1             | A             | 7.4             | A             | 7.1             |
| 308 | 132nd Street SW at 4th Avenue W              | TWSC                 | B        | 12.2            | B             | 12.5            | C             | 16.1            |
| 309 | 130th Street SW at 4th Avenue W <sup>b</sup> | Signalized           | B        | 10.2            | B             | 10.8            | B             | 11.6            |
| 310 | 132nd Street SW at 8th Avenue W              | TWSC                 | A        | 9.6             | A             | 9.7             | A             | 9.8             |
| 312 | 130th Street SW at Meridian Avenue           | TWSC                 | B        | 12.6            | B             | 13.0            | B             | 13.3            |
| 313 | 8th Avenue W at 130th Street SW/Driveway     | TWSC                 | B        | 10.2            | B             | 11.7            | B             | 11.8            |

## NOTES:

- a) Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- b) Reported using HCM 2000 methodology due to non-standard phasing.

**Table 4-26 2037 PM Peak Hour Intersection Level of Service – Mariner Segment**

| ID  | Intersection                                   | Intersection Control | No Build |                 | Station MAR-B |                 | Station MAR-D |                 |
|-----|------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 301 | 128th Street SW at 8th Avenue W <sup>a</sup>   | Signalized           | C        | 20.2            | C             | 29.8            | C             | 20.7            |
| 302 | 128th Street SW at 5th Place <sup>a</sup>      | Signalized           | B        | 10.1            | B             | 14.5            | B             | 10.2            |
| 303 | 128th Street SW at 4th Avenue W <sup>a,b</sup> | Signalized           | E        | 57.9            | D             | 54.5            | D             | 54.7            |
| 304 | 128th Street SW at I-5 SB Ramp <sup>a</sup>    | Signalized           | C        | 29.7            | D             | 36.2            | C             | 29.1            |
| 305 | 128th Street SW at I-5 NB Ramp <sup>a</sup>    | Signalized           | D        | 45.3            | D             | 54.1            | D             | 46.0            |
| 306 | 8th Avenue W at MAR-B Transit Access           | TWSC                 | A        | 9.9             | B             | 11.7            | B             | 10.4            |
| 307 | 5th Place W at MAR-B Transit Access            | AWSC                 | A        | 7.6             | A             | 7.6             | A             | 7.6             |
| 308 | 132nd Street SW at 4th Avenue W                | TWSC                 | B        | 13.9            | B             | 14.4            | B             | 14.7            |
| 309 | 130th Street SW at 4th Avenue W <sup>c</sup>   | Signalized           | B        | 15.7            | B             | 14.6            | D             | 36.3            |
| 310 | 132nd Street SW at 8th Avenue W                | TWSC                 | B        | 10.4            | B             | 10.6            | B             | 10.6            |
| 312 | 130th Street SW at Meridian Avenue             | TWSC                 | C        | 15.8            | C             | 16.6            | C             | 17.2            |
| 313 | 8th Avenue W at 130th Street SW/Driveway       | TWSC                 | B        | 11.9            | B             | 13.5            | B             | 13.7            |

**NOTES:**

- a) Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- b) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- c) Reported using HCM 2000 methodology due to non-standard phasing.



**Table 4-27 2046 AM Peak Hour Intersection Level of Service – Mariner Segment**

| ID  | Intersection                                   | Intersection Control | No Build |                 | Station MAR-B |                 | Station MAR-D |                 |
|-----|------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 301 | 128th Street SW at 8th Avenue W <sup>a</sup>   | Signalized           | B        | 14.3            | B             | 18.9            | B             | 18.8            |
| 302 | 128th Street SW at 5th Place <sup>a</sup>      | Signalized           | A        | 9.9             | B             | 12.5            | B             | 11.4            |
| 303 | 128th Street SW at 4th Avenue W <sup>a,b</sup> | Signalized           | E        | 55.4            | D             | 40.5            | D             | 50.0            |
| 304 | 128th Street SW at I-5 SB Ramp <sup>a</sup>    | Signalized           | C        | 26.4            | C             | 24.5            | C             | 28.7            |
| 305 | 128th Street SW at I-5 NB Ramp <sup>a</sup>    | Signalized           | C        | 27.6            | C             | 29.4            | C             | 30.3            |
| 306 | 8th Avenue W at MAR-B Transit Access           | TWSC                 | A        | 9.5             | B             | 10.6            | A             | 9.8             |
| 307 | 5th Place W at MAR-B Transit Access            | AWSC                 | A        | 7.2             | A             | 7.4             | A             | 7.1             |
| 308 | 132nd Street SW at 4th Avenue W                | TWSC                 | B        | 12.5            | B             | 12.9            | C             | 16.8            |
| 309 | 130th Street SW at 4th Avenue W <sup>c</sup>   | Signalized           | B        | 12.4            | B             | 11.9            | B             | 15.3            |
| 310 | 132nd Street SW at 8th Avenue W                | TWSC                 | A        | 9.7             | A             | 9.8             | A             | 9.9             |
| 312 | 130th Street SW at Meridian Avenue             | TWSC                 | B        | 13.0            | B             | 13.5            | B             | 13.7            |
| 313 | 8th Avenue W at 130th Street SW/Driveway       | TWSC                 | B        | 10.3            | B             | 11.9            | B             | 12.1            |

## NOTES:

- a) Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- b) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- c) Reported using HCM 2000 methodology due to non-standard phasing.

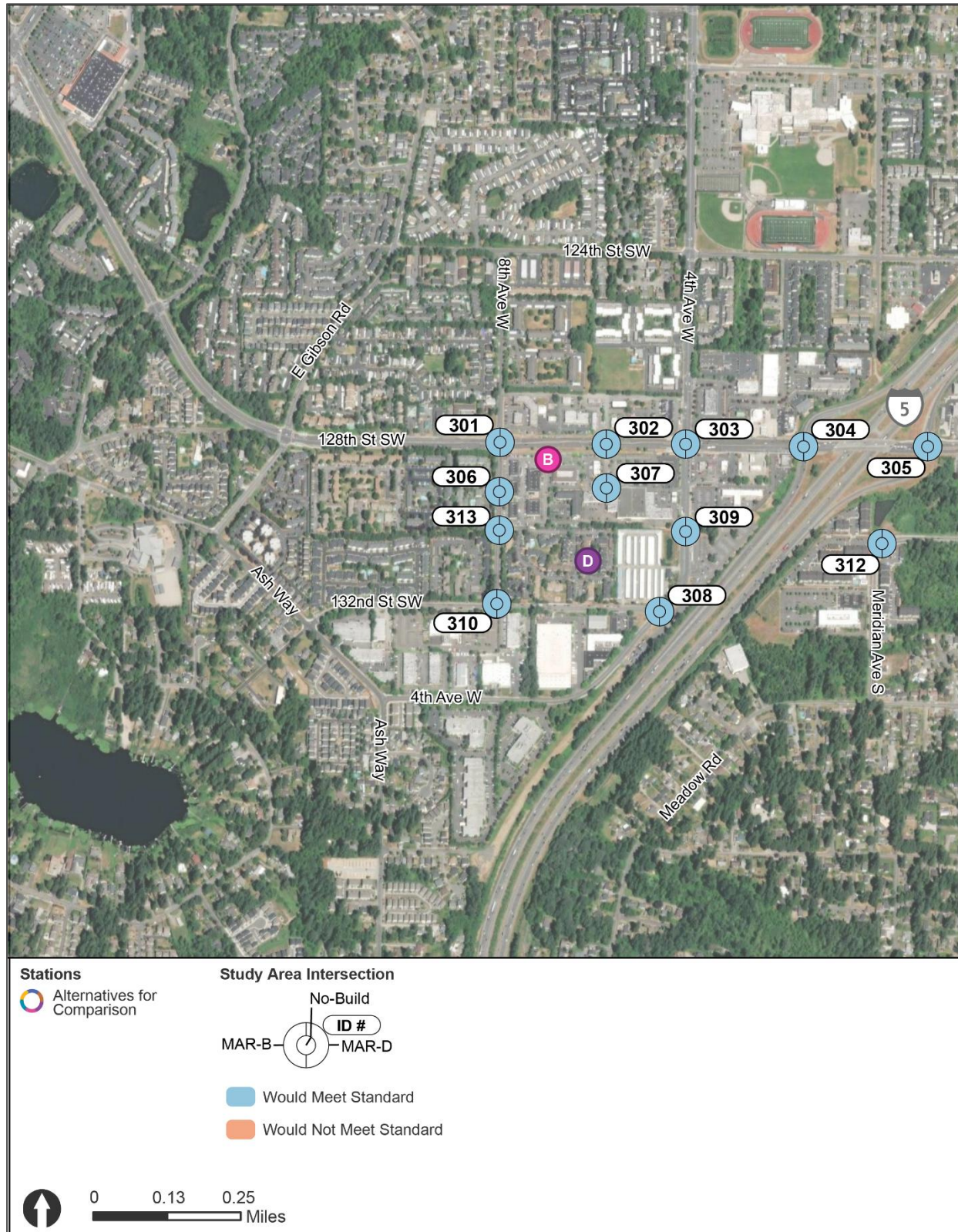
**Table 4-28 2046 PM Peak Hour Intersection Level of Service – Mariner Segment**

| ID  | Intersection                                                     | Intersection Control | No Build |                 | Station MAR-B |                 | Station MAR-D |                 |
|-----|------------------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                                                  |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 301 | 128th Street SW at 8th Avenue W <sup>a</sup>                     | Signalized           | C        | 22.4            | C             | 25.8            | C             | 26.7            |
| 302 | 128th Street SW at 5th Place <sup>a</sup>                        | Signalized           | B        | 18.8            | B             | 13.0            | B             | 14.3            |
| 303 | 128th Street SW at 4th Avenue W <sup>a,b</sup>                   | Signalized           | F        | 82.5            | E             | 72.2            | E             | 57.4            |
| 304 | 128th Street SW at I-5 SB Ramp <sup>a</sup>                      | Signalized           | D        | 43.3            | D             | 35.8            | D             | 42.6            |
| 305 | 128th Street SW at I-5 NB Ramp <sup>a,b</sup>                    | Signalized           | E        | 60.3            | E             | 56.7            | E             | 65.3            |
| 306 | 8th Avenue W at MAR-B Transit Access                             | TWSC                 | A        | 10.0            | B             | 11.9            | B             | 10.5            |
| 307 | 5th Place W at MAR-B Transit Access                              | AWSC                 | A        | 7.6             | A             | 7.6             | A             | 7.6             |
| 308 | 132nd Street SW at 4th Avenue W                                  | TWSC                 | B        | 14.5            | B             | 14.7            | C             | 15.2            |
| 309 | 130th Street SW at 4th Avenue W <sup>c</sup>                     | Signalized           | B        | 12.6            | B             | 12.2            | C             | 27.2            |
| 310 | 132 <sup>nd</sup> Street SW at 8 <sup>th</sup> Avenue W          | TWSC                 | B        | 10.5            | B             | 10.7            | B             | 10.8            |
| 312 | 130 <sup>th</sup> Street SW at Meridian Avenue                   | TWSC                 | C        | 16.6            | C             | 17.0            | C             | 17.6            |
| 313 | 8 <sup>th</sup> Avenue W at 130 <sup>th</sup> Street SW/Driveway | TWSC                 | B        | 12.2            | B             | 13.7            | B             | 13.9            |

**NOTES:**

- Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- Reported using HCM 2000 methodology due to non-standard phasing.

**Figure 4-24 Mariner 2037 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-25 Mariner 2037 No Build and Build Alternatives Traffic Operations – PM Peak Hour**





**Figure 4-26 Mariner 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-27 Mariner 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



### **SR 99/Airport Road Segment and OMF Site F**

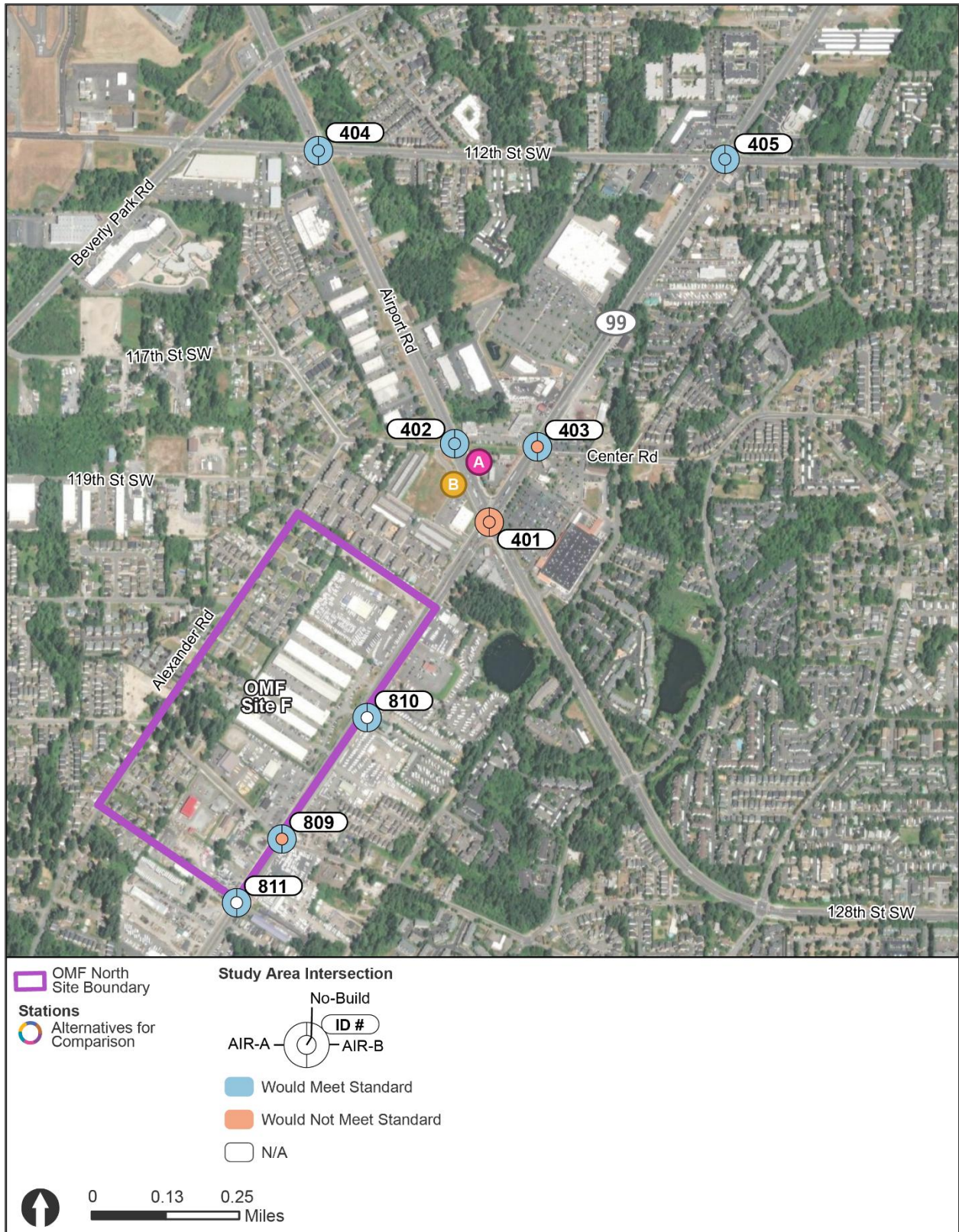
During the AM and PM peak hours, all study intersections would operate with similar or better LOS under the Build Alternatives. The intersection of Airport Road at SR 99 (ID 401) is anticipated to operate at LOS E/F during the AM and PM peak hours under the No Build and both Build Alternatives. The intersection of SR 99 at 112th Street SW (ID 405) is anticipated to operate at LOS F during the PM peak hour under the No Build and both Build Alternatives. The signal improvements included as part of the station improvements would allow the Center Road intersections to operate with better LOS than under the No Build conditions.

During the AM and PM peak hours, the intersection of SR 99/Evergreen Way at Gibson Road (ID 809) is anticipated to improve from the No Build to the Build Alternatives due to the realignment of the west leg of Gibson Road.

Intersection LOS in the SR 99/Airport Road Segment and around OMF Site F is summarized in Table 4-29 for the AM peak hour and Table 4-30 for the PM peak hour. Intersection LOS is shown in Figure 4-28 for the AM peak hour and Figure 4-29 for the PM peak hour. The results are shown in Attachment B.

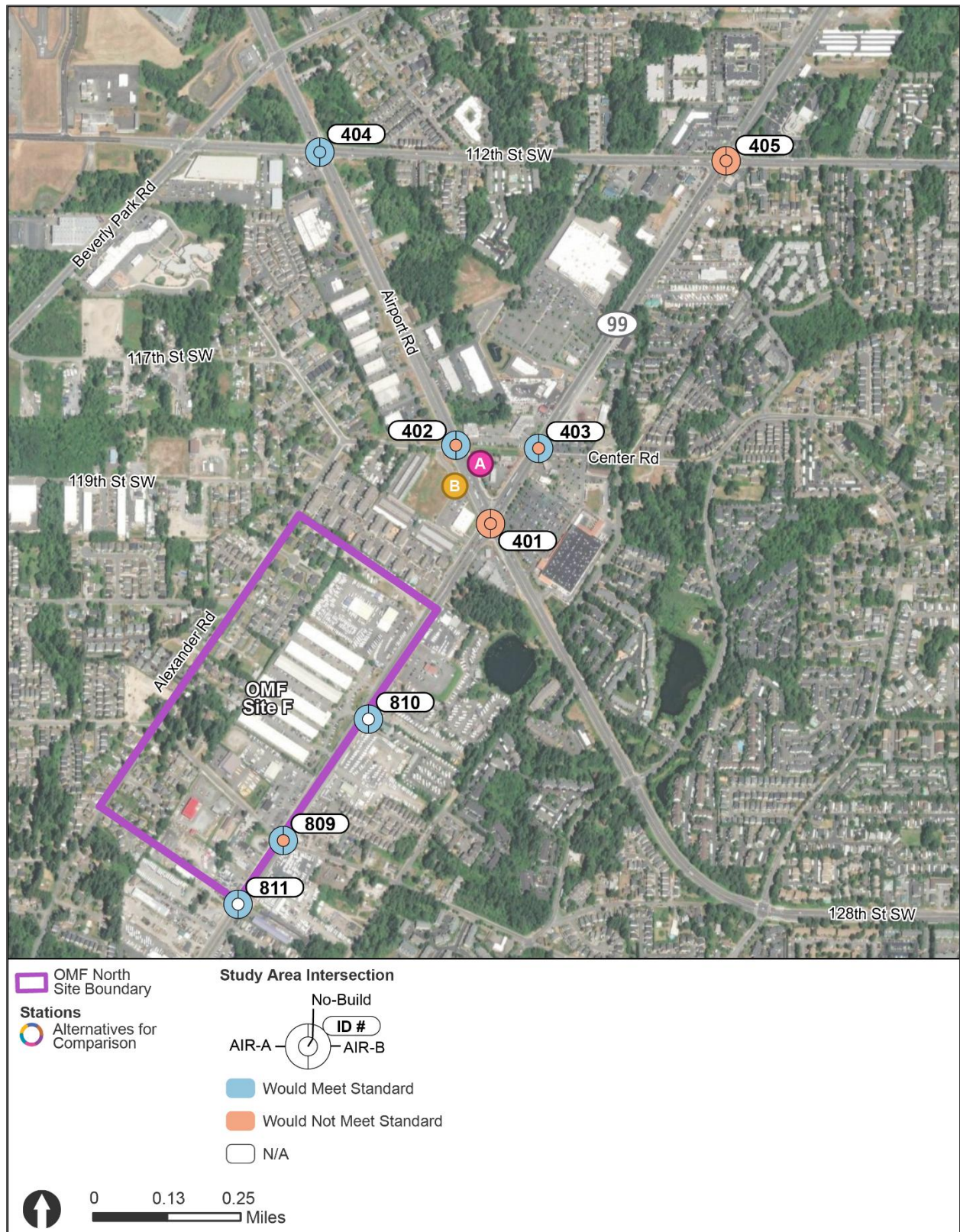


**Figure 4-28 SR 99/Airport Road and OMF Site F 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-29 SR 99/Airport Road and OMF Site F 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



**Table 4-29 2046 AM Peak Hour Intersection Level of Service – SR 99/Airport Road Segment and OMF Site F**

| ID  | Intersection                                      | Intersection Control | No Build |                   | Station AIR-A and OMF Site F |                 | Station AIR-B and OMF Site F |                 |
|-----|---------------------------------------------------|----------------------|----------|-------------------|------------------------------|-----------------|------------------------------|-----------------|
|     |                                                   |                      | LOS      | Delay (sec/veh)   | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) |
| 401 | Airport Road at SR 99 <sup>a</sup>                | Signal               | F        | 88.4              | F                            | 84.0            | E                            | 72.6            |
| 402 | Airport Road at Center Road                       | TWSC <sup>b</sup>    | D        | 26.1              | B                            | 14.5            | B                            | 12.5            |
| 403 | SR-99 at Center Road <sup>a</sup>                 | TWSC <sup>b</sup>    | F        | >300 <sup>c</sup> | B                            | 13.5            | A                            | 8.9             |
| 404 | Airport Road at 112 <sup>th</sup> Street          | Signal               | B        | 18.4              | B                            | 18.1            | B                            | 18.1            |
| 405 | SR 99 at 112 <sup>th</sup> Street <sup>d</sup>    | Signal               | D        | 35.9              | C                            | 34.1            | C                            | 34.1            |
| 809 | SR 99/Evergreen Way at Gibson Road <sup>a,d</sup> | Signal               | F        | 138.8             | C                            | 26.2            | C                            | 26.2            |
| 810 | SR 99/Evergreen Way at OMF Site F Driveway        | Signal               | -        | -                 | A                            | 2.7             | A                            | 2.7             |
| 811 | SR 99/Evergreen Way at Realigned Gibson Road      | Signal               | -        | -                 | B                            | 10.8            | B                            | 10.8            |

**NOTES:**

- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- Would change to signalized in Build conditions.
- Delay is limited to 300 seconds in reporting model results.
- Reported using HCM 2000 methodology due to non-standard phasing.



**Table 4-30 2046 PM Peak Hour Intersection Level of Service – SR 99/Airport Road Segment and OMF Site F**

| ID  | Intersection                                       | Intersection Control | No Build |                   | Station AIR-A and OMF Site F |                 | Station AIR-B and OMF Site F |                 |
|-----|----------------------------------------------------|----------------------|----------|-------------------|------------------------------|-----------------|------------------------------|-----------------|
|     |                                                    |                      | LOS      | Delay (sec/veh)   | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) |
| 401 | Airport Road at SR 99 <sup>a</sup>                 | Signal               | F        | 112.8             | F                            | 110.4           | F                            | 93.0            |
| 402 | Airport Road at Center Road <sup>a</sup>           | TWSC <sup>b</sup>    | F        | >300 <sup>c</sup> | C                            | 24.0            | C                            | 23.0            |
| 403 | SR 99 at Center Road <sup>a</sup>                  | TWSC <sup>b</sup>    | F        | >300 <sup>c</sup> | C                            | 25.1            | C                            | 26.7            |
| 404 | Airport Road at 112th Street                       | Signal               | D        | 45.6              | D                            | 43.8            | D                            | 43.8            |
| 405 | SR 99 at 112th Street <sup>a, d</sup>              | Signal               | F        | 113.3             | F                            | 106.3           | F                            | 106.3           |
| 809 | SR 99/Evergreen Way at Gibson Road <sup>a, d</sup> | Signal               | F        | 130.1             | C                            | 26.3            | C                            | 24.7            |
| 810 | SR 99/Evergreen Way at OMF Site F Driveway         | Signal               | -        | -                 | A                            | 3.3             | A                            | 3.3             |
| 811 | SR 99/Evergreen Way at Realigned Gibson Road       | Signal               | -        | -                 | C                            | 28.1            | C                            | 28.0            |

NOTES:

- a) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- b) Would change to signalized in Build conditions.
- c) Delay is limited to 300 seconds in reporting model results.
- d) Reported using HCM 2000 methodology due to non-standard phasing.

***SW Everett Industrial Center Segment and OMF Site E***

All study intersections in the SW Everett Industrial Center Segment and for OMF Site E would operate at acceptable standards for WSDOT, Snohomish County, or the City of Everett, as applicable. All intersections were evaluated with station and OMF Site E trips added to future forecast traffic volumes.

Intersection LOS in the SW Everett Industrial Center Segment and OMF Site E is summarized in Table 4-31 for the AM peak hour and Table 4-32 for the PM peak hour. Intersection LOS is shown in Figure 4-30 for the AM peak hour and Figure 4-31 for the PM peak hour. The results are shown in Attachment B.

**Table 4-31 2046 AM Peak Hour Intersection LOS – SW Everett Industrial Center Segment and OMF Site E**

| ID  | Intersection                                           | Intersection Control        | No Build |                 | Station SWI-A and OMF Site E |                 | Station SWI-B and OMF Site E |                 | Station SWI-C and OMF Site E |                 |
|-----|--------------------------------------------------------|-----------------------------|----------|-----------------|------------------------------|-----------------|------------------------------|-----------------|------------------------------|-----------------|
|     |                                                        |                             | LOS      | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) |
| 501 | Airport Road at Kasch Park Road                        | Signalized                  | C        | 26.5            | C                            | 26.6            | C                            | 27.5            | C                            | 26.1            |
| 502 | Airport Road at Casino Road <sup>a</sup>               | Signalized                  | C        | 26.8            | C                            | 34.6            | C                            | 32.4            | C                            | 29.5            |
| 505 | Casino Road at SWI-A Transit Access                    | Signal                      | -        | -               | B                            | 13.1            | -                            | -               | -                            | -               |
| 506 | Casino Road at SWI-B Station Access <sup>a</sup>       | TWSC <sup>b</sup>           | -        | -               | -                            | -               | A                            | 6.1             | -                            | -               |
| 507 | Kasch Park Road at SWI-B Station Access                | TWSC                        | -        | -               | -                            | -               | B                            | 10.9            | -                            | -               |
| 508 | Airport Road at 94th Street SW                         | Signalized                  | B        | 12.6            | B                            | 12.1            | B                            | 12.8            | B                            | 17.5            |
| 509 | 94th Street SW at SWI-C Station Transit Access         | TWSC                        | -        | -               | -                            | -               | -                            | -               | B                            | 14.1            |
| 510 | 29th Avenue W at 29th Avenue W (Connection)            | AWSC                        | A        | 7.3             | A                            | 7.2             | A                            | 7.2             | A                            | 7.3             |
| 511 | Airport Road at Boeing Freeway (WB Ramps) <sup>a</sup> | Signalized                  | C        | 29.3            | C                            | 29.9            | C                            | 29.4            | C                            | 29.9            |
| 512 | Airport Road at Boeing Freeway (EB Ramps) <sup>a</sup> | Signalized                  | C        | 26.1            | C                            | 26.3            | C                            | 26.4            | C                            | 26.3            |
| 513 | Casino Road at SWI-A Vehicle Access                    | One-way stop control (OWSC) | -        | -               | B                            | 11.8            | -                            | -               | -                            | -               |
| 514 | 94th Street SW at SWI-C Station Vehicle Access         | TWSC                        | -        | -               | -                            | -               | -                            | -               | B                            | 10.1            |
| 515 | Airport Road at SWI-C Station Access <sup>c</sup>      | TWSC                        | -        | -               | -                            | -               | -                            | -               | A                            | 0.0             |
| 805 | Airport Road at 100th Street SW                        | Signalized                  | B        | 18.7            | B                            | 19.9            | C                            | 20.5            | C                            | 20.4            |
| 806 | Airport Road at 106th Street SW <sup>a</sup>           | Signalized                  | B        | 15.7            | A                            | 8.2             | A                            | 8.2             | A                            | 6.7             |

| ID  | Intersection                                 | Intersection Control | No Build |                 | Station SWI-A and OMF Site E |                 | Station SWI-B and OMF Site E |                 | Station SWI-C and OMF Site E |                 |
|-----|----------------------------------------------|----------------------|----------|-----------------|------------------------------|-----------------|------------------------------|-----------------|------------------------------|-----------------|
|     |                                              |                      | LOS      | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) |
| 807 | Airport Road at Holly Road                   | Signalized           | C        | 32.4            | C                            | 31.5            | C                            | 31.3            | C                            | 31.2            |
| 808 | 100th Street SW at 24th Place W <sup>d</sup> | OWSC/TWSC            | B        | 10.0            | D                            | 32.8            | D                            | 32.8            | D                            | 32.8            |

NOTES:

- a) Reported using HCM 2000 methodology due to non-standard phasing.
- b) Would change to signalized in Build conditions.
- c) This access is inbound only, which is why there is no delay.
- d) OMF Site E driveway adds fourth leg to intersection in Build conditions.

**Table 4-32 2046 PM Peak Hour Intersection LOS – SW Everett Industrial Center Segment and OMF Site E**

| ID  | Intersection                                           | Intersection Control | No Build |                 | Station SWI-A and OMF Site E |                 | Station SWI-B and OMF Site E |                 | Station SWI-C and OMF Site E |                 |
|-----|--------------------------------------------------------|----------------------|----------|-----------------|------------------------------|-----------------|------------------------------|-----------------|------------------------------|-----------------|
|     |                                                        |                      | LOS      | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) | LOS                          | Delay (sec/veh) |
| 501 | Airport Road at Kasch Park Road                        | Signalized           | B        | 13.5            | B                            | 12.9            | B                            | 13.1            | B                            | 11.7            |
| 502 | Airport Road at Casino Road <sup>a</sup>               | Signalized           | D        | 36.9            | D                            | 45.9            | C                            | 34.5            | C                            | 33.0            |
| 505 | Casino Road at SWI-A Transit Access                    | Signal               | -        | -               | C                            | 24.3            | -                            | -               | -                            | -               |
| 506 | Casino Road at SWI-B Station Access <sup>a</sup>       | TWSC <sup>b</sup>    | -        | -               | -                            | -               | A                            | 6.0             | -                            | -               |
| 507 | Kasch Park Road at SWI-B Station Access                | TWSC                 | -        | -               | -                            | -               | B                            | 10.8            | -                            | -               |
| 508 | Airport Road at 94th Street SW                         | Signalized           | B        | 17.8            | B                            | 13.8            | B                            | 13.3            | B                            | 19.8            |
| 509 | 94th Street SW at SWI-C Station Transit Access         | TWSC                 | -        | -               | -                            | -               | -                            | -               | B                            | 11.4            |
| 510 | 29th Avenue W at 29th Avenue W (Connection)            | AWSC                 | A        | 7.4             | A                            | 7.4             | A                            | 7.4             | A                            | 7.5             |
| 511 | Airport Road at Boeing Freeway (WB Ramps) <sup>a</sup> | Signalized           | C        | 23.3            | C                            | 23.1            | C                            | 22.8            | C                            | 23.1            |
| 512 | Airport Road at Boeing Freeway (EB Ramps) <sup>a</sup> | Signalized           | C        | 30.3            | C                            | 29.3            | C                            | 29.3            | C                            | 29.3            |
| 513 | Casino Road at SWI-A Vehicle Access                    | OWSC                 | -        | -               | B                            | 11.1            | -                            | -               | -                            | -               |
| 514 | 94th Street SW at SWI-C Station Vehicle Access         | TWSC                 | -        | -               | -                            | -               | -                            | -               | A                            | 9.3             |
| 515 | Airport Road at SWI-C Station Access <sup>c</sup>      | TWSC                 | -        | -               | -                            | -               | -                            | -               | A                            | 0.0             |
| 805 | Airport Road at 100th Street SW                        | Signalized           | D        | 38.8            | D                            | 41.8            | D                            | 41.8            | D                            | 42.1            |
| 806 | Airport Road at 106th Street SW <sup>a</sup>           | Signalized           | B        | 16.0            | B                            | 15.5            | B                            | 15.5            | B                            | 15.5            |
| 807 | Airport Road at Holly Road                             | Signalized           | C        | 33.2            | D                            | 52.1            | D                            | 52.3            | D                            | 52.5            |
| 808 | 100th Street SW at 24th Place W <sup>d</sup>           | OWSC/TWSC            | C        | 16.5            | C                            | 18.9            | C                            | 18.9            | C                            | 18.9            |

**NOTES:**

- Reported using HCM 2000 methodology due to non-standard phasing.
- Would change to signalized in Build conditions.
- This access is inbound only, which is why there is no delay.
- OMF Site E driveway adds fourth leg to intersection in Build conditions.



**Figure 4-30 SW Everett Industrial Center and OMF Site E 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-31 SW Everett Industrial Center and OMF Site E 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



### **SR 526/Evergreen Segment**

All study intersections in the SR 526/Evergreen Segment would operate at an acceptable City of Everett or WSDOT standard in the AM peak hour, as applicable. The intersection at W Casino Road at 5th Avenue W (ID 608) is expected to operate at an LOS E in the PM peak hour, which would not meet agency standards. This intersection is expected to operate at higher average vehicle delay in the 2046 No Build conditions than in any of the 2046 Build Alternatives. This is because of the slightly higher background growth rate in vehicle trips calculated from the PSRC No Build travel demand model compared to the Build travel demand model (1.1% vs. 0.9%, respectively). The reduction in vehicle delay from No Build to Build (-4.9 seconds) is consistent across all Build scenarios and is therefore not a result of specific travel patterns from any of the stations. Intersection LOS in the SR 526/Evergreen Segment is summarized in Table 4-33 for the AM peak hour and Table 4-34 for the PM peak hour. Intersection LOS is shown in Figure 4-32 for the AM peak hour and Figure 4-33 for the PM peak hour. The results are shown in Attachment B.

**Table 4-33 2046 AM Peak Hour Intersection LOS – SR 526/Evergreen Segment**

| ID  | Intersection                                  | Intersection Control | No Build |                 | Station EGN-A |                 | Station EGN-B |                 | Station EGN-E |                 |
|-----|-----------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
|     |                                               |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 601 | Evergreen Way at Casino Road <sup>a</sup>     | Signalized           | D        | 45.5            | D             | 45.4            | D             | 46.6            | D             | 46.8            |
| 602 | Evergreen Way at SR 526 EB Ramps <sup>a</sup> | Signalized           | B        | 15.7            | B             | 16.3            | B             | 15.0            | B             | 15.5            |
| 603 | Evergreen Way at SR 526 WB Ramps <sup>a</sup> | Signalized           | C        | 31.2            | C             | 31.3            | C             | 32.0            | C             | 32.1            |
| 604 | Evergreen Way at 79th Place                   | Signalized           | C        | 28.9            | C             | 31.1            | C             | 28.8            | C             | 29.7            |
| 605 | W Casino Road at EGN-B Station <sup>a</sup>   | Signalized           | A        | 7.2             | A             | 7.0             | B             | 11.8            | A             | 7.6             |
| 606 | W Casino Road at EGN-E Station Access         | TWSC                 | B        | 14.4            | C             | 15.1            | B             | 14.9            | B             | 13.1            |
| 607 | Beverly Lane at 79th Place                    | TWSC <sup>b</sup>    | B        | 11.6            | B             | 12.2            | B             | 11.5            | B             | 11.5            |
| 608 | W Casino Road at 5th Avenue W <sup>a</sup>    | Signalized           | D        | 44.4            | D             | 42.8            | D             | 42.9            | D             | 42.8            |
| 609 | Evergreen Way at Holly Drive <sup>a</sup>     | Signalized           | A        | 7.3             | A             | 8.7             | A             | 8.7             | A             | 9.4             |
| 610 | 7th Avenue SE at E Casino Road <sup>a</sup>   | Signalized           | C        | 31.0            | C             | 30.9            | C             | 31.3            | D             | 39.0            |
| 611 | 7th Avenue SE at 84th Street SE <sup>a</sup>  | Signalized           | B        | 17.7            | B             | 17.6            | B             | 17.5            | C             | 22.3            |
| 612 | Evergreen Way at EGN-A Station Access         | OWSC                 | -        | -               | C             | 24.0            | -             | -               | -             | -               |
| 613 | Holly Drive at EGN-E Station Access           | OWSC                 | -        | -               | -             | -               | -             | -               | A             | 9.8             |

NOTES:

- a) Reported using HCM 2000 methodology due to non-standard phasing.
- b) Would change to OWSC in Build conditions.

Table 4-34 2046 PM Peak Hour Intersection LOS – SR 526/Evergreen Segment

| ID  | Intersection                                  | Intersection Control | No Build |                 | Station EGN-A |                 | Station EGN-B  |                 | Station EGN-E |                 |
|-----|-----------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|----------------|-----------------|---------------|-----------------|
|     |                                               |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS            | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 601 | Evergreen Way at Casino Road <sup>a</sup>     | Signalized           | D        | 44.9            | D             | 45.5            | D              | 53.8            | D             | 47.6            |
| 602 | Evergreen Way at SR 526 EB Ramps <sup>a</sup> | Signalized           | D        | 35.9            | C             | 30.6            | C              | 29.4            | C             | 34.4            |
| 603 | Evergreen Way at SR 526 WB Ramps <sup>a</sup> | Signalized           | C        | 34.0            | C             | 22.1            | D              | 38.3            | C             | 31.2            |
| 604 | Evergreen Way at 79th Place                   | Signalized           | C        | 20.3            | C             | 22.6            | B              | 19.5            | B             | 19.9            |
| 605 | W Casino Road at EGN-B Station                | Signalized           | B        | 13.7            | B             | 13.2            | B <sup>2</sup> | 15.2            | B             | 12.0            |
| 606 | W Casino Road at EGN-E Station Access         | TWSC                 | C        | 18.1            | C             | 19.1            | C              | 18.4            | B             | 14.5            |
| 607 | Beverly Lane at 79th Place                    | TWSC <sup>b</sup>    | B        | 12.1            | B             | 13.1            | B              | 12.0            | B             | 12.2            |
| 608 | W Casino Road at 5th Avenue W <sup>a,c</sup>  | Signalized           | E        | 73.7            | E             | 69.2            | E              | 69.2            | E             | 69.2            |
| 609 | Evergreen Way at Holly Drive <sup>a</sup>     | Signalized           | B        | 16.0            | C             | 25.7            | B              | 13.7            | C             | 26.7            |
| 610 | 7th Avenue SE at E Casino Road <sup>a</sup>   | Signalized           | D        | 39.0            | D             | 39.3            | D              | 39.4            | D             | 43.2            |
| 611 | 7th Avenue SE at 84th Street SE <sup>a</sup>  | Signalized           | C        | 20.6            | C             | 20.6            | C              | 20.5            | C             | 24.7            |
| 612 | Evergreen Way at EGN-A Station Access         | OWSC                 | -        | -               | D             | 26.7            | -              | -               | -             | -               |
| 613 | Holly Drive at EGN-E Station Access           | OWSC                 | -        | -               | -             | -               | -              | -               | B             | 10.2            |

## NOTES:

- a) Reported using HCM 2000 methodology due to non-standard phasing.
- b) Would change to OWSC in Build conditions.
- c) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.



**Figure 4-32 SR 526/Evergreen 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-33 SR 526/Evergreen 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



### ***Broadway/I-5***

Since there are no station alternatives in the Broadway/I-5 Segment, no intersections were studied for this analysis.

### ***Everett Station Segment***

The Everett Station Segment analysis identified multiple intersections that would not meet City of Everett operational standards in the No Build conditions and with the Build Alternatives. All Build Alternatives include station and garage trips added to future traffic forecasts. The following sections discuss these intersections in more detail.

Intersection LOS in the Everett Station Segment is summarized in Table 4-35 for the AM peak hour and Table 4-36 for the PM peak hour. Intersection LOS is shown in Figure 4-34 for the AM peak hour and Figure 4-35 for the PM peak hour. The results are shown in Attachment B.

#### ***No Build Alternative LOS Deficiencies***

There are four intersections in the AM peak hour and five intersections in the PM peak hour that do not meet the City of Everett LOS standard. These intersections are listed below:

- ID 704: Broadway at 32nd Street (AM and PM).
- ID 711: McDougall Avenue at Pacific Avenue (PM only).
- ID 716: Broadway at 34th Street (AM and PM).
- ID 717: Broadway at 35th Street (AM and PM).
- ID 718: Broadway at 36th Street (AM and PM).

All these intersections are unsignalized minor-leg stop-controlled intersections located on major arterials. The intersections located on Broadway all have critical minor approach total volumes between 10 and 70 vehicles with a range of 5 to 20 left-turning vehicles during a peak hour. The volume of left-turning vehicles is low enough that it would not likely meet the Manual on Uniform Traffic Control Devices (MUTCD) signal warrant thresholds, and therefore, no signal improvements were assumed under the No Build Alternative.

The McDougall Avenue and Pacific Avenue intersection has a critical SB approach volume in the PM peak hour of 45 vehicles with 25 SB left turns. The combination of high EB and WB through volumes as well as a high NB right-turn volume from vehicles diverting away from Broadway results in a high delay for a relatively low volume.

#### ***Build Alternative LOS Deficiencies***

There is one additional intersection that shows LOS deficiencies with the Build Alternatives:

- ID 719: Pacific Avenue at Fulton Street (all station alternatives PM only).

The Pacific Avenue at Fulton Street intersection is expected to operate at a LOS E or F in the PM peak hour for all Build Alternatives compared to LOS B in the No Build PM peak hour. Analysis showed that adding a dedicated NB left-turn lane and updating the signal timing and phasing would allow the intersection to operate at an acceptable LOS D. It is anticipated this additional NB left-turn lane could be added as a station improvement.

Additionally, the McDougall Avenue at Pacific Avenue intersection (ID 711) was also shown to have an LOS deficiency in the AM peak hour with Station EVT-A. Both Station EVT-C and Station EVT-D assume a signal would be constructed at this location as part of station area improvements, which would resolve the No Build LOS deficiency for those alternatives.

**Table 4-35 2046 AM Peak Hour Intersection Level of Service – Everett Station Segment**

| ID <sup>a</sup> | Intersection                                                      | Intersection Control | No Build |                 | Station EVT-A  |                     | Station EVT-C |                     | Station EVT-D  |                     |
|-----------------|-------------------------------------------------------------------|----------------------|----------|-----------------|----------------|---------------------|---------------|---------------------|----------------|---------------------|
|                 |                                                                   |                      | LOS      | Delay (sec/veh) | LOS            | Delay (sec/veh)     | LOS           | Delay (sec/veh)     | LOS            | Delay (sec/veh)     |
| 701             | Broadway at Hewitt Avenue                                         | Signalized           | C        | 20.9            | C              | 24.0                | D             | 37.5                | D              | 39.4                |
| 702             | Broadway at Wall Street <sup>b</sup>                              | Signalized           | A        | 6.3             | C              | 21.1                | B             | 10.6                | D              | 48.6                |
| 703             | Broadway at Pacific Avenue                                        | Signalized           | D        | 47.4            | D              | 54.6                | D             | 48.5                | D              | 49.9                |
| 704             | Broadway at 32nd Street <sup>c,d</sup>                            | TWSC <sup>e</sup>    | F        | 99.5            | F              | 103.4               | C             | 21.6                | F              | 175.8               |
| 705             | Wall Street at EVT-D Station Access                               | TWSC                 | A        | 9.4             | A              | 9.6                 | A             | 9.4                 | C              | 18.3                |
| 706             | Pacific Avenue at EVT-C/EVT-D Station Access                      | TWSC <sup>f</sup>    | B        | 11.2            | B              | 12.0                | C             | 15.5                | - <sup>g</sup> | - <sup>g</sup>      |
| 708             | Smith Avenue at Pacific Avenue <sup>b</sup>                       | Signalized           | B        | 10.2            | C              | 23.3                | B             | 15.2                | B              | 15.0                |
| 709             | Smith Avenue at 32nd Street <sup>b</sup>                          | Signalized           | A        | 9.3             | B              | 11.3                | A             | 9.6                 | B              | 10.7                |
| 710             | Smith Avenue at 33rd Street <sup>b</sup>                          | Signalized           | B        | 15.1            | C              | 29.8                | B             | 18.3                | B              | 15.0                |
| 711             | McDougall Avenue at Pacific Avenue <sup>b,c,d</sup>               | TWSC <sup>h</sup>    | C        | 22.1            | F              | 91.4                | C             | 33.3                | A              | 6.6                 |
| 712             | McDougall Avenue at 32nd Street                                   | AWSC                 | A        | 7.8             | A              | 8.8                 | A             | 8.5                 | A              | 7.8                 |
| 713             | Smith Avenue at Community Transit Swift Blue Line Driveway        | TWSC                 | A        | 8.8             | - <sup>i</sup> | - <sup>i</sup>      | A             | 9.1                 | A              | 9.0                 |
| 714             | Smith Avenue at Everett Transit Center South Parking Lot Driveway | TWSC                 | B        | 11.4            | B              | 12.3                | B             | 11.9                | B              | 12.0                |
| 715             | Broadway at 33rd Street                                           | Signalized           | B        | 18.3            | C              | 32.8                | C             | 24.4                | C              | 22.0                |
| 716             | Broadway at 34th Street <sup>c,d</sup>                            | TWSC                 | F        | 59.1            | F              | 104.5               | F             | 104.5               | F              | 104.5               |
| 717             | Broadway at 35th Street <sup>c,d</sup>                            | TWSC                 | F        | 102.5           | F              | 139.8               | F             | 206.6               | F              | 131.0               |
| 718             | Broadway at 36th Street <sup>c,d</sup>                            | TWSC                 | F        | 106.1           | F              | >300.0 <sup>j</sup> | F             | >300.0 <sup>j</sup> | F              | >300.0 <sup>j</sup> |
| 719             | Pacific Avenue at Fulton Street <sup>b</sup>                      | Signalized           | A        | 10.0            | B              | 14.9                | B             | 14.8                | B              | 14.9                |
| 720             | Hill Avenue at Eastside Park-and-Ride Driveway                    | OWSC                 | A        | 9.3             | B              | 12.8                | B             | 12.8                | B              | 12.8                |
| 721             | Hill Avenue at 33rd Street                                        | TWSC                 | A        | 9.7             | A              | 9.8                 | A             | 9.7                 | A              | 9.7                 |
| 722             | Smith Avenue at EVT-A Station Transit Access                      | TWSC                 | -        | -               | B              | 11.2                | -             | -                   | -              | -                   |



| ID <sup>a</sup> | Intersection                                                 | Intersection Control | No Build |                 | Station EVT-A |                 | Station EVT-C |                 | Station EVT-D |                 |
|-----------------|--------------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
|                 |                                                              |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 723             | McDougall Avenue at EVT-A Station Transit Access             | OWSC                 | -        | -               | B             | 10.8            | -             | -               | -             | -               |
| 724             | McDougall Avenue at 33rd Avenue                              | AWSC                 | -        | -               | B             | 10.3            | -             | -               | -             | -               |
| 725             | 33rd Street at EVT-C Vehicular Access                        | OWSC                 | -        | -               | -             | -               | B             | 10.9            | -             | -               |
| 726             | 32nd Street at EVT-C Vehicular Access                        | TWSC                 | -        | -               | -             | -               | A             | 9.1             | -             | -               |
| 727             | 33rd Street at EVT-C Station Transit Access/McDougall Avenue | AWSC                 | -        | -               | -             | -               | A             | 7.6             | -             | -               |

NOTES:

- Intersection 707 was removed from the analysis as the proposed station access point for Station EVT-D changed during the preliminary design phase.
- Reported using HCM 2000 methodology due to non-standard phasing.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- Build condition does not meet jurisdictional LOS threshold and has at least a 15 second increase in delay compared to the No Build condition in the conditions(s) **bolded**.
- Intersection would become signalized with Station EVT-C.
- Would change to right-turn in/out only in Station EVT-C and Station EVT-D Build conditions.
- Intersection would be removed with construction of Station EVT-D.
- Would change to signalized with Station EVT-C and Station EVT-D.
- Assumed relocation of BRT stops to be adjacent to Station EVT-A.
- Delay is limited to 300 seconds in reporting model results and calculating mitigation thresholds.

**Table 4-36 2046 PM Peak Hour Intersection Level of Service – Everett Station Segment**

| ID <sup>a</sup> | Intersection                                                      | Intersection Control | No Build |                     | Station EVT-A  |                              | Station EVT-C |                              | Station EVT-D  |                              |
|-----------------|-------------------------------------------------------------------|----------------------|----------|---------------------|----------------|------------------------------|---------------|------------------------------|----------------|------------------------------|
|                 |                                                                   |                      | LOS      | Delay (sec/veh)     | LOS            | Delay (sec/veh)              | LOS           | Delay (sec/veh)              | LOS            | Delay (sec/veh)              |
| 701             | Broadway at Hewitt Avenue                                         | Signalized           | C        | 32.6                | D              | 48.2                         | D             | 48.9                         | D              | 50.8                         |
| 702             | Broadway at Wall Street                                           | Signalized           | B        | 13.1                | B              | 11.4                         | A             | 9.5                          | D              | 46.5                         |
| 703             | Broadway at Pacific Avenue                                        | Signalized           | D        | 44.5                | D              | 44.2                         | D             | 53.7                         | D              | 54.7                         |
| 704             | Broadway at 32nd Street <sup>b</sup>                              | TWSC <sup>c</sup>    | F        | >300.0 <sup>d</sup> | F              | >300.0 <sup>d</sup>          | B             | 22.1                         | F              | >300.0 <sup>d</sup>          |
| 705             | Wall Street at EVT-D Station Access                               | TWSC                 | A        | 9.7                 | A              | 9.9                          | A             | 9.6                          | C              | 16.7                         |
| 706             | Pacific Avenue at EVT-C/EVT-D Station Access                      | TWSC <sup>e</sup>    | A        | 9.8                 | B              | 11.7                         | C             | 17.6                         | - <sup>f</sup> | - <sup>f</sup>               |
| 708             | Smith Avenue at Pacific Avenue <sup>g</sup>                       | Signalized           | C        | 28.5                | C              | 34.8                         | D             | 40.4                         | C              | 27.6                         |
| 709             | Smith Avenue at 32nd Street <sup>g</sup>                          | Signalized           | B        | 14.1                | B              | 18.8                         | B             | 16.8                         | B              | 16.1                         |
| 710             | Smith Avenue at 33rd Street <sup>g</sup>                          | Signalized           | C        | 22.1                | C              | 30.1                         | D             | 41.3                         | C              | 23.5                         |
| 711             | McDougall Avenue at Pacific Avenue <sup>b,g,h</sup>               | TWSC <sup>i</sup>    | F        | 51.5                | <b>F</b>       | <b>234.7</b>                 | A             | 7.6                          | C              | 23.2                         |
| 712             | McDougall Avenue at 32nd Street                                   | AWSC                 | A        | 8.8                 | B              | 11.3                         | A             | 8.3                          | A              | 8.7                          |
| 713             | Smith Avenue at Community Transit Swift Blue Line Driveway        | TWSC                 | C        | 20.1                | - <sup>j</sup> | - <sup>j</sup>               | C             | 23.2                         | C              | 22.4                         |
| 714             | Smith Avenue at Everett Transit Center South Parking Lot Driveway | TWSC                 | C        | 24.3                | D              | 26.9                         | D             | 27.3                         | D              | 26.1                         |
| 715             | Broadway at 33rd Street                                           | Signalized           | B        | 14.5                | C              | 33.9                         | C             | 20.5                         | B              | 16.0                         |
| 716             | Broadway at 34th Street <sup>b,h</sup>                            | TWSC                 | E        | 44.1                | <b>F</b>       | <b>71.5</b>                  | F             | 59.0                         | <b>F</b>       | <b>69.0</b>                  |
| 717             | Broadway at 35th Street <sup>b,h</sup>                            | TWSC                 | F        | 78.0                | <b>F</b>       | <b>165.9</b>                 | <b>F</b>      | <b>&gt;300.0<sup>d</sup></b> | <b>F</b>       | <b>125.1</b>                 |
| 718             | Broadway at 36th Street <sup>b,h</sup>                            | TWSC                 | F        | >300.0 <sup>d</sup> | <b>F</b>       | <b>&gt;300.0<sup>d</sup></b> | <b>F</b>      | <b>&gt;300.0<sup>d</sup></b> | <b>F</b>       | <b>&gt;300.0<sup>d</sup></b> |
| 719             | Pacific Avenue at Fulton Street <sup>b,g,h</sup>                  | Signalized           | B        | 13.8                | <b>F</b>       | <b>84.1</b>                  | <b>E</b>      | <b>68.4</b>                  | <b>E</b>       | <b>68.4</b>                  |
| 720             | Hill Avenue at Eastside Park-and-Ride Driveway                    | OWSC                 | A        | 9.1                 | C              | 16.2                         | C             | 16.0                         | C              | 16.0                         |
| 721             | Hill Avenue at 33rd Street                                        | TWSC                 | A        | 9.4                 | A              | 9.4                          | A             | 9.2                          | A              | 9.2                          |
| 722             | Smith Avenue at EVT-A Station Transit Access                      | TWSC                 | -        | -                   | C              | 16.1                         | -             | -                            | -              | -                            |

| ID <sup>a</sup> | Intersection                                                 | Intersection Control | No Build |                 | Station EVT-A |                 | Station EVT-C |                 | Station EVT-D |                 |
|-----------------|--------------------------------------------------------------|----------------------|----------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
|                 |                                                              |                      | LOS      | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) | LOS           | Delay (sec/veh) |
| 723             | McDougall Avenue at EVT-A Station Transit Access             | OWSC                 | -        | -               | C             | 15.4            | -             | -               | -             | -               |
| 724             | McDougall Avenue at 33rd Avenue                              | AWSC                 | -        | -               | B             | 14.4            | -             | -               | -             | -               |
| 725             | 33rd Street at EVT-C Vehicular Access                        | OWSC                 | -        | -               | -             | -               | B             | 11.5            | -             | -               |
| 726             | 32nd Street at EVT-C Vehicular Access                        | TWSC                 | -        | -               | -             | -               | A             | 9.9             | -             | -               |
| 727             | 33rd Street at EVT-C Station Transit Access/McDougall Avenue | AWSC                 | -        | -               | -             | -               | A             | 9.4             | -             | -               |

NOTES:

- a) Intersection 707 was removed from the analysis as the proposed station access point for Station EVT-D changed during the preliminary design phase.
- b) Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- c) Intersection would become signalized with Station EVT-C.
- d) Delay is limited to 300 seconds in reporting model results and calculating mitigation thresholds.
- e) Would change to right-turn in/out only in Station EVT-C and Station EVT-D Build conditions.
- f) Intersection would be removed with construction of Station EVT-D.
- g) Reported using HCM 2000 methodology due to non-standard phasing.
- h) Build condition does not meet jurisdictional LOS threshold and has at least a 15 second increase in delay compared to the No Build condition in the conditions(s) **bolded**.
- i) Would change to signalized with Station EVT-C and Station EVT-D.
- j) Assumed relocation of BRT stops to be adjacent to Station EVT-A.

**Figure 4-34 Everett Station 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-35 Everett Station 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**





**OMF Site B (SR 526)**

All study intersections for OMF Site B would operate at acceptable standards for the City of Everett. All intersections were evaluated with OMF Site B trips added to future forecast traffic volumes. Intersection LOS in the vicinity of OMF Site B is summarized in Table 4-37 for the AM peak hour and Table 4-38 for the PM peak hour. Intersection LOS is shown in Figure 4-36 for the AM peak hour and Figure 4-37 for the PM peak hour. The results are shown in Attachment B.

**Table 4-37 2046 AM Peak Hour Intersection Level of Service – OMF Site B**

| ID  | Intersection                                 | Intersection Control | No Build |                 | OMF Site B |                 |
|-----|----------------------------------------------|----------------------|----------|-----------------|------------|-----------------|
|     |                                              |                      | LOS      | Delay (sec/veh) | LOS        | Delay (sec/veh) |
| 801 | 75th Street at Seaway Boulevard <sup>a</sup> | Signalized           | D        | 35.9            | D          | 35.6            |
| 802 | 75th Street at SnoPUD <sup>a</sup>           | Signalized           | A        | 9.4             | A          | 9.2             |
| 803 | 75th Street at Hardeson Road <sup>a</sup>    | Signalized           | C        | 26.3            | C          | 26.3            |
| 804 | 75th Street at 16th Avenue W                 | TWSC                 | B        | 14.3            | B          | 13.1            |
| 812 | 75th Street at Site Access                   | OWSC                 | -        | -               | B          | 10.5            |

NOTES:

- a) Reported using HCM 2000 methodology due to non-standard phasing.

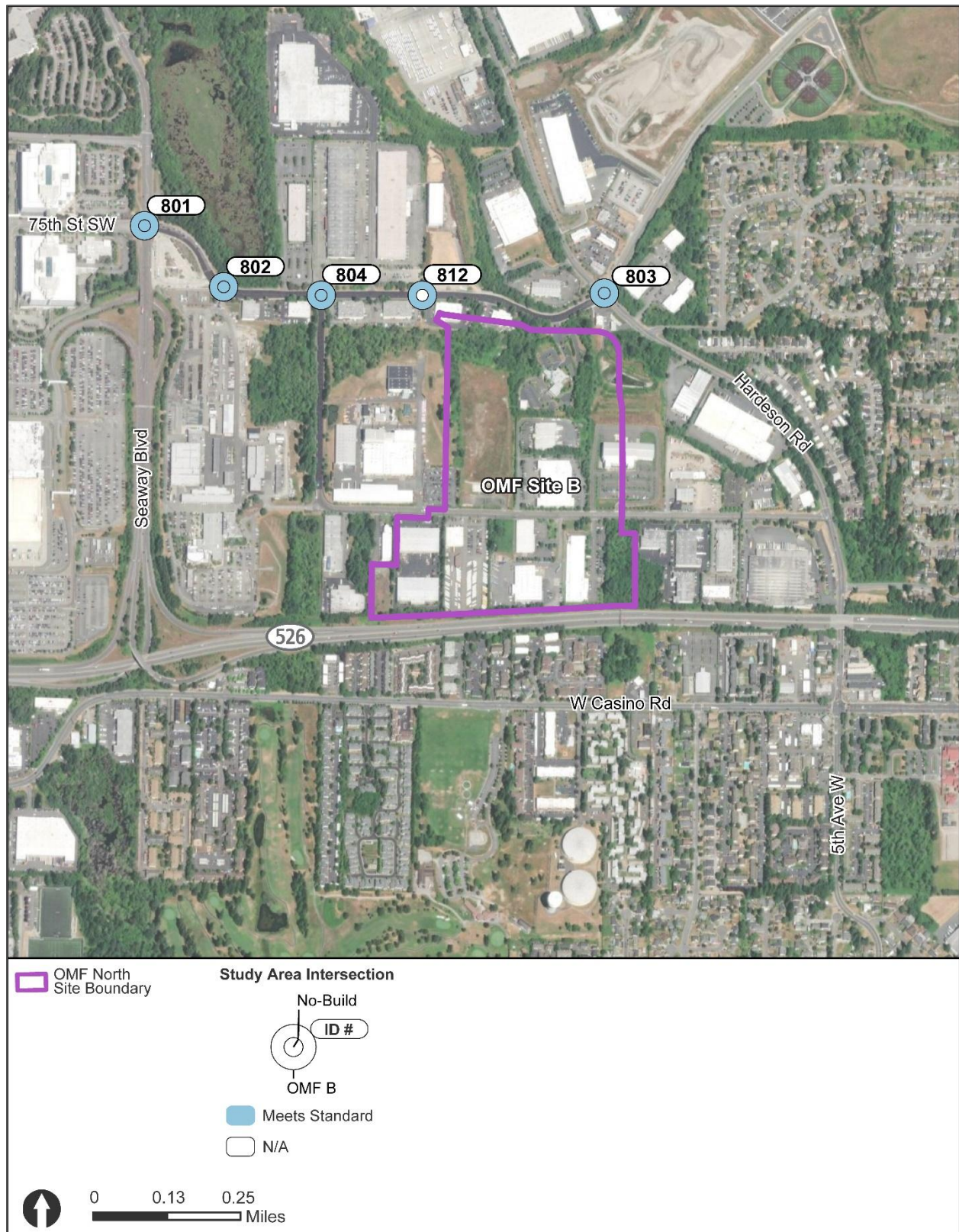
**Table 4-38 2046 PM Peak Hour Intersection Level of Service – OMF Site B**

| ID  | Intersection                                 | Intersection Control | No Build |                 | OMF Site B |                 |
|-----|----------------------------------------------|----------------------|----------|-----------------|------------|-----------------|
|     |                                              |                      | LOS      | Delay (sec/veh) | LOS        | Delay (sec/veh) |
| 801 | 75th Street at Seaway Boulevard <sup>a</sup> | Signalized           | C        | 28.0            | D          | 28.0            |
| 802 | 75th Street at SnoPUD <sup>a</sup>           | Signalized           | A        | 7.7             | A          | 7.8             |
| 803 | 75th Street at Hardeson Road <sup>a</sup>    | Signalized           | D        | 53.7            | D          | 53.9            |
| 804 | 75th Street at 16th Avenue W                 | TWSC                 | C        | 21.3            | C          | 15.6            |
| 812 | 75th Street at Site Access                   | OWSC                 | -        | -               | B          | 13.9            |

NOTES:

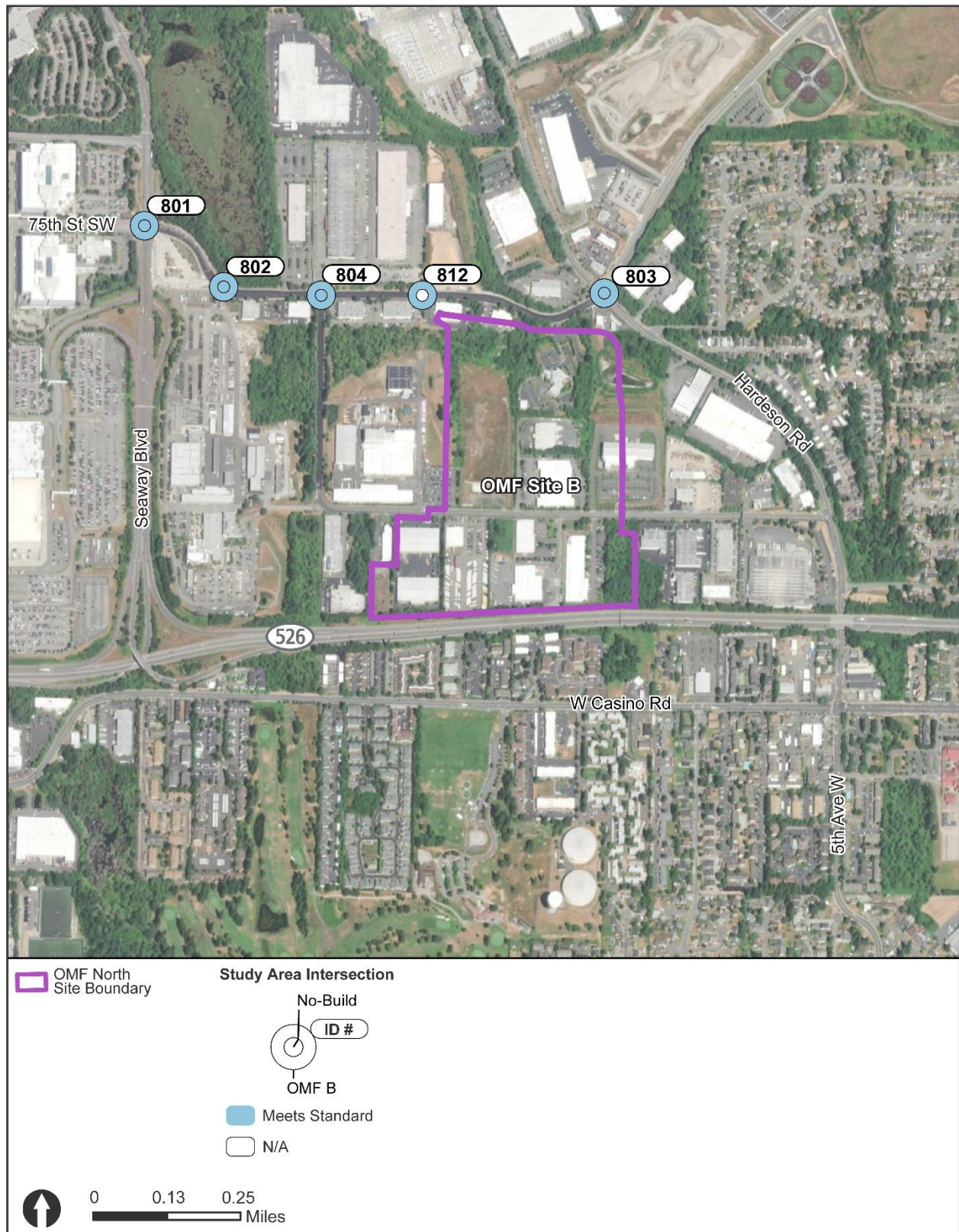
- a) Reported using HCM 2000 methodology due to non-standard phasing.

**Figure 4-36 OMF Site B 2046 No Build and Build Alternatives Traffic Operations – AM Peak Hour**





**Figure 4-37 OMF Site B 2046 No Build and Build Alternatives Traffic Operations – PM Peak Hour**



## 4.4 Parking

This section documents the amount of public on-street and off-street parking open to the general public that would be removed by the Build Alternatives and assesses the potential for the station parking demand to exceed capacity. In areas where parking demand may exceed available supply at the stations, the potential for spillover to nearby on-street parking that surrounds the station areas was assessed.

### 4.4.1 Build Alternatives

#### 4.4.1.1 Impacts Common to All Build Alternatives

Operational parking impacts surrounding the stations without Sound Transit-provided park-and-ride spaces could occur if existing unrestricted parking were to accommodate spillover parking. Ash Way, Mariner, SR 526/Evergreen, and Everett Stations all have areas of unrestricted parking within their study areas that could be used by light rail riders who park all day to commute elsewhere (see Section 3.4). This spillover parking could adversely affect local businesses and residents who rely on that parking for other purposes. At the Mariner and Everett Station areas, the project would create parking facilities intended to accommodate transit riders who would drive and park to access the light rail system.

Consistent with existing light rail stations in the Sound Transit service area, Sound Transit expects that local agencies could manage parking within the vicinity of new stations by placing restrictions (including time limits or permit restrictions) where they do not already exist to disallow transit-specific parking. This change in curb management could help avoid parking impacts. Owners of parking lots available for public parking near the stations might also choose to change pricing or parking permit approaches to discourage use of the lots as a long-term park-and-ride.

Operational impacts would also occur where there may be permanent removal of parking spaces by the project. The potential operational parking impacts, where parking spaces would be permanently removed for project use at the new station locations and along the alignments are described further by segment and OMF North site alternative below.

The potential for increased land use and development density around station areas in the EVLE Project corridor could increase the demand for parking in these areas. The demand for park-and-ride spaces beyond 0.25 miles from the stations could increase because riders could park along bus routes that connect to the stations and travel to the station by bus. There could be reduced demand at park-and-rides on parallel corridors from riders shifting to the light rail service.

#### 4.4.1.2 West Alderwood Segment

Since there are no on-street parking or off-street public parking lots or structures within the study area, no public parking would be removed or otherwise impacted by the Build Alternatives in this segment. The West Alderwood Build Alternatives would impact some parking within the lot at Alderwood Mall. These impacts, and other impacts to private parking, are documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].



#### 4.4.1.3 Ash Way Segment

##### **Impacts Common to All Ash Way Segment Alternatives**

Neither of the Build Alternatives in the Ash Way Segment would remove on-street parking spaces.

##### **Alternative ASH-1A**

Station ASH-A would require reconfiguration of the existing parking at the Ash Way Park-and-Ride and result in the loss of approximately 537 parking spaces. This represents over half of the available parking spaces and since the utilization rate in 2023 was 72%, there may be some overflow demand.

#### 4.4.1.4 Mariner Segment

##### **Impacts Common to All Mariner Segment Alternatives**

Under all Mariner Segment Build Alternatives, a total of 550 off-street park-and-ride spaces would be provided.

All Mariner Segment Build Alternatives would require the reconfiguration of Mariner Park-and-Ride (currently 653 parking spaces). Prior to the project, the Mariner Park-and-Ride would have been reconfigured from its current state to accommodate the 130th Street crossing, a County-led project included in the No Build condition. The County project would remove approximately 190 parking spaces. The park-and-ride lot would be reconfigured by the EVLE Project to accommodate: a) the aerial guideway for Alternatives MAR-1B and MAR-1B with Surface Parking Design Option; or b) a parking structure for Alternative MAR-2D with additional bus layover bays provided for Alternatives MAR-2D and MAR-2D with Surface Parking Design Option.

Build Alternatives in this segment would result in the removal of six to 13 on-street parking spaces on the east side of 8th Avenue W between 130th Street SW and 132nd Street SW. The current on-street parking utilization rate of the 190 available on-street spaces in the study area is 17.1% (see Table 3-29).

**Table 4-39 Parking Impacts – Mariner Segment**

| Alternative                               | Removed Public On-Street Parking Spaces | Park-and-Ride Spaces        |                   |                      |
|-------------------------------------------|-----------------------------------------|-----------------------------|-------------------|----------------------|
|                                           |                                         | Removed Spaces <sup>a</sup> | EVLE Added Spaces | Total Spaces in 2046 |
| MAR-1B                                    | 6                                       | 271                         | 550               | 931                  |
| MAR-1B with Surface Parking Design Option | 6                                       | 271                         | 550               | 931                  |
| MAR-2D                                    | 13                                      | 542                         | 550               | 660                  |
| MAR-2D with Surface Parking Design Option | 13                                      | 236                         | 550               | 966                  |

NOTES:

- a) Includes parking removed for the 130th Street project and for EVLE.

All alternatives would substantially increase the amount of available parking. Considering the 15% peak utilization rate of the existing Mariner Park-and-Ride in 2023 and the reconfiguration

of the lot by Snohomish County, in conjunction with removal of six to 13 on-street spaces, the project would likely not have an adverse impact on parking availability in the area. Additional detail by alternative is provided below.

#### **Alternative MAR-1B**

There would be no additional parking impacts for Alternative MAR-1B beyond those common to all Build Alternatives in this segment.

#### **Alternative MAR-1B with Surface Parking Design Option**

Alternative MAR-1B with Surface Parking Design Option would have the same parking impacts as Alternative MAR-1B.

#### **Alternative MAR-2D**

The construction of a maintenance access driveway on the west side of 8th Avenue W north of 128th Street SW would remove seven additional on-street parking spaces as shown in Table 4-39. The removal of these spaces in addition to the removals noted above for all Mariner Segment Build Alternatives would not be expected to adversely impact local parking availability.

#### **Alternative MAR-2D with Surface Parking Design Option**

Alternative MAR-2D with Surface Parking Design Option would have the same parking impacts as Alternative MAR-2D.

#### **4.4.1.5 SR 99/Airport Road Segment**

There are no public parking lots or structures in the study area and neither of the Build Alternatives in the SR 99/Airport Road Segment would remove on-street parking.

#### **4.4.1.6 SW Everett Industrial Center Segment**

There are no on-street parking spaces or off-street public parking lots or structures in the SW Everett Industrial Center Segment study area. Therefore, no public parking would be removed by the Build Alternatives in this segment.

#### **4.4.1.7 SR 526/Evergreen Segment**

A summary of the SR 526/Evergreen Segment parking impacts is provided in Table 4-40.

**Table 4-40 Parking Impacts – SR 526/Evergreen Segment**

| Alternative                                    | Removed Public On-Street Parking Spaces |
|------------------------------------------------|-----------------------------------------|
| EGN-1A                                         | 38                                      |
| EGN-2B                                         | 3                                       |
| EGN-2B with North Side of SR 526 Design Option | 3                                       |
| EGN-3E                                         | 0                                       |
| EGN-3E with North Side of SR 526 Design Option | 0                                       |

### **Alternative EGN-1A**

Alternative EGN-1A would require removing 38 on-street parking spaces. The construction of a maintenance access driveway on the cul-de-sac end of 79th Place SE would remove two on-street parking spaces. Improvements to Beverly Lane built as part of the project would remove 36 on-street parking spaces. The removal of this on-street parking would not be anticipated to adversely impact parking availability, as there is currently a 9.5% parking utilization rate for the 349 on-street parking spaces available in the study area.

### **Alternative EGN-2B**

Alternative EGN-2B would remove three on-street parking spaces from the south end of Beverly Lane to accommodate a pedestrian connection to the non-motorized bridge over SR 526 that would be rebuilt as part of the project. The removal of three spaces from the 349 currently available on-street parking spaces in the study area would not adversely impact parking availability given the current rate of utilization is only 9.5%.

### **Alternative EGN-2B with North Side of SR 526 Design Option**

Alternative EGN-2B with Surface Parking Design Option would have the same parking impacts as Alternative EGN-2B.

### **Alternative EGN-3E**

Alternative EGN-3E would not remove any on-street parking spaces or off-street public parking lots or structures.

### **Alternative EGN-3E with North Side of SR 526 Design Option**

Alternative EGN-3E with Surface Parking Design Option would have the same parking impacts as Alternative EGN-3E – no parking spaces would be removed.

#### **4.4.1.8 Broadway/I-5 Segment**

A summary of the Broadway/I-5 Segment parking impacts is provided in Table 4-41.

**Table 4-41 Parking Impacts – Broadway/I-5 Segment**

| Alternative | Removed Public On-Street Parking Spaces |
|-------------|-----------------------------------------|
| BI-1        | 0                                       |
| BI-2        | 123                                     |

### **Alternative BI-1**

No on- or off-street parking spaces would be removed under Alternative BI-1. Several street ends would be converted into cul-de-sacs (at Jackson Avenue, Monroe Avenue, Madison Street, Howard Avenue, Melvin Avenue, Lexington Avenue, Euclid Avenue, and 62nd Street SE), which may provide up to three additional on-street parking spaces at each street end.

### **Alternative BI-2**

Alternative BI-2 would run alongside the west side of Broadway, removing many opportunities for use of the currently unregulated on-street parking. In total, on-street space for up to 104

vehicles would be removed on the west side of Broadway between Beverly Boulevard and 52nd Street SE. On-street space for another 19 vehicles would be removed from the north side of Lexington Avenue between Lombard Avenue and Broadway for construction of a guideway maintenance access point. The project's conversion of several street intersections with Broadway into cul-de-sacs (at Spokane Drive, 20th Avenue SE, 78th Place SE, and 73rd Street SE) would provide up to three additional parking spaces each, though these potential additions would not replace the removed parking on Broadway and Lexington Avenue. Since the Broadway/I-5 Segment is primarily residential developments with off-street parking, the removal of the parking spaces is unlikely to affect overall parking availability.

#### 4.4.1.9 Everett Station Segment

##### *Impacts Common to All Everett Station Segment Alternatives*

Under all Build Alternatives in the Everett Station Segment, 1,000 park-and-ride spaces would be provided per ST3. The current parking utilization in the study area is 43.6% of 1,299 available on-street parking spaces and 46.2% of 2,030 available off-street parking spaces. All Build Alternatives in the Everett Station Segment would also remove approximately seven unregulated on-street parking spaces near the Evergreen Funeral Home and Cemetery. A summary of the Everett Station Segment parking impacts is provided in Table 4-42.

**Table 4-42 Parking Impacts – Everett Station Segment**

| Alternative | Removed Public On-Street Parking Spaces | Park-and-Ride Spaces |                   |                      |
|-------------|-----------------------------------------|----------------------|-------------------|----------------------|
|             |                                         | Removed Spaces       | EVLE Added Spaces | Total Spaces in 2046 |
| EVT-1A      | 102                                     | 640                  | 1,000             | 1,508                |
| EVT-2C      | 120                                     | 360                  | 1,000             | 1,788                |
| EVT-3D      | 133                                     | 360                  | 1,000             | 1,788                |

##### **Alternative EVT-1A**

Alternative EVT-1A would remove 102 on-street parking spaces on 32nd Street, 33rd Street, Broadway, McDougall Avenue, and Smith Avenue and 640 park-and-ride spaces. Given that current combined on- and off-street parking utilization is 45.2% of 3,329 available spaces and 1,000 park-and-ride spaces would be provided upon project completion, the removal of 102 on-street parking spaces would not be expected to adversely impact local parking availability.

##### **Alternative EVT-2C**

Alternative EVT-2C would remove 120 on-street parking spaces on 32nd Street, 33rd Street, and McDougall Avenue and 360 park-and-ride spaces. Given that current combined on- and off-street parking utilization is 45.2% of 3,329 available spaces and 1,000 park-and-ride spaces would be provided upon project completion, the removal of these parking spaces would likely not adversely impact local parking availability.

##### **Alternative EVT-3D**

Alternative EVT-3D would remove 133 on-street parking spaces on Wall Street, Broadway, McDougall Avenue, and Paine Avenue and 360 park-and-ride spaces. Given that current combined on- and off-street parking utilization is 45.2% of 3,329 available spaces and 1,000

park-and-ride spaces would be provided upon project completion, the removal of these parking spaces would likely not adversely impact local parking availability.

#### **4.4.1.10 OMF North**

Since OMF North would not be open to the public, parking was not analyzed. Impacts to private properties located within the OMF North site alternatives, which would include private parking where it exists, is documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].

#### **4.4.2 No Build Alternative**

With the No Build Alternative, Sound Transit's project would not remove on-street or off-street public parking or change parking characteristics in the study area.

### **4.5 Non-Motorized Facilities**

This section describes project changes to pedestrian and bicycle facilities and circulation. Walksheds and bikesheds were used to show the areas around each station that would be accessible to pedestrians and bicyclists.

Walksheds and bikesheds are defined as the distance a person can walk or bicycle in 10 minutes from each station, which translates to roughly a 0.5-mile walk distance and a 1.5-mile bicycle distance.

#### **4.5.1 Pedestrian and Bicycle Trip Generation**

For the No Build Alternative, future pedestrian and bicycle volumes were developed at the study area intersections from the existing data and population and employment growth forecasts surrounding each station area.

For the Build Alternatives, the number of non-motorized users within a station area is based on an estimate of the number of non-motorized users accessing the station that would walk to or from the following:

- A park-and-ride facility.
- A passenger drop-off/pickup area.
- A transit transfer area (bus to bus, bus to rail).
- Surrounding land uses.

AM and PM peak period mode of access information for each station was obtained from the Sound Transit Incremental Ridership Model. PM peak period information was used because ridership and pedestrian volumes are higher than the AM peak period. Trips were distributed between the platforms and the facilities listed above that would be within or surrounding the station area. Non-motorized trips were distributed to and from each station based on an assessment of adjacent land uses and an estimate of where non-motorized-based trips would be generated.



To further assess non-motorized facility performance at each station under the Build Alternatives, forecasted pedestrian and bicycle trips to/from the station were distributed to the four quadrants of each station. The proportion of the non-motorized trips via each quadrant was determined based on land use intensity, major trip generators, non-motorized facilities, and major barriers (e.g., freeway, wetland, railroad, etc.) within the station walksheds and bikesheds. An overview of pedestrian and bicycle trip distribution result at each station and for each Build Alternative are documented in Attachment E. Furthermore, the non-motorized trip distribution at stations enables detailed pedestrian traffic volume assignment at the intersection level. It also enables intersection-level pedestrian LOS analysis at stations with substantial pedestrian volume increase due to the project. This analysis is further discussed in the sections below.

## **4.5.2 Build Alternatives**

### **4.5.2.1 Impacts Common to All Build Alternatives**

The EVLE Project could affect how pedestrians access and circulate within each of the station areas, which could result in differences in non-motorized flows that would not occur under the No Build Alternative.

Most of the guideway for the Build Alternatives would be elevated and cross over existing streets. Where a Build Alternative would not be elevated over an existing street, the guideway would either cross under the existing street or the street would be closed and access would be rerouted. Where streets would be closed, the Build Alternative could create a barrier for nonmotorized travel. Where the EVLE Project would require roadway reconstruction, sidewalks built to minimum ADA requirements would be included. All station alternatives would provide short- and long-term bicycle parking in a centralized location, which would include lockers and bicycle racks.

The EVLE Project would include pedestrian and bicycle improvements at stations to safely accommodate the projected increase in pedestrian and bicycle travel. As part of ST3, Sound Transit dedicated \$59 million (in 2023 dollars) to the Station Access Allowance (SAA) fund for these non-motorized improvements. Potential non-motorized projects are being identified for SAA funding in consultation with local jurisdictions and are not part of the EVLE Project.

### **4.5.2.2 West Alderwood Segment**

#### ***Impacts Common to All West Alderwood Segment Alternatives***

For all West Alderwood Build Alternatives, there would be approximately 373 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

I-5 would be a barrier to walking and biking between the station and areas to the east. Non-motorized users accessing the station would be able to cross I-5 using the future Poplar Way Extension Bridge or via Alderwood Mall Parkway.

Non-motorized users would most likely access the station in this segment via existing bicycle lanes along 33rd Avenue W and Alderwood Mall Parkway, the Interurban Trail, and sidewalks surrounding Brookfield Mall. Due to the station alternatives' locations within the Alderwood Mall parking lot, it is possible that some pedestrians and bicyclists may choose to circulate through parking lots adjacent to the station area.

#### 4.5.2.3 Ash Way Segment

##### ***Impacts Common to All Ash Way Segment Alternatives***

For both Ash Way Build Alternatives, there would be approximately 517 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

Non-motorized users would most likely access the station in this segment via existing sidewalks and bicycle lanes along 164th Street SW and Ash Way as well as the Interurban Trail. The bicycle lanes along Ash Way are currently located between Alder Way and 18th Place but are planned for extension north to Admiralty Way.

##### ***Alternative ASH-1A***

I-5 would be a barrier to walking and biking between the station and areas to the east. Non-motorized users accessing the station would be able to cross I-5 via 164th Street SW.

##### ***Alternative ASH-2D***

I-5 would be a barrier to walking and biking between the station and areas to the west. Non-motorized users accessing the station would be able to cross I-5 via 164th Street SW.

The current alignment of Motor Place would be reconfigured such that Motor Place would be curved towards the existing signalized intersection with 14th Place W. This reconstructed Motor Place/14th Place W would have sidewalks on both sides, a two-way left-turn lane, and two crosswalks for pedestrians to access the east side of this roadway. This redesigned roadway would be expected to experience increased vehicle and non-motorized volumes due to station access activity.

#### 4.5.2.4 Mariner Segment

##### ***Impacts Common to All Mariner Segment Alternatives***

For all Mariner Build Alternatives, there would be approximately 660 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

I-5 would be a barrier to walking and biking between the station and areas to the east. Non-motorized users accessing the station would be able to cross I-5 using the future 130th Street extension or via 128th Street SW.

Non-motorized users would most likely access the station via existing sidewalks and bicycle lanes along Airport Road and 128th Street SW as well as the Interurban Trail. The bicycle lanes along 128th Street SW are currently located between E Gibson Road and 8th Avenue W but are planned for extension east to 4th Avenue W.

#### 4.5.2.5 SR 99/Airport Road Segment

##### ***Impacts Common to All SR 99/Airport Road Segment Alternatives***

For both SR 99/Airport Road Build Alternatives, there would be approximately 112 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

There are no major barriers to accessing either station alternative in this segment. Non-motorized users would most likely access the station in this segment via existing sidewalks along both Airport Road and SR 526 and bicycle lanes along Airport Road.

#### ***Alternative AIR-1A***

Station AIR-A would include new pedestrian crossings of Airport Road and SR 99 at Center Road.

#### ***Alternative AIR-2B***

Station AIR-B would include new pedestrian crossings of Airport Road at Center Road.

### **4.5.2.6 SW Everett Industrial Center Segment**

#### ***Impacts Common to All SW Everett Industrial Center Segment Alternatives***

For all SW Everett Industrial Center Build Alternatives, there would be approximately 217 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

Paine Field would be a barrier to walking and biking between the station and areas to the west. There are no non-motorized connections from west of Paine Field except via Beverly Park Road south of Paine Field.

Non-motorized users would most likely access the station in this segment via existing sidewalks and bicycle lanes along Airport Road and W Casino Road.

#### ***Alternative SWI-1A***

SR 526 would be a barrier to walking and biking between the station and areas to the north, including the Boeing Everett Production Facility. There are no non-motorized connections across SR 526 in the segment, but Sound Transit is coordinating with Boeing to study the feasibility of a pedestrian bridge crossing of SR 526 between Station SWI-A and the Boeing parking lot.

#### ***Alternative SWI-1B***

SR 526 would be a barrier to walking and biking between the station and areas to the north. There are no non-motorized connections across SR 526 in the segment.

#### ***Alternative SWI-1C***

Alternative SWI-1C does not have additional barriers or non-motorized access points than what is common to all alternatives. This alternative would include a new pedestrian walkway between the station and the intersection of Airport Road and 100th Street SW to provide non-motorized access to the station from Airport Road.

#### **4.5.2.7 SR 526/Evergreen Segment**

##### ***Impacts Common to All SR 526/Evergreen Segment Alternatives***

For all SR 526/Evergreen Build Alternatives, there would be approximately 402 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be traveling to and from residential areas outside of the station area.

All alternatives in this segment would reroute a portion of the Interurban Trail north of SR 526 and east of E Casino Road, causing it to curve northeast of Pinkerton Avenue before reconnecting to the existing portions of the trail.

##### ***Alternative EGN-1A***

SR 526 would be a barrier to walking and biking between the station and areas to the south. While non-motorized users could cross SR 526 via Evergreen Way, there are safety and accessibility concerns. A new pedestrian bridge, compliant with ADA requirements, would replace the existing pedestrian bridge, starting on the north side of SR 526 on Beverly Lane and extending to the south side of SR 526 to E Casino Road. Non-motorized users would most likely access the station from the south using this new pedestrian bridge. Other non-motorized users would mostly like access the station via existing sidewalks along Evergreen Way or via the Interurban Trail. However, there is no designated bicycle connection from the Interurban Trail to the station area itself. Station EGN-A would also include two new pedestrian crossings of Evergreen Way.

##### ***Alternative EGN-2B***

SR 526 would be a barrier to walking and biking between the station and areas to the north. While non-motorized users could cross SR 526 via Evergreen Way, there are safety and accessibility concerns. A new pedestrian bridge, compliant with ADA requirements, would replace the existing pedestrian bridge, starting on the north side of SR 526 on Beverly Lane and extending to the south side of SR 526 to E Casino Road. Non-motorized users would most likely access the station from the north using this new pedestrian bridge. Other non-motorized users would most likely access the station via existing sidewalks and bicycle lane along E Casino Road or via the Interurban Trail. However, there is no designated bicycle connection from the Interurban Trail to the station area itself. Station EGN-B would also include one new pedestrian crossing on both W Casino Road and Evergreen Way.

Alternative EGN-2B would include moving a portion of Casino Road west of 18th Avenue W to the south and adding new sidewalks to both sides of the street.

##### ***Alternative EGN-2B with North Side of SR 526 Design Option***

Alternative EGN-2B with North Side of SR 526 Design Option would have the same non-motorized impacts as Alternative EGN-2B; however, it would not require the portion of Casino Road west of 18th Avenue W to be moved to the south.

##### ***Alternative EGN-3E***

SR 526 would be a barrier to walking and biking between the station and areas to the north. Non-motorized users would most likely access the station via existing sidewalks and bicycle lane along E Casino Road or via the Interurban Trail. However, there is no designated bicycle connection from the Interurban Trail to the station area itself. Station EGN-E would include two

new pedestrian crossings of both W Casino Road and Holly Drive and one new pedestrian crossing of Evergreen Way.

Alternative EGN-3E would include moving a portion of Casino Road west of 18th Avenue W to the south and adding new sidewalks to both sides of the street.

#### ***Alternative EGN-3E with North of SR 526 Design Option***

Alternative EGN-3E with North Side of SR 526 Design Option would have the same non-motorized impacts as Alternative EGN-3E; however, it would not require the portion of Casino Road west of 18th Avenue W to be moved to the south.

#### **4.5.2.8 Broadway/I-5 Segment**

##### ***Impacts Common to All Broadway/I-5 Segment Alternatives***

The Build Alternatives in the Broadway/I-5 Segment do not have a station and would not have permanent effects on pedestrian facilities, volumes, or conditions in this segment.

#### **4.5.2.9 Everett Station Segment**

##### ***Impacts Common to All Everett Station Segment Alternatives***

For all Everett Station Build Alternatives, there would be approximately 1,279 pedestrian and bicycle trips associated with the station during the PM peak period, which would likely be transferring to/from adjacent bus and railroad lines or traveling to/from residential and commercial areas outside of the station area.

I-5 would be a barrier for walking and biking between the station and areas to the east. Non-motorized users would most likely cross I-5 via Smith Avenue, Pacific Avenue, or Hewitt Avenue.

Everett Station was identified as a station with substantial pedestrian volumes that warranted a detailed pedestrian LOS analysis. Pedestrian LOS is an indication of the typical pedestrian's perception of the overall crossing experience. At Everett Station, pedestrian LOS would be primarily affected by signal timing, intersection size, and turning vehicle volume at the signalized intersections around the station.

Table 4-43 summarizes the 2046 peak-hour pedestrian LOS results at the signalized intersections around Everett Station. The pedestrian LOS rating was derived based on the pedestrian mode method in the HCM. Adjacent two-way stop intersections were not analyzed since the closely spaced signalized intersections serve as the designated and most practical street crossings for pedestrians. The results indicate that pedestrians should expect acceptable LOS at the signalized crossings around the station under all Build Alternatives. This assumes that pedestrian-friendly signal timing features, such as protected left-turn phasing, negative pedestrian overlap, and others, remain in place and/or are implemented as planned by the City of Everett.



**Table 4-43 Pedestrian LOS at Signalized Intersections Around Everett Station**

| Alternative | Signalized Intersections        | 2046 AM Peak Hour |   |   |   | 2046 PM Peak Hour |   |   |   |
|-------------|---------------------------------|-------------------|---|---|---|-------------------|---|---|---|
| Direction   |                                 | W                 | E | S | N | W                 | E | S | N |
| EVT-1A      | Smith Avenue/32nd Street        | B                 | B | B | B | B                 | B | B | B |
|             | Smith Avenue/33rd Street        | B                 | B | B | B | B                 | B | B | B |
| EVT-2C      | Broadway/Pacific Avenue         | C                 | C | C | C | C                 | C | C | C |
|             | Broadway/32nd Street            | B                 | B | C | C | B                 | B | C | C |
|             | Broadway/33rd Street            | B                 | B | C | C | B                 | B | C | C |
|             | Pacific Avenue/McDougall Avenue | C                 | C | B | B | C                 | C | B | B |
| EVT-3D      | Broadway/Hewitt Avenue          | C                 | B | C | C | C                 | C | C | C |
|             | Broadway/Wall Street            | B                 | B | C | C | B                 | B | C | C |
|             | Broadway/Pacific Avenue         | C                 | C | C | C | C                 | C | C | C |
|             | Pacific Avenue/McDougall Avenue | C                 | C | B | B | C                 | C | B | B |

**Alternative EVT-1A**

Non-motorized users would most likely access the station via existing sidewalks along Smith Avenue, Pacific Avenue, 32nd Street, and 33rd Street, existing bicycle lanes along Smith Avenue, and planned bicycle lanes along Fulton Street. However, there is no designated bicycle connection between the planned Fulton Street bicycle lane and the station area. The EVT-A station area would include four new pedestrian crossings of McDougall Avenue, three new crossings of 33rd Street, and two new crossings of 32nd Street. Station EVT-A would also require construction of a transit-only street parallel to 33rd Street and 32nd Street that would include three pedestrian crossings.

**Alternative EVT-2C**

Non-motorized users would most likely access the station via existing sidewalks along Broadway, McDougall Avenue, Smith Avenue, Pacific Avenue, 32nd Street, and 33rd Street, existing bicycle lanes along Smith Avenue, and planned bicycle lanes along Fulton Street. However, there is no designated bicycle connection between the planned Fulton Street bicycle lane and the station area. Station EVT-C would include two new pedestrian crossings of Pacific Avenue, three new crossings of McDougall Avenue, two new crossing of 33rd Street, and six new crossings of 32nd Street. Station EVT-C station would also require construction of a transit-only street parallel to Broadway and McDougall Avenue that would include five pedestrian crossings.

**Alternative EVT-3D**

Non-motorized users would most likely access the station via existing sidewalks along Broadway, Hewitt Avenue, Pacific Avenue, Wall Street, McDougall Avenue, and Smith Avenue, existing bicycle lanes along California Street west of Broadway, and planned bicycle lanes along Fulton Street and California Street east of Broadway. The EVT-D station area would include two new pedestrian crossings of Pacific Avenue and McDougall Avenue, three new crossings of Wall Street, and one new crossing of Smith Avenue. Station EVT-D would also require construction of a transit-only street parallel to Broadway and McDougall Avenue that would include four pedestrian crossings.

#### **4.5.2.10 OMF North Site Alternatives**

##### ***OMF Site F (SR 99)***

OMF Site F would require Gibson Road between Alexander Road and SR 99 to be realigned south of the site. At the north end of the site, Center Road would be cut into two segments, no longer facilitating traffic through its intersection with Alexander Road. One employee entry point for the facility would be along SR 99 and the other would be on realigned Gibson Road.

##### ***OMF Site F with Lead Tracks to the West Side of Airport Road Design Option***

The design option would have the same non-motorized impacts as OMF Site F.

##### ***OMF Site E (Airport Road)***

OMF Site E would require that 106th Street SW would be cut off west of 20th Place, and 103rd Street would be vacated entirely. Traffic, including non-motorized traffic, would have to use either 100th Street or Holly Drive to access Airport Road from the east. One employee entry point for the facility would be on 100th Street SW at 24th Place and the other would be on Holly Drive.

##### ***OMF Site B (SR 526)***

OMF Site B would require that 80th Street SW between 16th Avenue and Hardsen Road be removed and closed as a public travel corridor. One employee entry point for the facility would be on the northwestern end of 75th Street and the other would be from 80th Street.

##### ***OMF Site B with Lead Tracks to South Side of SR 526 Design Option***

The design option would have the same non-motorized impacts as OMF Site B.

#### **4.5.3 No Build Alternative**

Planned facilities with identified construction funding were included in the analysis. Pedestrian facilities were inventoried and evaluated within a 1-mile radius of the station locations, and bicycle facilities were inventoried within a 3-mile radius. In each of the station areas, there are proposed facilities included in the No Build Alternative through regional and local agency plans. Table 4-44 outlines the regional non-motorized facilities expected to be constructed in the study area by 2046.

**Table 4-44 2046 No Build Alternative Regional Non-Motorized Facilities**

| Plan                                                           | Sponsor          | Project Title                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Estimated Year of Completion |
|----------------------------------------------------------------|------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Transportation Improvement Program (TIP)                       | Snohomish County | Alderwood Mall Parkway: SR 525 to 168th Street SW                      | Widen to five lanes with bicycle and pedestrian facilities from 168th Street to SR 525 NB ramps.                                                                                                                                                                                                                                                                                                                                                                                  | 2028                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | City Center: New Road to 42nd Avenue W                                 | Construct a new road from Alderwood Mall Boulevard to 194th Street SW to provide access to adjacent buildings, distribute traffic, and shorten blocks to facilitate pedestrian traffic. This roadway is part of an integrated package of transportation improvements needed to support the development of the City Center to the urban densities envisioned for the Urban Centers designated in the PSRC's Vision 2040. The project has received a federal grant for design work. | 2027                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | City Center Gateway: I-5/44th Avenue W Underpass Improvements          | Improve the pedestrian access and gateway of the I-5 underpass along 44th Avenue W.                                                                                                                                                                                                                                                                                                                                                                                               | 2024                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | 48th Avenue W Bike and Pedestrian Improvements                         | Project will enhance this critical pedestrian and bicycle connection between the Lynnwood Transit Center and transit service along 196th Street SW. It will also provide an improved connection between the transit center and the neighborhoods to the north. A partnership with Sound Transit is anticipated for the project.                                                                                                                                                   | 2028                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | City-Wide Sidewalk and Walkway Program                                 | Construct new asphalt shoulders, walkways, or sidewalks to those roads. Included on the City's Pedestrian Skeleton System.                                                                                                                                                                                                                                                                                                                                                        | 2028                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | Scriber Creek Trail Extension, Acquisition (aka Center to Sound Trail) | Master planning for the extension of Scriber Creek Trail northward through the city from Scriber Lake Park to Lund's Gulch, creating a north-south bicycle corridor through Lynnwood for recreation and commuter use. Missing links along the existing trail from the Transit Center to Scriber Lake Park would be completed with the trail                                                                                                                                       | 2028                         |

| Plan                                                           | Sponsor          | Project Title                                                             | Description                                                                                                                                                                                                                                                                                                                     | Estimated Year of Completion |
|----------------------------------------------------------------|------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                |                  |                                                                           | improved to a Class I bicycle/pedestrian trail. This project would provide a north-south trail corridor, a Class I bicycle/pedestrian trail, that would link parks, open space, neighborhoods, schools, businesses, and shopping in Lynnwood.                                                                                   |                              |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | City Center: New Road to 194th Street SW                                  | Construct a new road from 40th Avenue W to 33rd Avenue W to provide access to adjacent buildings, distribute traffic, and shorten blocks to facilitate pedestrian traffic.                                                                                                                                                      | 2028                         |
| TIP                                                            | Snohomish County | 35 Avenue SE / 39 Avenue SE (York Road): SR 524 to 180 Street SE Phase II | Widen corridor to three lanes to meet urban standards with bike lanes. Upgrade intersection per traffic analysis.                                                                                                                                                                                                               | 2023                         |
| TIP                                                            | Snohomish County | 36 Avenue W / 35 Avenue W Phase 1: 164 Street SW to 156 Street SW         | Widen corridor to three lanes to meet urban standard with bike lanes.                                                                                                                                                                                                                                                           | 2024                         |
| TIP                                                            | Snohomish County | 35 Avenue W Phase 2: 156 Street SW to SR 99                               | Widen corridor to three lanes to meet urban standard with bike lanes.                                                                                                                                                                                                                                                           | 2024                         |
| TIP                                                            | Snohomish County | Ash Way/Gibson Road Phase 2: Admiralty Way to 134 Street SW               | Construct intersection improvements and widen corridor to three lanes to meet urban standards with bike lanes.                                                                                                                                                                                                                  | 2028                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | 48th Avenue W Bike and Pedestrian Improvements                            | Project will enhance this critical pedestrian and bicycle connection between the Lynnwood Transit Center and transit service along 196th Street SW. It will also provide an improved connection between the transit center and the neighborhoods to the north. A partnership with Sound Transit is anticipated for the project. | 2028                         |
| Capital Facilities Plan and Transportation Improvement Program | City of Lynnwood | City Center: Expanded Road: 200th Street SW                               | Widen 200th Street SW from three lanes to 5/7 lanes with bike lanes and widen sidewalks and turning lanes at the 44th Avenue W/200th Street SW intersection.                                                                                                                                                                    | 2024                         |

| Plan          | Sponsor         | Project Title                                            | Description                                                                                                     | Estimated Year of Completion |
|---------------|-----------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------|
| TIP 2023-2028 | City of Everett | Bond Street Pedestrian/Bike Improvements                 | Bond Street pedestrian crossing between Kromer Avenue to Terminal Avenue                                        | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Smith Island Bike/Pedestrian improvements                | Road improvements for various arterials on Smith Island.                                                        | 2023-2028                    |
| TIP 2023-2028 | City of Everett | West/East Marine View Drive Bike/Pedestrian Improvements | Bicycle/pedestrian improvements on West/East Marine View Drive between Alverson Bridge to North Broadway.       | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Grand Avenue/N. Marina Pedestrian/Bike Connection        | Pedestrian/bicycle connection between Grand Avenue to W. Marine View Drive.                                     | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Lowell Snohomish River Rd. Bike/Ped Connection           | Bicycle/pedestrian connection on Lowell Snohomish River Road between Rotary Park to Everett city limits.        | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Riverfront District Bike/Pedestrian Paths                | Implementation of bicycle/pedestrian paths in various locations in Riverfront District.                         | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Interurban Trail Bike/Pedestrian Path Improvements       | Implementation of bicycle/pedestrian paths in various locations along the Interurban Trail.                     | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Bond Street Pedestrian/Bike Improvements                 | Bond Street pedestrian crossing between Kromer Avenue. to Terminal Avenue.                                      | 2023-2028                    |
| TIP 2023-2028 | City of Everett | California Street Bicycle Pedestrian Corridor            | Implementation of a bicycle pedestrian corridor on California St between W. Marine View Drive to US 2 vicinity. | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Fleming Street Bicycle Corridor                          | Implementation of a bicycle pedestrian corridor on Fleming Street between Madison Street to Mukilteo Boulevard. | 2023-2028                    |
| TIP 2023-2028 | City of Everett | Fulton Street Bicycle Pedestrian Corridor                | Implementation of a bicycle pedestrian corridor on Fulton Street between Pacific Avenue to California Street.   | 2023-2028                    |



| Plan                  | Sponsor         | Project Title                                            | Description                                                                                                                                                                                              | Estimated Year of Completion |
|-----------------------|-----------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| TIP 2023-2028         | City of Everett | Riverside Business Park Pedestrian Trail                 | Pedestrian trail at Riverside Business Park alongside Snohomish River.                                                                                                                                   | 2023-2028                    |
| TIP 2023-2028         | City of Everett | West/East Marine View Drive Bike/Pedestrian Improvements | Bicycle/pedestrian improvements on West/East Marine View Drive between Alverson Bridge to North Broadway.                                                                                                | 2023-2028                    |
| TIP 2023-2028         | City of Everett | N. Broadway Pedestrian Bridge                            | Pedestrian bridge on N. Broadway from Everett Community College connecting to Washington State University - Everett campus.                                                                              | 2023-2028                    |
| TIP 2023-2028         | City of Everett | 75th St. SW                                              | Bicycle/pedestrian corridor between Hardeson Road to Seaway Boulevard.                                                                                                                                   | 2023-2028                    |
| TIP 2023-2028         | City of Everett | 47th Street Pedestrian Improvements                      | Pedestrian improvements on 47th Street between Evergreen Way to Black Forest Lane.                                                                                                                       | 2023-2028                    |
| TIP 2023-2028         | City of Everett | Grand Ave./N. Marina Ped-Bike Connection                 | Pedestrian/bicycle connection between Grand Avenue to W. Marine View Drive.                                                                                                                              | 2023-2028                    |
| TIP 2023-2028         | City of Everett | Lowell Snohomish River Rd. Bike/Ped Connection           | Bicycle/pedestrian connection on Lowell Snohomish River Road between Rotary Park to Everett city limits.                                                                                                 | 2023-2028                    |
| TIP 2023-2028         | City of Everett | Riverfront District Bike/Ped Paths                       | Implementation of bicycle/pedestrian paths in various locations in Riverfront District.                                                                                                                  | 2023-2028                    |
| TIP 2023-2028         | City of Everett | Interurban Trail Bike/Ped Path Improvements              | Implementation of bicycle/pedestrian paths in various locations along the Interurban Trail.                                                                                                              | 2023-2028                    |
| Washington State STIP | City of Everett | Casino Road and 5th Avenue W Pedestrian Safety           | At the traffic signal, install accessible pedestrian pushbuttons, flashing yellow left-turn phasing that operates in red when a pedestrian presses the pushbutton, fiber, and cameras. Install lighting. | 2024                         |
| Washington State STIP | City of Everett | Citywide Safety Flashing Yellow Arrow Improvements       | Install flashing yellow arrow left-turn traffic signal phasing that operates in red when a pedestrian presses a pushbutton. Install traffic monitoring cameras and switches.                             | 2024                         |
| Washington State STIP | City of Everett | Everett Mall Way: 4th Avenue to East Mall Drive          | Project will improve traffic signal phasing and timing and improve conditions for pedestrians in crosswalks.                                                                                             | 2025                         |

| Plan                  | Sponsor          | Project Title                                     | Description                                                                                                                                                                                                                                                                                                                                                | Estimated Year of Completion |
|-----------------------|------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Washington State STIP | City of Everett  | Fulton Street Bicycle Pedestrian Corridor         | Improve Fulton Street from Pacific Avenue to California Street with bike-only pathways and bike-enhanced signalized crossings at the major intersections with Pacific Avenue and Hewitt Avenue. Sidewalk additions and improvements in the Fulton corridor and north of Hewitt connecting the sidewalk at Hewitt/Fulton to the California Street corridor. | 2026                         |
| Washington State STIP | Snohomish County | Alderwood Mall Parkway: 168th Street SW to SR 525 | Widen Alderwood Mall Parkway to five lanes with bicycle and pedestrian facilities from 168th Street SW to SR 525 ramps.                                                                                                                                                                                                                                    | 2026                         |

SOURCE: Snohomish County (2022); City of Lynnwood (2022); City of Everett (2022); WSDOT (2022)

## 4.6 Safety

This section describes EVLE Project improvements affecting safety and potential safety impacts (increases or decreases in collisions) for arterials, local streets, and non-motorized modes under the No Build and Build Alternatives.

### 4.6.1 Build Alternatives

#### 4.6.1.1 Impacts Common to All Build Alternatives

The safety of the transportation system is expected to be largely consistent with existing conditions because all Build Alternatives would operate in exclusive right-of-way, with no direct conflicts with vehicles, pedestrians, or bicyclists. The light rail design would adhere to both light rail and roadway standards to minimize the potential effects on traffic safety. For example, infrastructure elements of the light rail guideway, such as walls and columns, would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements.

Guideway columns for the elevated portions of the light rail guideway would be constructed in existing parking lots and along roadways at various points along the entire EVLE Project alignment. Columns adjacent to roadways would be set back from the roadway to provide adequate sight distance for vehicles turning out of connecting streets or driveways. Columns in parking lots could impede sight lines for vehicles and pedestrians circulating in parking lots compared to the No Build Alternative; however, any such columns would have curb buffers constructed for safe clearance of circulating vehicles and could be designed to maintain visibility for vehicles and pedestrians.

The station areas for all Build Alternatives would experience vehicle and non-motorized activity accessing the station, which would increase the potential for conflicts among different travel modes, specifically at intersections where local streets intersect the arterial street network. Within each station area, transfers between bus transit, paratransit, and light rail would contribute to the volume of pedestrian traffic near the station. The station would be designed to standards that minimize the potential for conflict among buses, non-motorized users, and vehicles. Specific safety considerations that would arise under a Build Alternative design that has transit and transfer facilities beyond its station plaza footprint are specified in the sections below.

If the EVLE Project were to remove or modify transportation infrastructure, these facilities would be replaced to ensure that the transportation system would operate similar to or better than the No Build Alternative. In some locations, increased traffic volumes could be expected to result in an increase in crashes.

Mode shifts from driving, or other types of vehicular travel, to using light rail would occur under this project. This would reduce the amount of VMT in the region by up to 928,200 miles, which would likely result in fewer crashes in the region because people would be driving fewer miles. Localized increases in transit movements, pedestrians, and bicyclists near each of the stations could increase the risk of traffic conflicts and conflicts among travel modes.

Traffic signals and protected turn phasing introduced by this project are anticipated to reduce the severity of crashes (fatality and serious injury) compared with two-way or all-way stop-

control intersections in No Build conditions. As a result of these measures, intersection safety would be improved with construction of the EVLE Project.

#### 4.6.1.2 West Alderwood Segment

##### *Impacts Common to All West Alderwood Segment Alternatives*

Under all West Alderwood Segment Build Alternatives, safety elements of the transportation system would be similar to existing conditions, with crash types and locations consistent with those described in the Section 3.

Some intersections along Alderwood Mall Boulevard, 33rd Avenue W, Alderwood Mall Parkway, and 184th Street SW would experience increases in traffic volumes and delay, which could result in increases in crashes in the West Alderwood Segment. It is also likely that there would be increased traffic in the Alderwood Mall parking lot and mall access roads due to traffic accessing the light rail station locations and transit vehicles that may be routed into these areas where previous routes were not. This increased traffic would increase the potential for conflicts between buses, pedestrians, bicyclists, and vehicles.

##### **Alternative ALD-1B**

Alternative ALD-1B would feature a station loop road for bus bays and paratransit that would be accessed via the existing mall access road. Driveways to access this loop road would utilize existing locations and intersections for circulation within the Alderwood Mall parking lot. This Build Alternative would require reconfiguring the intersection at 28th Avenue W and the mall access road from a three-leg intersection to a four-way intersection and adding pedestrian crossings where currently there are none. The intersection for outbound traffic at the station loop road and the mall access road would feature AWSC and pedestrian crosswalks, where there were previously no traffic control or pedestrian facilities. These changes to the roadway would add pedestrian safety infrastructure where there is currently none.

Transfer passengers between bus and light rail would not be required to cross any general-purpose traffic roadways. Two layover bus bays would be across the transit-access-only station loop road; pedestrian access to the active bus bays would not require crossing any roadway.

Passenger pickup and drop-off spaces provided in cut-outs to the north curb face of the mall access road would increase potential conflicts between buses, vehicles, and pedestrians. However, the station area footprint would remove several intersections between the mall access road and parking lot entry driveways, which would reduce potential conflicts between road users.

Alternative ALD-1B would include guideway columns running along the south side of Alderwood Mall Boulevard just east of the intersection with 44th Avenue W, along the SB I-5 on- and off-ramps at the interchange with 196th Street SW, across the intersection of Alderwood Mall Boulevard and 33rd Avenue W, then following the east side of 33rd Avenue W. The columns would then curve into the existing Alderwood Mall parking lot south of 188th Street SW into the station area. North of the station area, the columns would follow along the west side of Beech Road before crossing over the west side of the I-5/I-405 interchange.

All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### **Alternative ALD-1B with Alderwood Mall Boulevard Design Option**

Compared to Alternative ALD-1B, Alternative ALD-1B with Alderwood Mall Boulevard Design Option would feature similar guideway column placement along Alderwood Mall Boulevard near 44th Avenue W but would then curve to the north side of Alderwood Mall Boulevard in the vicinity of the 196th Street SW/I-5 interchange. The columns would then span over the Alderwood Mall Boulevard/33rd Avenue W intersection and continue along the east side of 33rd Avenue W. The placement of the remaining guideway columns would be the same as for Alternative ALD-1B.

### **Alternative ALD-2D**

Alternative ALD-2D would feature a bus loop for off-street layover bus bays accessed via a new signalized intersection on 33rd Avenue W approximately 600 feet north of the 33rd Avenue W/188th Street SW intersection. This new signalized intersection would provide increased potential for conflicts where previously there was no driveway. On 33rd Avenue W between this new signalized intersection and the 33rd Avenue W/188th Street SW intersection, a crosswalk would also be constructed that would improve safety for pedestrians accessing the station area from businesses west of the station and vice versa. This crosswalk would also provide additional conflict points between vehicles and pedestrians, as there is no existing crossing at this location.

On-street active bus bays would be provided and maintained in the right lanes of NB and SB 33rd Avenue W. Transfer passengers using the bus bays on NB 33rd Avenue W would not be required to cross any roadways. Passengers transferring with buses with bus bays on SB 33rd Avenue W would need to cross 33rd Avenue W either at the new crosswalk or at the existing signalized intersection with 188th Street SW. Passengers accessing the existing SB Swift bus station on 33rd Avenue would require crossing 33rd Avenue and 188th Street SW. Anticipated increases in transfer passenger volume would increase the potential for conflict at these pedestrian crossings. Another crosswalk would also be added at the intersection of the mall access road and 188th Street SW. This crosswalk would provide a safe location for crossing where one previously did not exist, while also providing increased potential for conflict between pedestrians and vehicles.

Passenger pickup and drop-off spaces provided in cut-outs to the west curb face of the mall access road would increase potential conflicts between buses, vehicles, and pedestrians. However, the station area footprint would remove several intersections between the mall access road and parking lot entry driveways, which would reduce potential conflict between road users.

Alternative ALD-2D would feature guideway columns running along the south side of Alderwood Mall Boulevard just east of the intersection with 44th Avenue W, along the SB I-5 on- and off-ramps at the interchange with 196th Street SW, across the intersection of Alderwood Mall Boulevard and 33rd Avenue W, then following the east side of 33rd Avenue W. The columns would then curve into the existing Alderwood Mall parking lot south of 184th Street SW into the station area. North of the station area, the columns would follow along the south side of 184th Street SW before following the west side of I-5 to cross over the I-5/I-405 interchange.

All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.



### ***Alternative ALD-2D with Alderwood Mall Boulevard Design Option***

Compared to Alternative ALD-2D, Alternative ALD-2D with Alderwood Mall Boulevard Design Option would feature similar guideway column placement along Alderwood Mall Boulevard near 44th Avenue W but would then curve to the north side of Alderwood Mall Boulevard in the vicinity of the 196th Street SW/I-5 interchange. The columns would then span over the Alderwood Mall Boulevard/33rd Avenue W intersection and continue along the east side of 33rd Avenue W. The placement of the remaining guideway columns would be the same as for Alternative ALD-2D.

### ***Alternative ALD-2F***

Alternative ALD-2F would provide bus transfer access via on-street active bus bays on both EB and WB right lanes of 184th Street SW. Transfer passengers using the bus bays on EB 184th Street SW would not be required to cross any roadways. Transfer passengers using the bus bay on WB 184th Street SW would need to cross 184th Street SW at the signalized intersection with the mall access roads for Alderwood Mall and The Woods at Alderwood. Since transfer activity is expected to increase, there would be increased potential for pedestrian and vehicle conflict at this intersection.

The extension of the mall access road to connect with the existing signalized intersection between 184th Street SW and 33rd Avenue W north of 184th Street SW would increase potential conflicts between vehicles due to the reconfiguration of a three-way intersection into a four-way intersection. This extension road would also feature layover bus bays on both curb faces. These changes to the mall access road would increase the potential for conflicts between buses, pedestrians, and vehicles.

Passenger pickup and drop-off spaces provided in cut-outs to the north curb face of the mall access road would increase potential conflicts between buses, vehicles, and pedestrians. However, the station area footprint would remove several intersections between the mall access road and parking lot entry driveways, which would reduce potential conflict between road users.

The guideway column placement for Alternative ALD-2F exhibits no differences to those described for Alternative ALD-2D. The safety considerations of the columns would be the same in both cases.

### ***Alternative ALD-2F with Alderwood Mall Boulevard Design Option***

The guideway column placement and safety considerations for Alternative ALD-2F with Alderwood Mall Boulevard Design Option would be the same as described for Alternative ALD-2D with Alderwood Mall Boulevard Design Option.

#### **4.6.1.3 Ash Way Segment**

##### ***Impacts Common to All Ash Way Segment Alternatives***

Both Ash Way Segment Build Alternatives would be expected to increase vehicle and non-motorized activity along 164th Street SW due to station access. There may also be changes to the use of transit access lanes in the I-5 median that would have safety implications for vehicle traffic on I-5 due to potential bus scheduling changes alongside station opening. However, these lanes are separated from local vehicle traffic and all non-motorized road users.

**Alternative ASH-1A**

Station ASH-A would include a transit plaza that offers transfer access to all bus bays either without the need to cross a roadway or with crossing a transit-access-only station loop road using a crosswalk. All access to paratransit and passenger pickup and drop-off spaces would be possible without crossing any roadways.

Alternative ASH-1A would also increase vehicle, transit, and non-motorized volumes along Ash Way.

The guideway columns under this Build Alternative would run along the west side of I-5, with the greatest number of columns by a roadway in the vicinity of the 164th Street SW/I-5 interchange, along the SB I-5 on- and off ramps. There would also be a small number of columns by the south end of 4th Avenue W/east end of 134th Street SW. These guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

**Alternative ASH-2D**

Station ASH-D would include a transit plaza that offers transfer access to all bus bays either without the need to cross a roadway or with crossing a transit-access-only station loop road using a crosswalk. All access to paratransit and passenger pickup and drop-off spaces would be possible without crossing any roadways, though pedestrians may elect to use crosswalks through the transit-access-only roadway for a more direct path to pickup and drop-off spaces.

The current alignment of Motor Place would be reconfigured such that Motor Place would be curved towards the existing signalized intersection with 14th Place W. The existing Motor Place intersection with 164th Street SW would remain as a right-in/right-out access point only. This reconstructed Motor Place/14th Place W would include sidewalks on both sides, a two-way left-turn lane, and two crosswalks for pedestrians to access the east side of the roadway. This redesigned roadway would experience increased vehicle and non-motorized volumes due to station access activity.

At the south end of this segment, Alternative ASH-2D would have guideway columns on either side of Maple Road on the west side of I-5. Some columns would also be located on the east side of Alder Way north of the intersection with 21st Avenue W. The guideway would continue north along the west side of I-5 before crossing over to the east side near the SB I-5 on-ramp from 164th Street SW. Columns would be placed running north along 19th Avenue W before crossing to the east side of the 164th Street SW/I-5 interchange. A series of six columns would be placed between the east side of I-5 and the west side of the Interurban Trail near 12th Avenue W. The alignment would then continue along the rear of a private parking lot near 9th Place W and by 4th Avenue W at the north end of this segment.

All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

#### 4.6.1.4 Mariner Segment

##### ***Impacts Common to All Mariner Segment Alternatives***

The Mariner Segment is expected to experience increased vehicle and non-motorized activity along 128th Street SW, 130th Street SW, 4th Avenue W, and 8th Avenue W. This would increase the potential for conflicts along these roads between buses, pedestrians, and vehicles. The completion of Snohomish County's planned 130th Street bridge extension project over I-5 would create different traffic patterns and safety implications that are not currently observed in the Mariner Segment, though this project is part of the No Build Alternative and would be integrated into the station layouts for the Build Alternatives in the Mariner Segment.

##### ***Alternative MAR-1B***

Station MAR-B would include a transit plaza that offers transfer access to several bus bays either without the need to cross a roadway or with crossing a transit-access-only station loop road using a crosswalk. On-street active bus bays would remain in operation on both the EB and WB right lanes of 128th Street SW. Transfer passengers accessing the WB bus bays would not be required to cross a roadway. Transfer passengers accessing the EB bus bays would be required to cross 128th Street SW at a signalized intersection. Alternative MAR-1B would include a parking structure across the new 130th Street from the station. Passengers accessing the station from the parking structure would be required to cross 130th Street at an unsignalized crossing. Expected increases in transfer passenger volumes, particularly in the initial phase condition, would increase potential conflicts between pedestrians and vehicles at the 128th Street SW/5th Place W intersection.

All access to paratransit and passenger pickup and drop-off spaces would be possible without crossing any roadways, though pedestrians may elect to use crosswalks through the passenger pickup and drop-off loop road for a more direct path to pickup and drop-off spaces.

Alternative MAR-1B would also feature guideway columns by a roadway along almost its entire length. Columns would begin on the east side of 4th Avenue W before curving around to run along the south side of 128th Street SW. The columns then follow along this roadway as it curves and becomes Airport Road. If combined with Alternative AIR-1A the columns would switch over to the north side of Airport Road, though they would remain on the south side of Airport Road if combined with Alternative AIR-2B.

All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

Alternative MAR-1B would include new medians on 128th Street SW at its intersection with 8th Avenue, improving safety for the crosswalk and providing additional vehicle separation.

##### ***Alternative MAR-1B with Surface Parking Design Option***

Alternative MAR-1B with Surface Parking Design Option would have the same safety conditions as Alternative MAR-1B.

### ***Alternative MAR-2D***

Station MAR-D would include a transit plaza that offers transfer access to several bus bays either without the need to cross a roadway or with crossing a transit-access-only station loop road using a crosswalk. On-street active bus bays would be constructed on both the EB and WB right lanes of the planned 130th Street SW. Transfer passengers accessing the WB bus bays would not be required to cross a roadway. Transfer passengers accessing the EB bus bays would be required to cross 130th Street SW at a crosswalk. Alternative MAR-2D would include a parking structure at the corner of 4th Avenue and the new 130th Street. Passengers accessing the station from the parking structure would have to cross 4th Avenue at the existing signalized intersection at the Mariner Park-and-Ride entrance. Expected increases in transfer passenger volumes, particularly in the initial phase condition, would increase potential conflicts between pedestrians and vehicles at this station location.

All access to paratransit would be possible without crossing any roadways. Passenger pickup and drop-off is also possible without crossing any roadways, though some spaces are accessed by crossing the passenger pickup and drop-off loop road via a crosswalk.

Alternative MAR-2D would also include guideway columns by the roadway along almost its entire length. Columns would begin on the east side of 4th Avenue W before curving around to run along the north side of 128th Street SW. The columns would then follow along this roadway as it curves and becomes Airport Road. If combined with Alternative AIR-2B, the columns would switch over to the south side of Airport Road, though they would remain on the south side of Airport Road if combined with Alternative AIR-1A.

All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### ***Alternative MAR-2D with Surface Parking Design Option***

Alternative MAR-2D with Surface Parking Design Option would include two surface parking lots, one at the corner of 4th Avenue and 132nd Street SW, which could be accessed from the station without crossing a major roadway, and a lot across 132nd Street SW from the station, which would require passengers to cross 132nd Street SW at a new unsignalized crossing.

#### **4.6.1.5 SR 99/Airport Road Segment**

##### ***Impacts Common to All SR 99/Airport Road Segment Alternatives***

Under both SR 99/Airport Road Segment Build Alternatives, there would be increased vehicle and non-motorized activity along SR 99, Airport Road, and Center Road. There would be raised medians constructed along all four approaches to the intersection of SR 99 and Airport Road, which would provide restrictions on vehicle movements, thereby reducing the potential for conflict between vehicles along these two roadways.

### ***Alternative AIR-1A***

Alternative AIR-1A would include a new station access road that connects Center Road between SR 99 and Airport Road as well as a station loop road. Pedestrian access to paratransit and pickup and drop-off spaces would be available without requiring the crossing of

any roadways, though more direct access to passenger pickup and drop-off would be via a crosswalk in this station loop.

Six out of eight bus bays at Station AIR-A would require pedestrian access across a roadway. Two bus bays, including the relocated SB Swift bus station on SB Airport Road, would require crossing Airport Road at the signalized intersection with Center Road. The SB Swift bus station on Airport Road would be relocated to the north side of SR 99, but a local bus bay would still require crossing both Airport Road and SR 99 to access it. Two bus bays on NB SR 99 would require crossing SR 99 at the signalized intersection with Airport Road, in addition to a right-turn slip lane from SB SR 99 onto NB Airport Road. The existing SB Swift bus station on SR 99 would require crossing Airport Road to access the station. The expected increase in pedestrian transfer volumes would increase the potential for conflict between pedestrians and vehicles at these two intersections.

New traffic signals would be installed at the SR 99/Center Road and Airport Road/Center Road intersections. These signals would offer safer pedestrian crossings and vehicular turning movements, while also increasing conflict potential between buses, pedestrians, and vehicles.

The traffic and pedestrian island at the north corner of the SR 99/Airport Road intersection would have two guideway columns constructed on it. One of these columns may obstruct the view of crossing pedestrians at the crosswalk for drivers in the right-turn slip lane from SB SR 99 to NB Airport Road. The line-of-sight obstruction would be mitigated by an enlargement of the existing pedestrian island that would provide a greater area of visibility than under current conditions. In general, the guideway columns constructed in this segment would run along the north side of Airport Road. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### **Alternative AIR-1B**

Alternative AIR-1B would include a new station access road connecting Center Road west of Airport Road to SR 99 south of Airport Road. A new traffic signal would be installed at the intersection of Airport Road and Center Road. This signal would facilitate safer pedestrian crossings and vehicular turning movements, while also increasing conflict potential between buses, pedestrians, and vehicles. Pedestrian access to paratransit would be available along the station access road without requiring the crossing of any roadways, and passenger pickup and drop-off access would be via a crosswalk across this station access road.

Five out of 10 bus bays at Station AIR-B would require pedestrian access across a roadway. Two bus bays on NB Airport Road would require crossing Airport Road at the signalized intersection with Center Road. Two bus bays on NB SR 99 would require crossing both SR 99 and Airport Road. The SB Swift bus station on Airport Road would be relocated to the north side of the SR 99 and Airport Road intersection. One bus bay on SB Airport Road would require crossing SR 99 at its intersection with Airport Road, in addition to crossing the right-turn slip lane from NB SR 99 to SB Airport Road. The expected increase in pedestrian transfer volumes would increase potential for conflict between pedestrians and vehicles at these two intersections.

The traffic and pedestrian island at the south corner of the SR 99/Airport Road intersection would have two guideway columns constructed on it. One of these columns may obstruct the view of crossing pedestrians at the crosswalk for drivers in the right-turn slip lane from NB SR



99 to SB Airport Road. The line-of-sight obstruction would be mitigated by an enlargement of the existing pedestrian island that would provide a greater area of visibility than under current conditions. In general, the guideway columns constructed in this segment would run along the south side of Airport Road. At the intersection of Airport Road and 112th Street SW, the guideway columns would shift to the north side of Airport Road for the remainder of this segment. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

#### **4.6.1.6 SW Everett Industrial Center Segment**

##### ***Impacts Common to All SW Everett Industrial Center Segment Alternatives***

Under all SW Everett Industrial Center Segment Build Alternatives, there would be increased vehicle and non-motorized activity along Airport Road, Kasch Park Road, and Casino Road. Guideway columns for the elevated guideway would be set back sufficiently from all roadways to provide adequate visibility and clearance.

The guideway column locations would be common to all Build Alternatives in this segment. The columns would run along the east side of Airport Road until Casino Road, at which point the guideway curves to the east to follow the south side of SR 526. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

##### ***Alternative SWI-1A***

Alternative SWI-1A would include a station loop road with access via two driveways on Casino Road. One intersection would be controlled with a new traffic signal, and the other intersection would be controlled with a stop sign on the station loop road.

Transfer passengers accessing bus bays in the station loop road would either not require any roadway crossings or would only require crossing the internal loop road at designated crosswalks. Two on-street active bus bays would be located on the EB right lane of Casino Road; transfer passengers for these bus bays would be required to cross Casino Road at the new signalized intersection. Shuttle and passenger pickup and drop-off spaces would also be located in the station transit plaza, and access to the station platform would require crossing two designated crosswalks in the station loop.

##### ***Alternative SWI-1A with Lower Design Option***

The station area transfer activity, vehicle access, and safety conditions for Alternative SWI-1A with Lower Design Option would be the same as for Alternative SWI-1A.

##### ***Alternative SWI-1B***

Alternative SWI-1B would provide transfer passenger access to bus bays, paratransit, and shuttles in a station loop road. Transfer passengers for five out of 13 bus bays would require no roadway crossings; another four bus bays require crossing at a designated crosswalk across the station loop road. Two bus bays would require access across both Kasch Park Road and Airport Road at an existing signalized intersection. One bus bay would require access across Casino Road at a new signalized intersection with the station access road. The bus bays

requiring roadway crossings would increase potential conflicts between buses, pedestrians, and vehicles in the station area.

A passenger pickup and drop-off area would also be accessed via a driveway on the north side of the new signalized intersection on Casino Road. Access between the station platform and passenger pickup and drop-off would also require crossing Casino Road at this signalized intersection. This signal would offer safer pedestrian crossings and vehicular turning movements, while also increasing conflict potential between buses, pedestrians, and vehicles.

### ***Alternative SWI-1C***

Alternative SWI-1C would provide transfer passenger access to bus bays and shuttles along a transit-only road and access to paratransit in a pick-up-drop-off loop. Transfer passengers for four bus bays and paratransit would require no roadway crossings; another three bus bays require crossing at a designated crosswalk across the station loop road. Passengers transferring to or from the SB Swift Green Line station would have to cross Airport Road at the designated crosswalk at 100th Street SW.

#### **4.6.1.7 SR 526/Evergreen Segment**

##### ***Impacts Common to All SR 526/Evergreen Segment Alternatives***

Increases in vehicle and non-motorized volumes would be expected along Evergreen Way and Casino Road as users access the station. Improvements would also be made to the segment of the Interurban Trail running from E Casino Road, past Xavier Way, and ending near Balley Avenue. Minor realignment of the trail would remove a shared segment of the trail with roadway along Pinkerton Avenue. Instead, the new trail alignment would cross a maintenance driveway for guideway access that would be closed to general-purpose traffic. These changes to the Interurban Trail would reduce the potential for conflict between non-motorized and general-purpose vehicular traffic.

### ***Alternative EGN-1A***

Under Alternative EGN-1A, an increase in vehicular traffic due to station access is expected along 79th Place SE and Beverly Lane, as these streets offer a route for vehicles on NB Evergreen Way to access the station access road. The station access road would permit right-turn only entry and exit to and from SB Evergreen Way, with a second access from Beverly Lane. Roadway and sidewalk improvements would be made to Beverly Lane to improve pedestrian access to the station area. While pedestrian and vehicle volumes are expected to increase on Beverly Lane, sidewalk improvements would also reduce the potential for conflict between different modes of road users.

Alternative EGN-1A would improve the raised median along Evergreen Way north of the interchange with SR 526. This raised median would provide restrictions on vehicle movements, thereby reducing the potential for conflict between vehicles along these two roadways.

Alternative EGN-1A would relocate the existing pedestrian bridge over SR 526 west of Evergreen Way. This new bridge would be wider than the existing bridge. On the north end, the bridge would integrate into the transit plaza design, and on the south end, the bridge would connect onto a sidewalk that would be constructed as part of the project. Compared to the existing design, which has the south end of the bridge feed into a parking lot, this new design would reduce the potential for conflict between pedestrians, bicyclists, and vehicles by providing increased separation among modes.

The station access road would provide access to paratransit without a need for transfer passengers to cross a roadway. Passengers accessing the pickup and drop-off spaces would be required to cross a designated crosswalk within the station loop. On-street bus bays for this station would be located on the NB and SB right lanes of Evergreen Way. Accessing the SB bus bay would require transfer passengers to use crosswalks at the entry and exit driveways on Evergreen Way for the station access. Transfer passengers for the NB bus bays would be required to cross Evergreen Way using one of two routes: at the signalized intersection with SR 526 on/off ramps, or by crossing the station access road driveways then crossing Evergreen Way at a crosswalk with a median pedestrian island. Both options would then require transfer passengers to cross a business parking lot driveway using a designated crosswalk. Given the need for all transfer passengers between light rail and bus to cross roadways, particularly crossing a state highway for accessing NB bus bays, there would be an increase in potential for conflict between buses, pedestrians, and vehicles.

Under this Build Alternative, the guideway columns would cross over from W Casino Road over SR 526 and run along the north side of SR 526 past Hardeson Road. Columns would also be constructed along the north side of SR 526 near E Casino Road and by Pinkerton Avenue. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### **Alternative EGN-2B**

Alternative EGN-2B would relocate the existing pedestrian bridge over SR 526 west of Evergreen Way. This new bridge would be wider than the existing bridge. The south end of the bridge would integrate into the transit plaza design, and the north end of the bridge would connect onto a sidewalk that would be constructed as part of the project. Compared to the existing design, which has the south end of the bridge feed into a parking lot, this new design would reduce the potential for conflict between pedestrians, bicyclists, and vehicles by providing increased separation among modes.

Alternative EGN-2B would improve the raised median along Evergreen Way between the interchange with SR 526 and Casino Road. This raised median would provide restrictions on vehicle movements, thereby reducing the potential for conflict between vehicles along these two roadways.

A guideway column on the southeast corner of the intersection between the NB Evergreen Way and EB SR 526 on-ramp may impede visibility of pedestrians crossing from that corner of the intersection across the SR 526 on-ramp moving north.

The station loop road in Alternative EGN-2B would provide access to paratransit without a need for transfer passengers to cross a roadway. Passengers accessing the pickup and drop-off spaces would be required to cross one-way vehicular traffic in the station loop at a designated crosswalk.

Access to on-street bus bays on the WB right lane of Casino Road would not require transfer passengers to cross a roadway, though a more direct route would be possible by crossing the one-way station loop road twice at two designated crosswalks. The on-street bus bays on the EB right lane of Casino Road would require transfer passengers to cross Casino Road at the existing signalized intersection with the existing business access road/new station loop road. Access to the on-street bus bay on SB Evergreen Way would require transfer passengers to

cross Casino Road at a signalized intersection with Evergreen Way, and a slip lane for right turns from EB Casino Road to SB Evergreen Way. Access to the on-street bus bay on NB Evergreen Way would require transfer passengers to cross both Casino Road and Evergreen Way at the Casino Road/Evergreen Way intersection. Due to the presence of these on-street bus bays requiring pedestrian crossings at signalized intersections, it is expected that this Build Alternative would increase the potential for conflicts between buses, pedestrians, and vehicles.

Under Alternative EGN-2B, guideway columns would be placed on either side of W Casino Road at the west end of this segment. The remaining columns for this segment would begin on the south side of SR 526 near 5th Avenue W, then following SR 526 before crossing over both Evergreen Way and to the north side of SR 526 at E Casino Road. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### ***Alternative EGN-2B with North Side of SR 526 Design Option***

Under Alternative EGN-2B with North Side of SR 526 Design Option, after two sets of columns are placed on either side of W Casino Road on the west end of the segment, the guideway columns would then cross over from W Casino Road over SR 526 and run along the north side of SR 526 before crossing back over to the south side of SR 526 past Hardeson Road. The remainder of the columns would be placed as described for Alternative EGN-2B. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### ***Alternative EGN-3E***

Under Alternative EGN-3E, an increase in vehicular traffic due to station access is expected along Holly Drive/84th Street SE and 7th Avenue SE, as these streets offer a route for vehicles to access the station loop road and passenger pickup and drop-off zones on Holly Drive. Transfer passengers for these zones may access them from the station by crossing designated crosswalks in the station loop road. Access to the station transit plaza would also be provided via Holly Drive, so an increase in pedestrian and bicycle volumes would also be experienced along this street. To provide safe crossings across Holly Drive, two crosswalks would be provided at the intersection of Holly Drive and the station loop road.

This Build Alternative would construct a raised median and traffic islands along Casino Road between Evergreen Way and the intersection with the station loop road. This raised median would provide restrictions on vehicle movements, thereby reducing the potential for conflict between vehicles along these two roadways. There would also be a crosswalk installed for pedestrians to cross Casino Road north of the station. Along this section of Casino Road, there would be access to passenger pickup and drop-off spaces accessible without crossing a road, or by crossing the new crosswalk across Casino Road.

Two on-street bus bays would also be provided on Casino Road, with one accessible from the station without crossing a roadway and the other requiring use of the new Casino Road crosswalk. Two other on-street bus bays in the NB right lane of Evergreen Way would only require crossing driveways for station area maintenance access. Two more on-street bus bays in the SB right lane of Evergreen Way would require transfer passengers to cross Evergreen Way at the signalized intersection with Casino Road, then the right-turn slip lane for EB Casino

Road onto SB Evergreen Way. There would be an increase in pedestrian transfer volumes under this Build Alternative, resulting in increased potential for conflicts between buses, pedestrians, and vehicles.

A guideway column on the southwest corner of the Evergreen Way/Casino Road intersection may impede visibility of pedestrians crossing the slip lane at that intersection while moving north on Evergreen Way. Guideway columns on the east side of Evergreen Way, and east and west sides of Holly Drive would be set back from the roadway to provide adequate sight distance for vehicles turning out of connecting streets and driveways.

Under Alternative EGN-3E, guideway columns would be placed on either side of W Casino Road at the west end of this segment. The remaining columns for this segment would begin on the south side of SR 526 near 5th Avenue W and curve south to run along the south side of E Casino Road on either side of its intersection with Evergreen Way. Past the station platform the columns would continue along the south side of 84th Street SE before crossing over SR 526 and following along Pinkerton Avenue. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

#### ***Alternative EGN-3E with North Side of SR 526 Design Option***

Under Alternative EGN-3E with North Side of SR 526 Design Option, after two sets of columns are placed on either side of W Casino Road on the west end of the segment, the guideway columns would then cross over from W Casino Road over SR 526 and run along the north side of SR 526 before crossing back over to the south side of SR 526 past Hardeson Road. The remainder of the columns would be placed as described for Alternative EGN-3E. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

#### **4.6.1.8 Broadway/I-5 Segment**

##### ***Alternative BI-1***

Alternative BI-1 would have a guideway that is either elevated or at-grade west of SB I-5. The 75th Street SE bridge over I-5 would have its elevated section extended on the west side to accommodate the at-grade guideway running beneath it. This bridge extension would remove the intersection of 75th Street SE and McDougall Avenue, which would remove potential for conflicts and improve traffic safety along this I-5 crossing. A sidewalk would also be constructed along the west side of Broadway from Beverly Boulevard to north of 52nd Street SE, improving pedestrian safety on a roadway that currently has no pedestrian facilities.

The guideway columns for this Build Alternative would cross over the intersection of Broadway, Beverly Boulevard, and Puget Drive. Columns would also pass over the intersection of Broadway and Lowell Road, then continue north and run along the west side of Broadway. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.



### **Alternative BI-2**

Alternative BI-2 would cross under Beverly Boulevard then continue at-grade along the west side of Broadway and become elevated near 73rd Street. The construction of the at-grade guideway between Beverly Boulevard and 73rd Street would require the removal of five driveways that provide access between Broadway and adjoining local streets (Mountain View Lane, 20th Avenue SE, 78th Place SE, a local access road for properties at 7510 Broadway, and 73rd Street SE). The removal of these driveways would remove potential conflicts and improve traffic safety along this section of Broadway. Curb cuts for pedestrians would be constructed on all four corners of the intersection of Broadway and 52nd Street SE, as well as a sidewalk north of this intersection along the west side of Broadway for approximately 700 feet. These improvements to pedestrian facilities would improve pedestrian safety along the north end of the Broadway/I-5 Segment.

Guideway columns would also be placed along the west side of Broadway for almost its entire length in this segment. The only portion of Broadway without columns would be between the properties at 7510 Broadway and 73rd Street SE. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

#### **4.6.1.9 Everett Station Segment**

##### ***Impacts Common to All Everett Station Segment Alternatives***

Under all Everett Station Segment Build Alternatives, there would be increases in vehicle and non-motorized traffic volumes along McDougall Avenue, Pacific Avenue, Broadway, Smith Avenue, Hewitt Avenue, 32nd Street, and 33rd Street. This would increase the potential for conflicts along these roads between buses, pedestrians, and vehicles. Guideway columns along Broadway south of the I-5 and Broadway/41st Street interchange would be set back to provide adequate sight distance for vehicles turning out of connecting streets or driveways. Likewise, columns for the guideway as it runs along or near McDougall Avenue, Smith Avenue, Paine Avenue, and Broadway in downtown Everett would also be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. Since this would add new objects to the roadway system, the potential for more crashes in this part of the Everett Station Segment would increase.

All Build Alternatives in this segment would include guideway columns constructed along the west side of Broadway south of Evergreen Cemetery, before shifting to the east side at the cemetery. Columns would carry the guideway over the west side of the Broadway/41st Street/I-5 interchange, before the Build Alternatives diverge at the south end of McDougall Avenue. All guideway columns under all Build Alternatives in this segment would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

### **Alternative EVT-1A**

Alternative EVT-1A would include a station access road for paratransit and bus bay access without the need to cross a roadway for transferring passengers. This roadway would also have a mid-block designated crosswalk for pedestrians choosing to cross. Bus bays would also be located on McDougall Avenue, Smith Avenue, 32nd Street, and 33rd Street that would not

require transfer passengers to cross a roadway. Transfer passengers for one bus bay on the east side of Smith Avenue and for the regional bus and train connections at the existing Everett Station would be required to cross Smith Avenue at either the signalized intersections of Smith Avenue with 32nd Street or 33rd Street, or the designated crosswalk at the intersection of Smith Avenue and the new station access road. It is likely that there would be a high transfer volume of passengers between the light rail, buses, and regional rail, so there would be an increase in the potential for conflicts between buses, pedestrians, and vehicles on Smith Avenue.

Beyond the guideway column locations common to all Build Alternatives in this segment, Alternative EVT-1A would have columns running diagonally from McDougall Avenue to the corner of Paine Ave/37th Street, over Smith Avenue at 36th Street, then curving back over Smith Ave from the east to pass over to the west side, and crossing over 33rd Street, Paine Avenue, 32nd Street, and McDougall Avenue.

### **Alternative EVT-2C**

Alternative EVT-2C would include a station access road running north-south from 33rd Street to Pacific Avenue, in the mid-block between Broadway and McDougall Avenue. This station access road would provide access to passenger pickup and drop-off spaces as well as paratransit access for passengers without requiring a roadway crossing. There would also be several bus bays on both 32nd Street and McDougall Avenue that transfer passengers would have access to without crossing a roadway. All other station area transfer activity would only require crossing one roadway, with new crosswalks placed at all intersections along 32nd Street and along the station access road in the station area providing safe crossings. In addition to the new crosswalks, the road crossings for transfer activity between all modes would be facilitated by new traffic signals installed at the intersection of Pacific Avenue and McDougall Avenue. There would also be anticipated transfer passengers with regional rail accessed via 32nd Street. The increased transfer volume between passengers of all modes would likely increase the potential for conflicts between buses, pedestrians, and vehicles on McDougall Avenue and its intersections with 33rd Street, 32nd Street, and Pacific Avenue.

Beyond the guideway column locations common to all Build Alternatives in this segment, Alternative EVT-2C would have columns running along the west side of McDougall Avenue from 39th Street to the mid-block between Pacific Avenue and Wall Street.

### **Alternative EVT-3D**

Alternative EVT-3D would include two station access roads with bus bays and pick-up/drop-off areas. A small number of passenger pickup and drop-off spaces would be provided at a curb cut on the WB lanes of Pacific Avenue that would not require transferring passengers to cross a roadway. However, the remaining passenger pickup and drop-off spaces along the station access road extension of McDougall Avenue would require pedestrians to cross the main station access road at a designated crosswalk. There would be bus bays on either side of the main station access road, some of which would be accessible without a crossing, but others would require a crosswalk for access. There would also be paratransit access along NB Broadway that would not require a roadway crossing. Passengers transferring from light rail at Station EVT-D to regional rail at the existing Everett Station would be required to cross the intersection of Pacific Avenue and McDougall Avenue at a designated crosswalk. There would likely be increased transfer volumes between light rail, buses, and regional rail, with an accompanying increase in potential for conflicts between buses, pedestrians, and vehicles along Wall Street, McDougall Avenue, Pacific Avenue, and the new north-south station access road.

Beyond the guideway column locations common to all Build Alternatives in this segment, Alternative EVT-3D would have columns running along the west side of McDougall Avenue from 39th Street to 34th Street. The columns would then shift over the intersection of 33rd Street and the north-south alleyway between McDougall Avenue and Broadway before running north along the east side of Broadway until reaching the BNSF railroad tracks just north of Hewitt Avenue.

#### **4.6.1.10 OMF North Site Alternatives**

##### ***OMF Site F (SR 99)***

OMF Site F would have roadway vehicle access at two points: one driveway would be directly accessed via the west side of SR 99 approximately 500 feet south of the intersection with Airport Road, and the other would be accessed via a business access road off the west side of SR 99 approximately 500 feet south of the intersection with Gibson Road. Both are in the location of existing driveways so they would not introduce additional conflict points between pedestrians and vehicles. The acquisition of several parcels along SR 99 and on the east side of Alexander Road for the OMF site would reduce the number of potential conflicts between buses, pedestrians, and vehicles on these roads, as the site would remove all other existing driveways. The closure and realignment of Gibson Road between SR 99 and Alexander Road would require the construction of two additional intersections: one on SR 99 and one on Alexander Road, both south of the existing intersections with Gibson Road. Both intersections would be stop-controlled from the realigned Gibson Road. On the north end of OMF Site F, Center Road west of Airport Road would be shortened by removing the connection to Alexander Road and constructing a cul-de-sac street end. Access from Airport Road to Alexander Road would be maintained by extending Alexander Road north beyond the current intersection with Center Road to form a new signalized three-way intersection with Airport Road approximately 500 feet north of the Airport Road/Center Road intersection. These changes to road configurations would introduce three new intersections, increasing the potential for conflicts between buses, pedestrians, and vehicles on SR 99, Airport Road, Gibson Road, Alexander Road, and Center Road. The potential for conflict at the Airport Road/Center Road intersection would be reduced, as traffic volumes entering and exiting Center Road would be reduced due to the closure of the road to through-traffic.

To connect to Alternative AIR-1A, the lead tracks would cross over from the east to the west side of Airport Road at approximately 600 feet northwest of the intersection with Center Road. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

##### ***OMF F with Lead Tracks to West Side of Airport Road Design Option***

OMF Site F with Lead Tracks to West Side of Airport Road Design Option would have the same impacts to safety conditions within the site boundary as OMF Site F. Outside of the site boundary, guideway columns for the lead tracks would connect to Alternative AIR-2B. Additional columns would be located on either side of SR 99 approximately 700 feet southwest of the SR 99/Airport Road intersection. Columns would also be constructed approximately 700 feet northwest of the SR 99/Airport Road intersection for the lead tracks to rejoin the mainline guideway on the west side of Airport Road. All guideway columns would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

**OMF Site E (Airport Road)**

OMF Site E would have roadway vehicle access at two points: one driveway on the north side of Holly Drive approximately 400 feet east of the intersection with Airport Road, and the other on the south side of 100th Street. The southern access on Holly Drive would not introduce additional conflict points as it would replace two existing private business driveways. The northern access on 100th Street SW would form a four-way intersection with 24th Place W. Potentially recirculated traffic due to the closure of access to 103rd Street SW and 106th Street SW from Airport Road may also increase local traffic volumes on 21st Avenue W, 23rd Avenue W, and Rosewood Avenue. This reconfiguration of an existing intersection and closure of through-access for local streets would increase the potential for conflicts between buses, pedestrians, and vehicles on affected roadways.

Guideway columns for the lead tracks to OMF Site E would be located in similar locations as the columns for the SW Everett Industrial Center Segment Build Alternatives, and the safety considerations would be similar to those described in Section 4.6.1.6.

**OMF Site B (SR 526)**

OMF Site B would include roadway vehicle access at two points: one driveway on the south side of 75th Street SW approximately 1,000 feet west of the intersection with Hardsen Road, and the other on the west end of 80th Street SW approximately 1,500 feet west of the intersection with Hardsen Road. OMF Site B would require closing through-access along 80th Street SW west of the site. Neither driveway would introduce an additional conflict between pedestrians and vehicles as one would be an improvement of an existing driveway on 75th Street SW and the other would be a reconfiguration of 80th Street SW into a closed street-end. The acquisition of several parcels along 75th Street SW, 80th Street SW, and the east side of Alexander Road would reduce the number of potential conflicts between buses, pedestrians, and vehicles on these roads, as the site would remove the existing driveways on those parcels.

Guideway columns for the lead tracks to OMF Site B would be on the north side of SR 526 with adequate clearance from the roadway. No intersections exist in this area that would alter existing safety considerations.

**OMF B with Lead Tracks to South Side of SR 526 Design Option**

OMF Site B with Lead Tracks to South Side of SR 526 Design Option would have the same impacts to safety conditions within the site boundary as OMF Site B. Beyond the site boundary, guideway columns for the lead tracks would largely coincide with columns for the mainline guideway for Alternatives EGN-2B and EGN-3E along the south side of SR 526 described in Section 4.6.1.7. Columns for the lead tracks across SR 526 would be designed to current standards for fixed objects, vertical and horizontal clearances, and other infrastructure-related safety elements. The columns would also be set back from the roadway to provide adequate sight distance for vehicles making maneuvers along adjacent roadways.

**4.6.2 No Build Alternative**

Transportation safety under the No Build Alternative is expected to be similar to or better than existing conditions with planned transportation improvements and the anticipated modest background traffic volume growth.

Major transportation projects in the study area assumed to be completed include the City of Lynnwood's Poplar Way Extension bridge project to connect Poplar Way and 33rd Avenue W; Snohomish County projects for the creation of a new crossing north of 164th Street SW, 130th Street SE extension and crossing, and widening of 128th Street SW/Airport Road; and a City of Everett project to widen Broadway to five lanes with bicycle lanes, sidewalks, a new bridge, and transit signal priority. Several smaller projects in the study area designed for improving pedestrian and bicycling facilities are also assumed to be completed as part of the No Build Alternative (see Draft EIS Appendix C).

## 4.7 Aviation

This section discusses potential effects of the EVLE Project on aviation facilities in the project corridor for the No Build Alternative and Build Alternatives. There is one major aviation facility along the EVLE corridor: Paine Field, which is in the SR 99/Airport Road and SW Everett Industrial Center Segments and near OMF Site E.

### 4.7.1 Build Alternatives

None of the alignment/station alternatives in the SR 99/Airport Road Segment, or SW Everett Industrial Center Segment, nor OMF Site E, would affect airport operations or cause a hazard to air navigation. The alignment would avoid impacts to FAA-regulated areas by placing the guideway directly outside of the existing RPZ, and no project elements extend into the RPZ. However, the SW Everett Industrial Center Segment Build Alternatives and OMF Site E would require acquisition of or easements on airport-owned property on the east side of Airport Road. Any easement or transfer of federally conveyed or federally acquired land may require FAA approval, and Snohomish County would have to ensure that the land use change is consistent with its federal obligations. The operational impacts of the EVLE Project on airport-owned property are described in the sections below.

The project would improve public transportation access to Paine Field, particularly with Alternative SWI-1C which would be the closest station location to the airport. The station area, regardless of alternative, would include an elevated station platform, transit plaza, and designated areas for vehicular and bus pick-up/drop-off, including microtransit and airport shuttles.

#### 4.7.1.1 SR 99/Airport Road Segment

Neither of the Build Alternatives in the SR 99/Airport Road Segment would have operational impacts on airport-owned property.

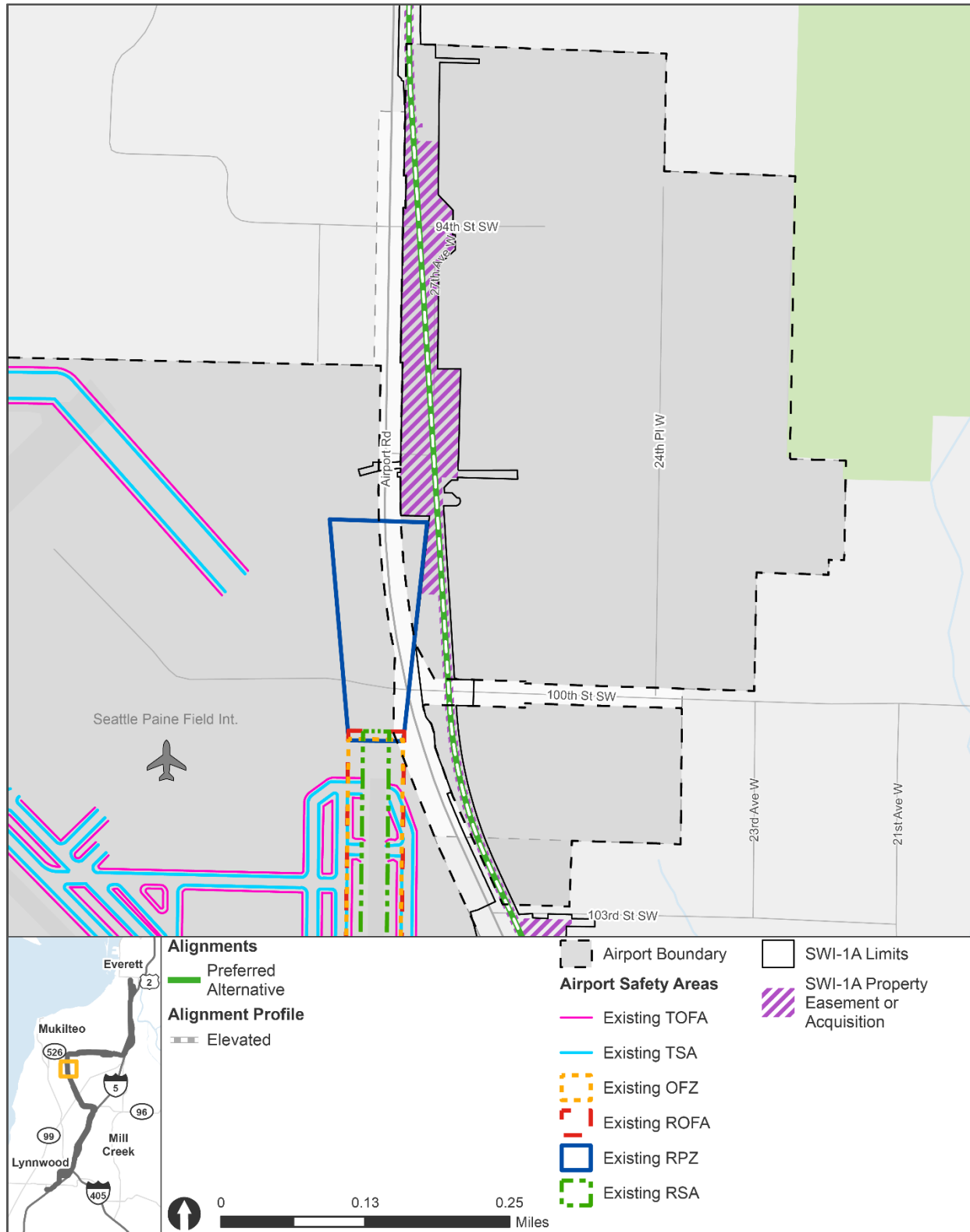
#### 4.7.1.2 SW Everett Industrial Center Segment

All Build Alternatives in the SW Everett Industrial Center Segment would impact airport-owned property on the east side of Airport Road. All alternatives in this segment would have elevated guideway on airport-owned property. Alternative SWI-1C would also have the station area and platform on airport-owned property. Alternatives SWI-1A, SWI-1B, and SWI-1A Lower Design Option would acquire approximately 13 acres, and Alternative SWI-1C would acquire approximately 34 acres. For all alternatives, Sound Transit would need to acquire airport property or obtain an easement that would remove the land from dedicated airport use. Currently, this land is developed as a business park leased to a variety of office and industrial



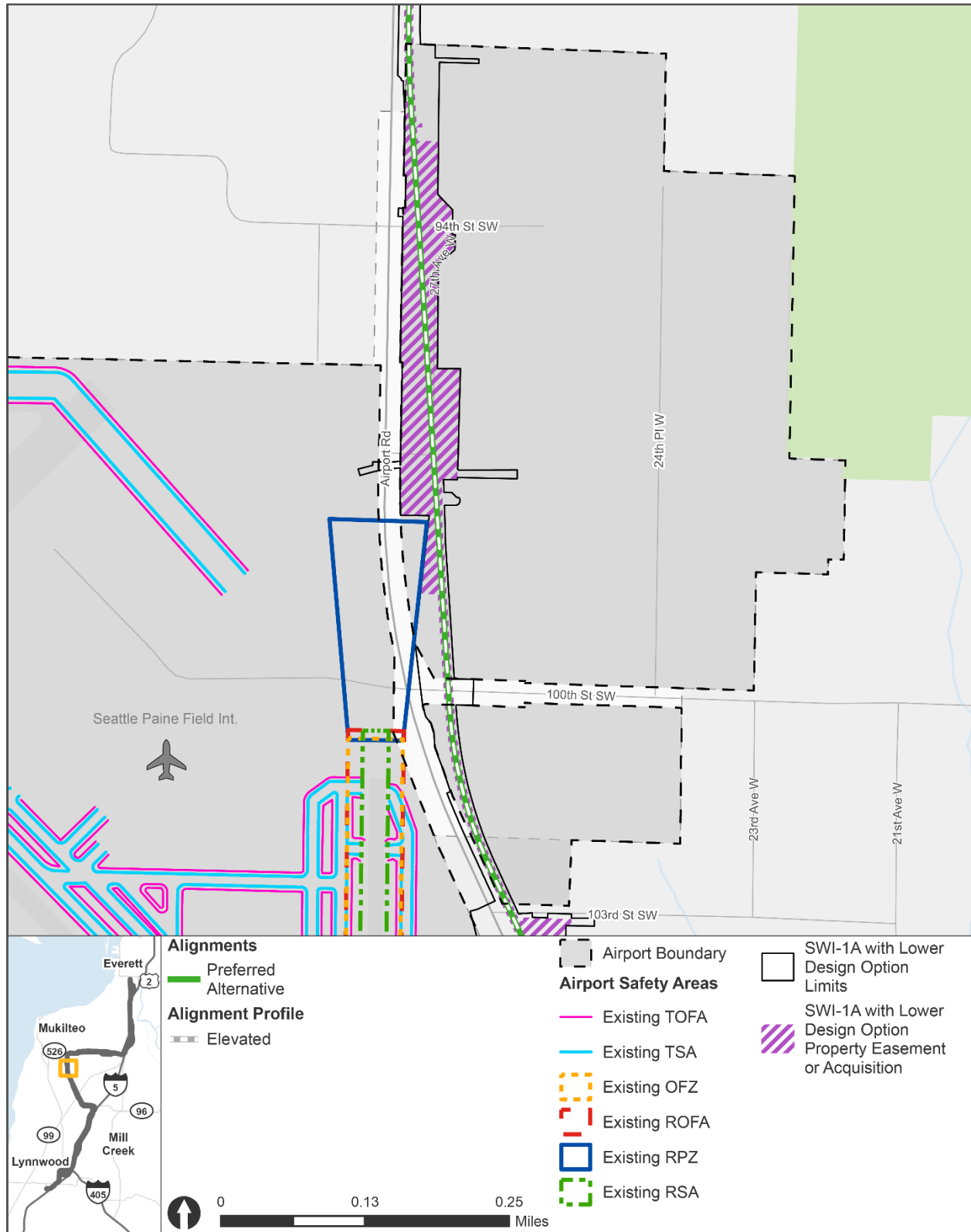
uses. Figure 4-34 to Figure 4-36 show where acquisition or easement would be required on airport property.

Figure 4-38 Paine Field – Alternative SWI-1A



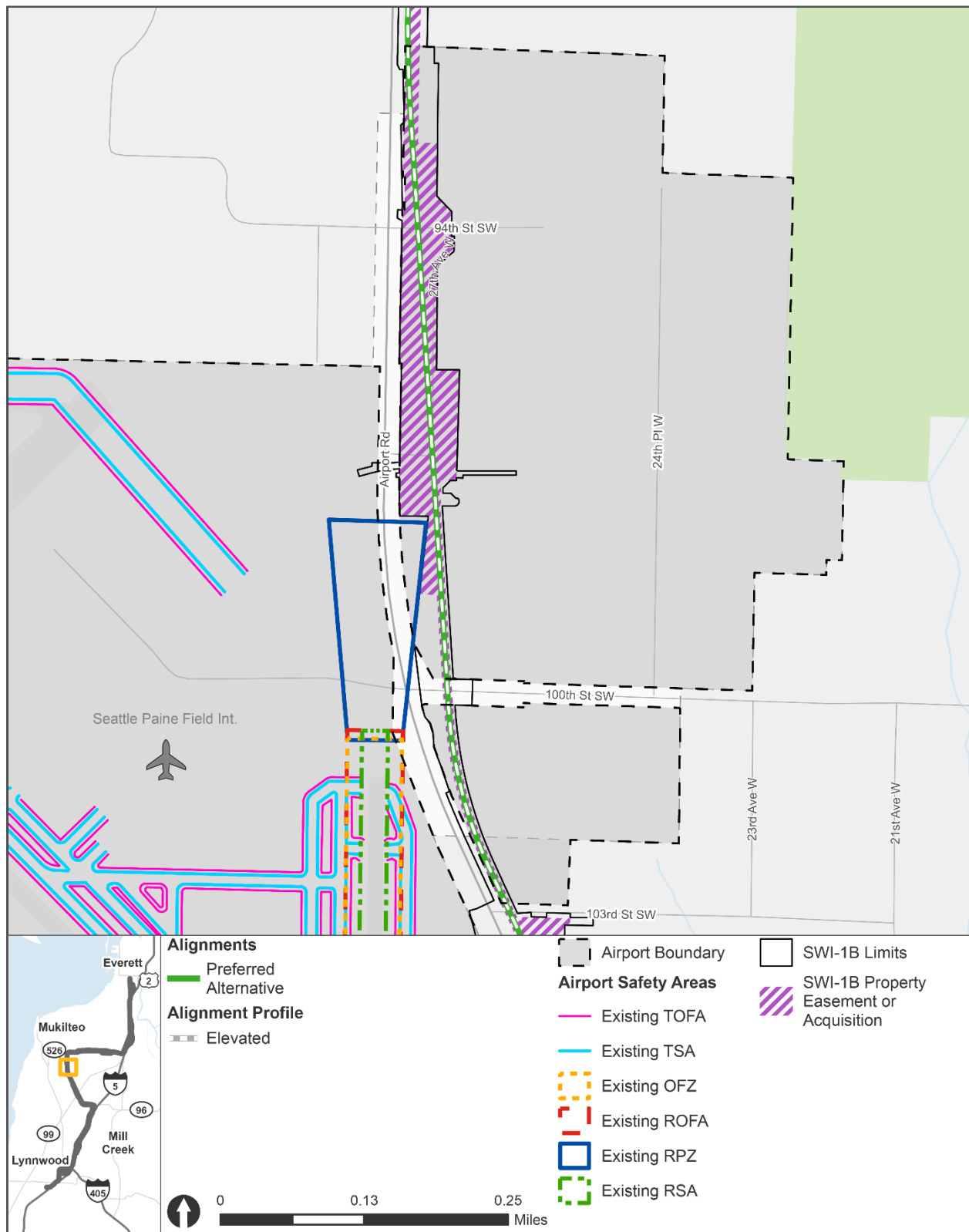
SOURCE: Snohomish County (2024).

Figure 4-39 Paine Field – Alternative SWI-1A with Lower Design Option



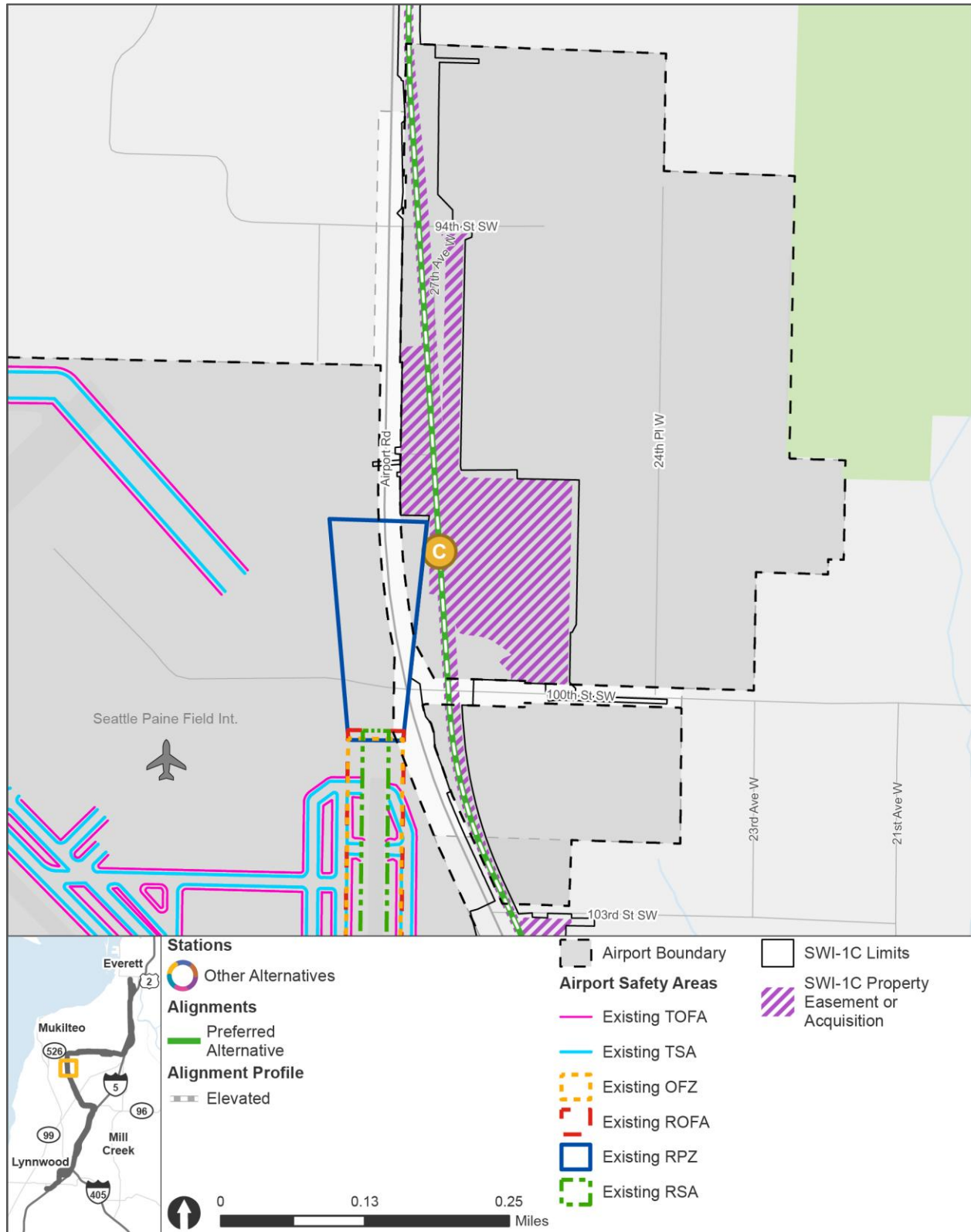
SOURCE: Snohomish County (2024).

Figure 4-40 Paine Field – Alternative SWI-1B



SOURCE: Snohomish County (2024).

Figure 4-41 Paine Field – Alternative SWI-1C



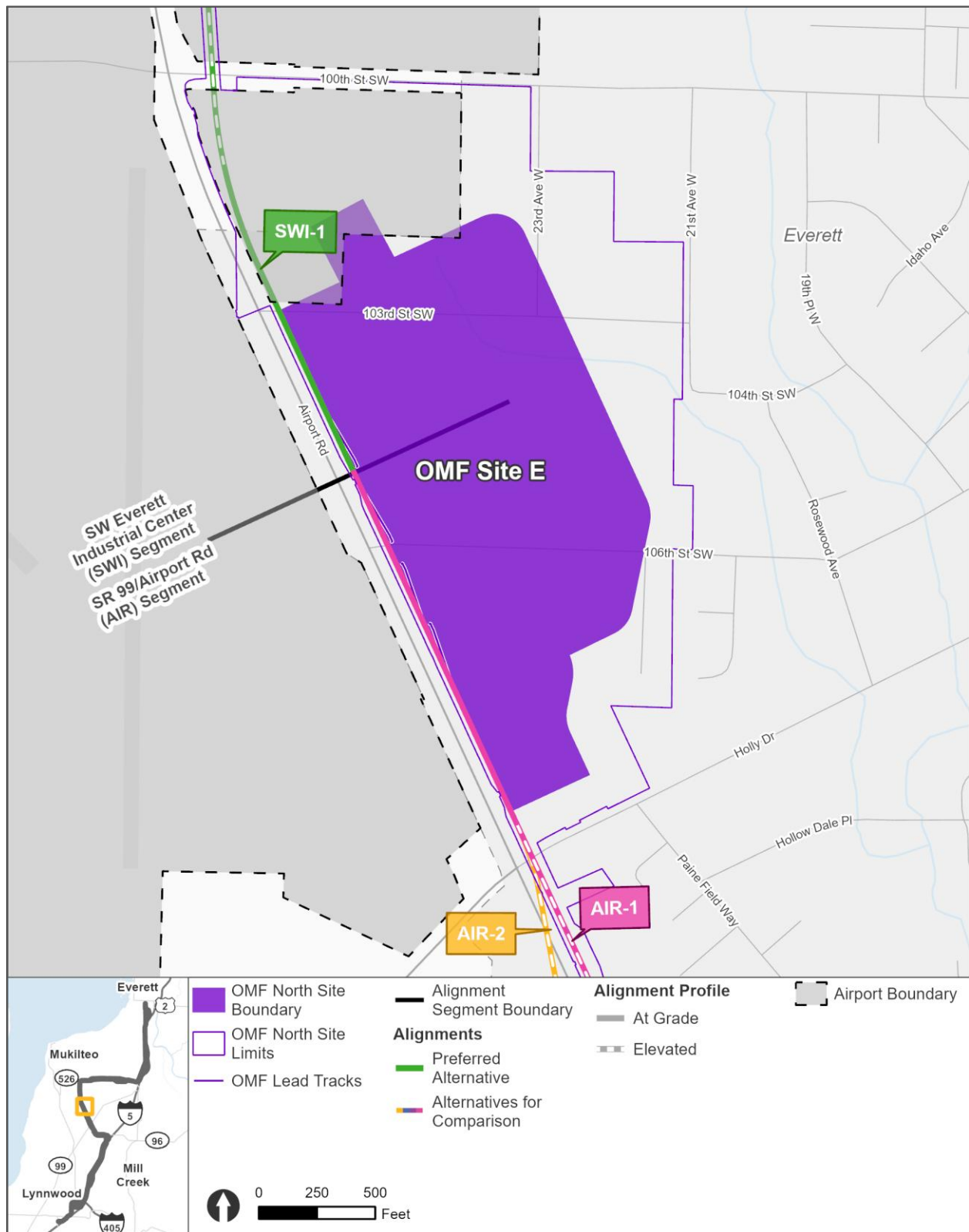
SOURCE: Snohomish County (2024).



#### **4.7.1.3 OMF Site E (Airport Road)**

OMF Site E would impact approximately 15 acres of airport-owned property located southeast of the intersection of Airport Road and 100th Street SW (see Figure 4-42). This airport property is currently open space with wetlands and forested areas and does not contain any buildings. Per the *Paine Field Master Plan 2040*, this site is planned for commercial/industrial airport compatible development (Snohomish County 2024). OMF Site E would require the sale or conveyance of the land to Sound Transit from Paine Field with the approval of the FAA. The site would be exclusively used by Sound Transit staff and maintenance personnel and would not allow public access.

Figure 4-42 Paine Field – OMF Site E



SOURCE: Snohomish County (2024).

### 4.7.2 No Build Alternative

Paine Field is expecting the number of commercial passengers to increase by 7.1% between 2025 and 2040 (Snohomish County 2024). The *Paine Field Master Plan 2040* (Snohomish County 2024) establishes the airport's planned facility improvements needed to provide sufficient capacity to meet this forecasted demand. This includes airfield taxiway improvements, additional passenger terminal facilities, parking expansion, and roadway improvements. These planned aviation improvements would advance under the No Build Alternative.

## 4.8 Freight

This section discusses potential future freight conditions under the No Build Alternative and Build Alternatives. In general, impacts to traffic operations, as described in Section 4.3, would affect both general-purpose and freight traffic. This section summarizes the potential effects unique to freight traffic or facilities.

### 4.8.1 Build Alternatives

#### 4.8.1.1 Impacts Common to All Build Alternatives

With the construction of the EVLE Project, freight traffic would still be expected to use the designated freight facilities. The distribution of trucks on I-5, 128th Street SW/Airport Road, Evergreen Way, SR 526, 4th Avenue W, Broadway, and other major freight routes in the study area would be similar to the No Build Alternative conditions.

Because the Build Alternatives would be either grade-separated or travel in an exclusive light rail guideway outside the roadway travel lanes, freight mobility and access would be similar to automobile mobility and access.

#### 4.8.1.2 West Alderwood Segment

##### ***Alternative ALD-1B***

Station ALD-B would be located in the existing parking lot south of Alderwood Mall. The guideway would be elevated along the west side of I-5, in between the SB travel lanes and on-ramp near the Interurban Trail, turning north near 33rd Avenue W, then turning east near 188th Street SW. There would be no at-grade crossings in the West Alderwood Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system. Alternative ALD-1B would not permanently impact loading areas for private businesses.

##### ***Alternative ALD-1B with Alderwood Mall Boulevard Design Option***

The Alderwood Mall Boulevard Design Option would have the same impacts to freight traffic circulation and property loading access as Alternative ALD-1B.

**Alternative ALD-2D**

Station ALD-D would be located in the existing parking lot west of Alderwood Mall. The guideway would be elevated along the west side of I-5, in between the SB travel lanes and on-ramp near the Interurban Trail, turning north near 33rd Avenue W, then turning east near 184th Street SW. There would be no at-grade crossings in the West Alderwood Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system. Alternative ALD-2D would not permanently impact loading areas for private businesses.

**Alternative ALD-2D with Alderwood Mall Boulevard Design Option**

The Alderwood Mall Boulevard Design Option would have the same impacts to freight traffic circulation and property loading access as Alternative ALD-2D.

**Alternative ALD-2F**

Station ALD-F would be located in the existing parking lot north of Alderwood Mall. The guideway would be elevated along the west side of I-5, in between the SB travel lanes and on-ramp near the Interurban Trail, turning north near 33rd Avenue W, then turning east near 184th Street SW. There would be no at-grade crossings in the West Alderwood Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system. Alternative ALD-2F would not permanently impact loading areas for private businesses.

**Alternative ALD-2F with Alderwood Mall Boulevard Design Option**

The Alderwood Mall Boulevard Design Option would have the same impacts to freight traffic circulation and property loading access as Alternative ALD-2F.

**4.8.1.3 Ash Way Segment****Alternative ASH-1A**

Station ASH-A would be located in the north half of the existing Ash Way Park-and-Ride. The guideway would be elevated along the west side of I-5, transitioning to an at-grade profile near Maple Road, elevated near 170th Street SW, and back to at-grade near Oak Road. There would be no at-grade crossings in the Ash Way Segment. There would be no at-grade crossings in the Ash Way Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system. Freight mobility, access, and circulation for businesses on Ash Way may be slightly affected by a new traffic signal on Ash Way to access the station loop road. Alternative ASH-1A would not permanently impact loading areas for private businesses.

**Alternative ASH-2D**

Station ASH-D would be located on the northeast side of the I-5/164th Street SW interchange. The guideway would be elevated along the west side of I-5, transitioning to an at-grade profile near Maple Road. The guideway would then transition to elevated near 177th Place SW, cross from west to east over I-5 south of the 164th Street SW interchange, and transition back down to an at-grade profile near Oak Road. There would be no at-grade crossings in the Ash Way Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system. Alternative ASH-2D would not permanently impact loading areas for private businesses.

**4.8.1.4 Mariner Segment****Alternative MAR-1B**

Station MAR-B would be bounded on the north by 128th Street SW, on the west by 8th Avenue W, and on the south by the planned 130th Street SW. The guideway would be elevated on the west side of I-5 and turn west near 128th Street SW, continuing elevated along the south side of 128th Street SW near Airport Road. There would be no at-grade crossings in the Mariner Segment. There would be no at-grade crossings in the Mariner Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative MAR-1B would require modifications to loading areas for some private businesses on the southwest side of the 4th Avenue NW/128th Street SW intersection.

**Alternative MAR-1B with Surface Parking Design Option**

The Surface Parking Design Option would have the same impacts to freight traffic circulation and loading areas as Alternative MAR-1B.

**Alternative MAR-2D**

Station MAR-D would be bounded on the north by the planned 130th Street SW, on the east by 4th Avenue W, on the south by 132nd Street SW, and on the west by 8th Avenue W. The guideway would run elevated roughly parallel to 4th Avenue W then turn west and cross over 128th Street SW near 8th Avenue W, continuing along the north side of 128th Street SW in the vicinity of Airport Road. There would be no at-grade crossings in the Mariner Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative MAR-2D would require modifications to loading areas for some private businesses in the southwest side of the 4th Avenue NW/128th Street SW intersection.

**Alternative MAR-2D with Surface Parking Design Option**

The Surface Parking Design Option would have the same impacts to freight traffic circulation and loading areas as Alternative MAR-2D.



#### **4.8.1.5 SR 99/Airport Road Segment**

##### ***Alternative AIR-1A***

Station AIR-A would be located on the north corner of the intersection of SR 99/Airport Road. The guideway would be elevated on the east side of Airport Road. There would be no at-grade crossings in the SR 99/Airport Road Segment. There would be no at-grade crossings in the SR 99/Airport Road Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. General traffic flow through this station area would be reduced by two new traffic signals: one on Airport Road and one on SR 99. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative AIR-1A would require modifications to loading areas for some private businesses at the Airport Road/SR 99 intersection.

##### ***Alternative AIR-2B***

Station AIR-B would be located on the west corner of the intersection of SR 99/Airport Road. The guideway would be elevated on the west side of Airport Road. There would be no at-grade crossings in the SR 99/Airport Road Segment. There would be no at-grade crossings in the SR 99/Airport Road Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. General traffic flow through this station area would be reduced by a new traffic signal on Airport Road. The station location in this Build Alternative would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative AIR-2B would require modifications to loading areas for some private businesses at the Airport Road/SR 99 intersection and north of this intersection on the west side of Airport Road.

#### **4.8.1.6 SW Everett Industrial Center Segment**

##### ***Alternative SWI-1A***

Station SWI-A would be located on the northwest side of Casino Road. The guideway would run elevated generally along the east side of Airport Road, curving east south of SR 526 and continuing along the south side of SR 526. There would be no at-grade crossings in the SW Everett Industrial Center Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. General traffic flow through this station area would be reduced by a new traffic signal on Casino Road. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative SWI-1A would not permanently impact loading areas for private businesses; however, modifications to these parking areas required to accommodate the guideway and station may cause minor freight circulation changes.

##### ***Alternative SWI-1A with Lower Design Option***

Alternative SWI-1A with Lower Design Option would have the same impacts to freight traffic circulation and loading areas as Alternative SWI-1A.

**Alternative SWI-1B**

Station SWI-B would be bounded on the north by Casino Road, on the west by Airport Road, and on the south by Kasch Park Road. The guideway would run elevated generally along the east side of Airport Road, curving east south of SR 526 and continuing along the south side of SR 526. There would be no at-grade crossings in the SW Everett Industrial Center Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. General traffic flow through this station area would be reduced by a new traffic signal on Casino Road. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative SWI-1B would not permanently impact loading areas for private businesses; however, modifications to these parking areas required to accommodate the guideway and station may cause minor freight circulation changes.

**Alternative SWI-1C**

Station SWI-C would be located on Airport Road near the 29th Avenue W underpass. The guideway would run elevated generally along the east side of Airport Road, curving east south of SR 526 and continuing along the south side of SR 526. There would be no at-grade crossings in the SW Everett Industrial Center Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. Alternative SWI-1C would not permanently impact loading areas for private businesses, but modifications to how the loading areas are accessed would be required to accommodate the guideway and realigned station access road.

**4.8.1.7 SR 526/Evergreen Segment****Alternative EGN-1A**

Station EGN-A would be bounded on the south by the SR 526 WB on-ramp from Evergreen Way, on the west by Beverly Lane, and on the east by Evergreen Way. The guideway would be elevated and cross to the north side of SR 526 near Seaway Boulevard, transition to at-grade near 16th Ave W, and transition back to elevated near 8th Avenue W. The guideway would then go back to at-grade near Upper Ridge Road, cross under Evergreen Way, then continue at-grade with a short elevated section near E Casino Road. There would be no at-grade crossings in the SR 526/Evergreen Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EGN-1A would not permanently impact loading areas for any private businesses.

**Alternative EGN-2B**

Station EGN-B would be bounded on the north by the SR 526 EB off-ramp onto Evergreen Way, on the east by Evergreen Way, and on the south by W Casino Road. The guideway would start elevated along the south side of SR 526, transition to at-grade near 16th Avenue W and back to elevated near 5th Avenue W. The elevated guideway would then cross to the north side of SR 526 at the SR 526 and Evergreen Way interchange and continue along the northern side of SR

526, becoming at-grade around Xavier Way. There would be no at-grade crossings in the SR 526/Evergreen Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EGN-2B would require modifications to loading areas for some private businesses at the northeast corner of the W Casino Road/Evergreen Way intersection.

### ***Alternatives EGN-2B with North Side of SR 526 Design Option***

The North Side of SR 526 Design Option would have the same impacts to freight traffic circulation and loading areas as Alternative EGN-2B.

### ***Alternative EGN-3E***

Station EGN-E would be bounded on the north by W Casino Road, on the east by Holly Drive, and on the west by Evergreen Way. The guideway would start elevated along the south side of SR 526, transition to at-grade near 16th Avenue W and back to elevated near 5th Avenue W. The elevated guideway would then move to the south side of Casino Road before crossing Evergreen Way. The guideway would continue elevated along Casino Road, cross to the north side of SR 526 near 9th Avenue SE, and continue along the northern side of SR 526, becoming at-grade around Xavier Way. There would be no at-grade crossings in the SR 526/Evergreen Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EGN-3E would not permanently impact loading areas for private businesses, but modifications to accessing the loading areas are required to accommodate the guideway and realigned station access road.

### ***Alternative EGN-3E with North Side of SR 526 Design Option***

The North Side of SR 526 Design Option would have the same impacts to freight traffic circulation and loading areas as Alternative EGN-3E.

## **4.8.1.8 Broadway/I-5 Segment**

### ***Alternative BI-1***

With Alternative BI-1, the guideway would run at-grade along the west side of I-5 from SR 526 with an aerial crossing over Beverly Boulevard, becoming elevated in the vicinity of Lenora Street. There would be no at-grade crossings in the Broadway/I-5 Segment. Since this Build Alternative would be grade-separated and in an exclusive light rail guideway outside the roadway travel lanes, freight mobility and access would be similar to automobile mobility and access. Alternative BI-1 require modifications to loading areas for some private businesses along the east side of Broadway near Beverly Boulevard and Spokane Drive. This alternative would not permanently impact freight rail.

### ***Alternative BI-2***

With Alternative BI-2, the guideway would run at-grade along the west side of Broadway from SR 526 and cross under Beverly Boulevard, becoming elevated near 73rd Street and continuing

north along Broadway. There would be no at-grade crossings in the Broadway/I-5 Segment. Since this Build Alternative would be grade-separated and in an exclusive light rail guideway outside the roadway travel lanes, freight mobility and access would be similar to automobile mobility and access. Alternative BI-2 would require modifications to loading areas for some private businesses to accommodate the at-grade guideway and columns in elevated sections along the west side of Broadway along the entire alignment in this segment. This alternative would not permanently impact freight rail.

#### **4.8.1.9 Everett Station Segment**

##### ***Alternative EVT-1A***

Station EVT-A would be bounded on the north by 32nd Street, on the east by Smith Avenue, on the south by 33rd Street, and on the west by McDougall Avenue. The guideway would run elevated north along the west side of Broadway, crossing east over Broadway near 41st Street, continuing northeast along I-5, and then turning north to follow Smith Avenue, ending just south of Pacific Avenue. There would be no at-grade crossings in the Everett Station Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EVT-1A would require modifications to loading areas for some private businesses that back onto the southbound lanes of I-5 between 41st Street and Smith Ave and on the west side of Smith Avenue south of 33rd Street. Modifications to access the loading areas would also be required to accommodate the guideway and realigned station access road. This alternative would not permanently impact freight rail.

##### ***Alternative EVT-2C***

Station EVT-C would be bounded on the north by Pacific Avenue, on the east by McDougall Avenue, on the south by 33rd Street, and on the west by Broadway. The guideway would run elevated north along the west side of Broadway, crossing east over Broadway near 41st Street, and then continuing north along the west side of McDougall Avenue, ending just north of Pacific Avenue. There would be no at-grade crossings in the Everett Station Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EVT-2C would require modifications to loading areas for some private businesses on the west side of McDougall Avenue. Modifications to access the loading areas would also be required to accommodate the guideway and realigned station access road. This alternative would not permanently impact freight rail.

##### ***Alternative EVT-3D***

Station EVT-D would be bounded on the north by Hewitt Avenue, on the east by McDougall Avenue, on the south by Pacific Avenue, and on the west by Broadway. The guideway would run elevated north along the west side of Broadway, crossing east over Broadway near 41st Street, continuing north along the west side of McDougall Avenue, and then shifting to follow the east side of Broadway, ending just north of Hewitt Avenue. There would be no at-grade crossings in the Everett Station Segment since the light rail would be grade-separated and in an exclusive guideway outside the roadway travel lanes. Freight mobility and access would be

similar to automobile mobility and access as described in Section 4.3. The station location would not affect truck circulation or change truck route designations on the regional and local street system beyond changes induced by projects in the No Build Alternative. Alternative EVT-3D would require modifications to loading areas for some private businesses on the west side of McDougall Avenue south of 34th Street, and between McDougall Avenue and Broadway between 34th Street and Pacific Avenue. Modifications to access the loading areas would also be required to accommodate the guideway and realigned station access road. This alternative would not permanently impact freight rail but it would abut BNSF right-of-way north of the station.

#### **4.8.1.10 OMF North Site Alternatives**

##### ***OMF Site F (SR 99)***

OMF Site F would require the realignment of Gibson Road (currently a T-3 truck route) between SR 99 and Alexander Road along the southwest edge of the OMF site. The east end of the realigned Gibson Road would have an intersection with SR 99 approximately 600 feet south of the existing SR 99/Gibson Road intersection. The west end of the realigned Gibson Road would have an intersection with Alexander Road approximately 1,000 feet south of the existing Alexander Road/Gibson Road intersection. Center Road west of Airport Road (currently a T-3 truck route) would be shortened and a cul-de-sac street end constructed to remove access to Alexander Road. Access to Alexander Road from Airport Road would be maintained by the extension of the north end of Alexander Road to meet at a new signalized three-way intersection with Airport Road, approximately 600 feet north of the existing Airport Road/Center Road intersection. The changes to these two T-3 truck routes may introduce minor delays to local freight traffic due to increased turning movements along these truck routes.

OMF Site F would have two roadway vehicle access points: one driveway on the west side of SR 99 approximately 500 feet south of the intersection with Airport Road, and the other on the north side of the realigned Gibson Road. Both SR 99 and Gibson Road are classified as T-3 truck routes in this area. Vehicles accessing these driveways may lead to minor freight congestion increases due to site access turning movements. This site would require the acquisition of several parcels currently used for industrial purposes; this would reduce some local freight traffic, potentially reducing the possibility of delays due to turning movements.

##### ***OMF Site F with Lead Tracks to West Side of Airport Road Design Option***

OMF Site F with Lead Tracks to West Side of Airport Road Design Option would have the same impacts to freight mobility and access as OMF Site F.

##### ***OMF Site E (Airport Road)***

OMF Site E would include two roadway vehicle access points: one driveway from the north side of Holly Drive approximately 400 feet east of the intersection with Airport Road, and the other on the south side of 100th Street SW that would connect at the existing intersection with 24th Place W. Vehicles accessing the OMF site would be required to use Airport Road, a T-1 truck route, and the driveway on 100th Street SW opens into a T-3 truck route. Other vehicles accessing this site may also use SR 99 (a T-3 truck route) or Evergreen Way (a T-1 truck route). As such, traffic accessing this OMF site alternative may impact freight mobility on adjoining truck routes.



**OMF Site B (SR 526)**

OMF Site B would include two roadway vehicle access points: one driveway on the south side of 75th Street SW approximately 1,000 feet west of the intersection with Hardeson Road, and the other on the west end of 80th Street SW approximately 1,500 feet west of the intersection with Hardeson Road. None of these roadways are classified as truck routes by WSDOT, though vehicles accessing this OMF site alternative may use Seaway Boulevard, a T-1 truck route.

This OMF site alternative would close through-access along 80th Street SW west of the site. Local freight traffic circulation would be affected by this road closure. Freight traffic accessing the properties on the west end of 80th Street SW near the intersection with 16th Avenue W would no longer have direct access from Hardeson Road; instead, freight access from Hardeson Road would be required to use 75th Street SW and 16th Avenue W.

Vehicles accessing this OMF site alternative and changes to the roadway in the vicinity of the OMF site would cause some minor changes to freight traffic circulation and mobility. However, the acquisition of several parcels currently used for industrial purposes would reduce vehicular traffic in the area, potentially reducing the adverse effects on local freight mobility.

**OMF Site B with Lead Tracks to South Side of SR 526 Design Option**

OMF Site B with Lead Tracks to South Side of SR 526 Design Option would have the same impacts to freight mobility and access as OMF Site B.

**4.8.2 No Build Alternative**

With the No Build Alternative, there are several planned changes to the freight network in addition to the slight growth in expected future traffic volumes. The planned changes to the network by WSDOT, Snohomish County, the City of Lynnwood, and the City of Everett to principal arterial corridors and interchanges are designed to improve freight access. The net effect of network improvements and anticipated future traffic volume growth may result in increased freight traffic volumes through the project area.

Projects in the No Build Alternative of particular concern to freight traffic movements exist in several locations along the EVLE Project corridor. In the West Alderwood Segment, the City of Lynnwood's Poplar Extension Bridge project would connect the T-3 truck route on Poplar Way across I-5 to 33rd Avenue NW. The City also plans to realign 33rd Avenue W to a new intersection at 33rd Avenue W and 184th Street SW, which would provide a more direct access to the existing Costco store. This realignment may change freight traffic circulation to access other businesses either connected to the existing intersection of 33rd Avenue W and 184th Street SW, or those by the new intersection.

In the Mariner Segment, Snohomish County plans a bridge extension to connect 130th Street SW to 130th Street SE across I-5. Currently, 130th Street SE is a T-3 truck route, and the existing bridge over I-5 at 128th Street SW is a T-2 truck route east of the interchange and a T-1 truck route west of the interchange. The planned bridge at 130th Street would provide an alternate to the existing truck routes that may be used by freight traffic and do not require through-access to the Airport Road T-1 truck route to the Paine Field/Boeing Everett Manufacturing/Industrial Center. Alongside this planned bridge, the City of Everett plans interchange improvements to I-5 at the intersection with 128th Street SW. There are also planned improvements to 8th Avenue W, which is a T-3 truck route.

Extending from the Mariner Segment to the SR 99/Airport Road Segment, Snohomish County plans to widen 128th Street SW/Airport Road to increase vehicle capacity along the corridor. Upon completion, these changes would improve freight access along this T-1 truck route. The City of Everett also plans for 4th Avenue W to be widened and improved between 104th Street SW to 112th Street SW. This roadway is currently classified as a T-3 truck route, with 4th Avenue W south of this section classified as T-2.

In the SW Everett Industrial Center Segment, improvements are planned by the City of Everett along 100th Street SW between Airport Road and 4th Avenue W, which is a T-3 truck route. WSDOT also plans to make improvements along the SR 526 corridor between West Perimeter Road and I-5, which is a T-2 truck route. This planned work would also improve freight access and mobility in the SR 526/Evergreen Segment, especially at the interchange of SR 526 and I-5, which is a T-1 truck route.

Along the EVLE Project corridor from the Mariner Segment to the Everett Station Segment, the City of Everett's planned Evergreen Way improvements from Airport Road to 41st Street SE may also improve freight access along this road, which is classified as a T-1 truck route for the majority of the City's project area, and as T-2 and T-3 in the remaining portions.

There are several additional planned freight projects under the No Build Alternative in the Everett Station Segment. The City of Everett is planning arterial and access improvements from the Port of Everett on W Marine View Drive, via Rucker Avenue and 41st Street SE, to I-5. These improvements affect T-1 (41st Street) and T-2 (Rucker Avenue) truck routes by better accommodating over-dimensional freight traffic and increasing general freight traffic along this route. The City also plans to build infrastructure that would accommodate current and future transportation demand and improve downtown Everett connectivity to I-5 and US 2 (both are T-1 truck routes). These planned connectivity improvements would also impact Pacific Avenue, a T-2 truck route.

## 4.9 Potential Design Refinements

As mentioned in Section 1.2, Sound Transit is considering potential design refinements in each alignment segment. Potential changes to transportation resources resulting from the potential design refinements are described in Table 4-45.

**Table 4-45 Potential Changes to Transportation Impacts**

| Potential Design Refinement                                                                      | Applicable Alternatives                    | Potential Changes to Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Move the turnback tracks from the Mariner Segment to an at-grade portion of the Ash Way Segment. | All Ash Way and Mariner Build Alternatives | Would have operational impacts on the overall project as the 2 Line would terminate at Ash Way instead of Mariner, reducing service at the Mariner Station. Changing the location of the turnback tracks could increase parking demand near Ash Way Station. Use of existing transportation right-of-way would be slightly expanded along Airport Road due to the placement of an additional column in the center of the roadway. The roadway would be realigned to avoid the column, but there would be no long-term impacts on vehicle travel through this area. |
| Change profile from elevated to at-grade where able.                                             | SWI-1A                                     | Would require closing the east leg of Airport Road and 94th Street SW intersection; alternative access would be provided via 100th Street SW.                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 5 CONSTRUCTION IMPACTS

This section provides an overview of potential construction impacts for regional transportation facilities (e.g., I-5) and travel, transit, arterial and local street operations, parking, non-motorized facilities, safety, aviation facilities and operations, and freight mobility and access that would be caused by the construction of the EVLE Project Build Alternatives.

Chapter 2 of the Draft EIS provides an overview of potential construction activities and timing, and a summary of that information is included here. Major activities would include:

- **Civil construction:** This includes utility relocation, foundation and column placement, guideway construction, and track work, along with construction of other facilities such as stations, park-and-ride lots and structures, and ancillary facilities.
- **Systems installation:** This includes the installation of the electrical system that would power the trains.
- **Testing and startup activities:** Before beginning revenue operations, Sound Transit would complete a safety certification process by testing vehicles, communications, safety, and emergency systems.

Construction would occur across different parts of the corridor between 2030 and 2046. Activities would be most intense in the initial part of construction, with later periods involving station finishing, systems installation, and testing. For all Build Alternatives, construction would likely be staged and occur in work zones of various sizes along the corridor. Construction activities expected to have roadway impacts include utility relocation, street reconstruction, foundation and column construction, guideway placement, truck hauling, demolition, and construction staging. The impacts from truck hauling were evaluated based on the number of truck trips and potential haul routes, as discussed in the following subsection.

For EVLE Project construction activities described in the following sections, maintenance of traffic designs were based on the following assumptions and constraints:

- Partial lane closures assumed that a minimum of one 11-foot lane can be maintained in each direction on local and arterial streets.
- Night closures assumed from 9 p.m. to 5 a.m.
- Weekend closures assumed from 9 p.m. Friday to 5 a.m. Monday.
- Non-peak closures assumed all hours except between 5 a.m. to 10 a.m. and 2 p.m. to 7 p.m.
- Short-term closure assumed closure less than 1 month.
- Moderate-term closure assumed closure between 1 and 4 months.
- Long-term closure assumed closure greater than 4 months.
- 24/7 closures assumed to be closed at all hours for the duration of the construction period.

There are several factors that affect how a project is built, including site-specific conditions, permit requirements, and market conditions at the time of construction. Many impacts described in this section are discussed qualitatively because the exact construction means and methods cannot be known until a construction contractor is selected, and the design would likely be adjusted during preliminary and final design as additional information on site conditions is

obtained. Statements below regarding closures or other impacts are based on common engineering and construction practices for the types of work shown in the conceptual design drawings in Draft EIS Appendix F. Sound Transit will coordinate with each authority having jurisdiction (AHJ) regarding the necessary permits required for construction, and specific permit conditions to address construction issues would be determined through these processes.

## **5.1 Regional Transportation Network**

### **5.1.1 Impacts Common to All Build Alternatives**

As the EVLE Project runs along segments of SR 526 and I-5, these two roadways would likely experience nighttime and/or weekend partial or complete closures during parts of the project's construction phase. The potential construction staging areas would include areas where guideway and station facility construction would likely occur and nearby parcels. For elevated guideway construction, peak truck trips were estimated at 10 to 15 trucks per day. The duration of this truck activity would vary from a few nights to several months of intermittent truck traffic at a given location, depending on the type of construction needed. A similar level of truck activity is expected for earthwork activities, but this would be focused on trucks hauling material during excavation and backfill operations and would not occur at the same time and location as guideway construction.

Construction truck traffic would typically use I-5, I-5 ramps, SR 526, and SR 526 ramps, as well as adjacent arterials and local roads if required, as accessways for construction along these corridors. Pending coordination with and approval from WSDOT, entire lanes of I-5 and SR 526 could be closed for construction activities, such as transmission and distribution electrical line relocations and tree removal along the periphery of these roads. Tree removal would likely require closure of the shoulder and one lane of traffic periodically over several months for safety purposes and is expected to occur only during daytime hours outside of peak commute times.

### **5.1.2 West Alderwood Segment**

All Build Alternatives in the West Alderwood Segment would include moderate duration night-only full closures of several ramps in the I-5/I-405/SR 525 interchange including: the NB I-405 to SB I-5 ramp, the NB I-5 to NB SR 525 ramp, the SB SR 525 to SB I-5 ramp, NB and SB SR 525, the SB I-5 off ramp.

### **5.1.3 Ash Way Segment**

#### **5.1.3.1 Alternative ASH-1A**

Alternative ASH-1A would have no construction impacts to regional transportation facilities.

#### **5.1.3.2 Alternative ASH-2D**

Alternative ASH-2D would require the elevated guideway to cross over I-5 at two points: in the south portion of the segment approximately 0.3 miles south of 164th Street SW, and in the north portion of the segment approximately 0.6 miles southwest of 128th Street SW. At these two crossing points, short-term night-only full closures of NB and SB lanes of I-5 would be required

for construction activities. Traffic may be required to be diverted to use SR 525 and SR 99 or SR 527.

#### **5.1.4 Mariner Segment**

There would be no construction impacts to regional transportation facilities in the Mariner Segment.

#### **5.1.5 SR 99/Airport Road Segment**

##### **5.1.5.1 Alternative AIR-1A**

Alternative AIR-1A would require short-term night-only full closures of SR 99 on the east side of Airport Road for guideway construction activities. The SR 99 closure may divert traffic towards other arterial roads in the vicinity.

##### **5.1.5.2 Alternative AIR-2B**

Alternative AIR-2B would require overnight full closures of SR 99 on the west side of Airport Road for guideway construction activities. The SR 99 closure may divert traffic towards other arterial roads in the vicinity.

#### **5.1.6 SW Everett Industrial Center Segment**

All Build Alternatives in the SW Everett Industrial Center Segment would require closures at various points for the construction of the elevated guideway along SR 526. Guideway construction along SR 526 would require short-term night-only closure of a single EB lane on SR 526. These closures would be accompanied by long-term 24/7 closures of the EB lane shoulder of SR 526.

#### **5.1.7 SR 526/Evergreen Segment**

##### **5.1.7.1 Impacts Common to All SR 526/Evergreen Segment Alternatives**

For all Build Alternatives, there would be a closure of the SR 526 shoulder adjacent to the guideway construction zone for the duration of the project.

##### **5.1.7.2 Alternative EGN-1A**

Under Alternative EGN-1A, short-term night-only full closures would also be required on the SR 526 mainline.

##### **5.1.7.3 Alternatives EGN-2B and EGN-2B with North Side of SR 526 Design Option**

For Alternatives EGN-2B and EGN-2B with North Side of SR 526 Design Option, moderate-term night-only full closures of SR 526 east of Evergreen Way would also be required for the construction of the elevated guideway crossing of SR 526 at this location.



#### **5.1.7.4 Alternatives EGN-3E and EGN-3E with North Side of SR 526 Design Option**

Under Alternatives EGN-3E and EGN-3E with North Side of SR 526 Design Option, overnight full closures of SR 526 east of Evergreen Way would also be required for the construction of the elevated guideway crossing of SR 526 at this location.

#### **5.1.8 Broadway/I-5 Segment**

There would be no construction impacts to regional transportation facilities in the Broadway/I-5 Segment.

#### **5.1.9 Everett Station Segment**

There would be no construction impacts to regional transportation facilities in the Everett Station Segment.

#### **5.1.10 OMF North Site Alternatives**

##### **5.1.10.1 OMF Site F**

OMF Site F would have no construction impacts to regional transportation facilities.

##### **5.1.10.2 OMF Site F with Lead Tracks to the West Side of Airport Road Design Option**

OMF Site F with Lead Tracks to the West Side of Airport Road Design Option would require full overnight closures of SR 99 for the construction of elevated guideway sections. This may require rerouting some late night or early morning bus trips.

##### **5.1.10.3 OMF Site E**

OMF Site E would have no construction impacts to regional transportation facilities.

##### **5.1.10.4 OMF Site B**

OMF Site B would have no construction impacts to regional transportation facilities.

##### **5.1.10.5 OMF Site B with Lead Tracks to South Side of SR 526 Design Option**

OMF Site B with Lead Tracks to South Side of SR 526 Design Option would require overnight closures of SR 526 to construct the long span bridges over the road. This may require rerouting some late night or early morning bus trips.

### **5.2 Transit**

#### **5.2.1 Impacts Common to All Build Alternatives**

All Build Alternatives would include lane closures, bus stop relocations, partial or full closures of park-and-ride facilities, and sidewalk impacts that could affect transit operations within the study area during construction.

## **5.2.2 West Alderwood Segment**

### **5.2.2.1 Impacts Common to All West Alderwood Segment Alternatives**

All Build Alternatives in the West Alderwood Segment would temporarily close lanes on 200th Street between 44th and 40th Avenues, Alderwood Mall Boulevard, and along 33rd Avenue, including some full closures overnight which could impact bus operations and require the temporary relocation of bus stops along those roads. All alternatives would require full overnight closures of SR 525, which may impact some late night or early morning trips.

#### **5.2.2.2 Alternative ALD-1B**

Alternative ALD-1B would not result in construction phase transit impacts beyond those mentioned for all Build Alternatives.

#### **5.2.2.3 Alternative ALD-2D**

Alternative ALD-2D would require further temporary closures along 33rd Avenue between 188th Street SW and 184th Street SW and would require the temporary relocation of the NB and SB 188th Street SW Swift Orange Line stations.

#### **5.2.2.4 Alternative ALD-2F**

Alternative ALD-2F would require further temporary closures along 33rd Avenue between 188th Street SW and 184th Street SW and would require the temporary relocation of the northbound 188th Street SW Swift Orange Line station.

#### **5.2.2.5 Alderwood Mall Boulevard Design Option**

All Build Alternatives with the Alderwood Mall Boulevard Design Option would require additional temporary closures along Alderwood Mall Boulevard, resulting in more temporary disruptions to transit operations along that street.

## **5.2.3 Ash Way Segment**

### **5.2.3.1 Impacts Common to All Ash Way Segment Alternatives**

All Build Alternatives in the Ash Way Segment would involve a temporary 24/7 closure of a single lane of 164th Street SW as well as an overnight full closure, which would affect transit operations, including the Swift Orange Line.

#### **5.2.3.2 Alternative ASH-1A**

Alternative ASH-1A would require extensive impacts to transit operations at Ash Way Park-and-Ride, including the temporary relocation of the bus loop and bus entrances. This alternative would also require overnight closures of the I-5 ramps that buses use to access I-5 from the park-and-ride, which may require rerouting some late night or early morning bus trips.

#### **5.2.3.3 Alternative ASH-2D**

Alternative ASH-2D would require overnight closures of the NB I-5 on-ramp used by buses to access the park-and-ride, which may require rerouting some late night or early morning bus

trips. This alternative would also require overnight closures of the SB I-5 lanes north and south of 164th Street SW for the construction of the elevated guideway over I-5. This may require rerouting some late night or early morning bus trips.

## **5.2.4 Mariner Segment**

### **5.2.4.1 Impacts Common to All Mariner Segment Alternatives**

All Build Alternatives in the Mariner Segment would require overnight closures of 4th Avenue W between 134th Street SW and 132nd Street SW, which may require rerouting some late night or early morning bus trips.

### **5.2.4.2 Alternative MAR-1B**

Alternative MAR-1B would require the temporary closure of two lanes on the south side of 128th Street SW for the widening and realigning of the roadway, which would impact transit operations along that street and would require temporarily relocating bus stops and the Swift Green Line 4th Avenue and Gibson Road SB stations. This alternative would also require the full closure of Mariner Park-and-Ride for the construction of the aerial guideway.

### **5.2.4.3 Alternative MAR-1B with Surface Parking Design Option**

The construction impacts to transit operations would be the same for Alternative MAR-1B with Surface Parking Design Option as for Alternative MAR-1B. This alternative would also require the full closure of Mariner Park-and-Ride for the construction of the aerial guideway.

### **5.2.4.1 Alternative MAR-2D**

Alternative MAR-2D would require the temporary closure of two lanes on the north side of 128th Street SW for the widening and realigning of the roadway, which would impact transit operations along that street and would require temporarily relocating bus stops and the Swift Green Line Gibson Road NB station. This alternative would also require the full closure of Mariner Park-and-Ride during the construction of the parking structure.

### **5.2.4.2 Alternative MAR-2D with Surface Parking Design Option**

The construction impacts to transit operations would be the same for Alternative MAR-2D with Surface Parking Design Option as for Alternative MAR-2D except with no temporary impacts to Mariner Park-and-Ride.

## **5.2.5 SR 99/Airport Road Segment**

### **5.2.5.1 Impacts Common to All SR 99/Airport Road Build Alternatives**

All Build Alternatives in the SR 99/Airport Road Segment would require temporary 24/7 single-lane closures on 112th Street SW, which may impact transit operations on that street. Both alternatives would require the temporary relocation of the Swift Blue and Green Line stations at SR 99 and Airport Road.

### **5.2.5.2 Alternative AIR-1A**

Alternative AIR-1A would require overnight full closures of 112th Street SW on the east side of Airport Road for guideway construction activities, which may require detouring some night or early morning trips. The construction of the aerial guideway along Airport Road would also require the temporary relocation of the Swift Green Line NB 112th Street station.

### **5.2.5.3 Alternative AIR-2B**

Alternative AIR-2B would require overnight full closures of 112th Street SW on the west side of Airport Road for guideway construction activities. Construction of the elevated guideway crossing over Airport Road between 112th Street SW and Holly Drive would also require overnight full closures of Airport Road, while a long-term 24/7 closure of two travel lanes would also be required for roadway widening and realignment around a future guideway column in the roadway median. These closures would impact transit operations along those streets.

## **5.2.6 SW Everett Industrial Center Segment**

### **5.2.6.1 Impacts Common to All SW Everett Industrial Center Segment Alternatives**

All Build Alternatives in the SW Everett Industrial Center Segment would require overnight closures of two lanes of Airport Road, overnight closures of W Casino Road for the construction of the elevated guideway, and temporary 24/7 closures of a single lane to rebuild the intersection. Transit operations could be impacted along those streets, and some late night or early morning trips on W Casino Road may be rerouted. Bus stops, including the Swift Green Line NB 100th Street and Kasch Park Road stations, would be temporarily relocated. All alternatives would require full overnight closures of Kasch Park Road for construction of the elevated guideway. This may require the construction of a detour road to provide 24/7 access for the Community Transit Kasch Park Base.

### **5.2.6.2 Alternative SWI-1A**

There would be no specific impacts to transit operations under Alternative SWI-1A beyond the impacts common to all Build Alternatives in this segment.

### **5.2.6.3 Alternative SWI-1A with Lower Design Option**

Alternative SWI-1A with Lower Design Option would require temporary closures of W Casino Road between the station area and 18th Avenue W for roadway realignment to accommodate for the lower guideway compared to the higher elevated guideway in Alternative SWI-1A. This would likely impact transit operations along that street.

### **5.2.6.4 Alternative SWI-1B**

In addition to the impacts common to all Build Alternatives, Alternative SWI-1B would likely require the temporary relocation of the Swift Green Line SB Kasch Park Road station.

### **5.2.6.5 Alternative SWI-1C**

There would be no specific impacts to transit operations under Alternative SWI-1C beyond the impacts common to all Build Alternatives in this segment.

## **5.2.7 SR 526/Evergreen Segment**

### **5.2.7.1 Impacts Common to All SR 526/Evergreen Segment Alternatives**

All Build Alternatives in the SR 526/Evergreen Segment would require temporary 24/7 closure of two travel lanes on Evergreen Way and Casino Road for utility work and roadway reconstruction. This would likely impact transit operations along those roads and would require the temporary relocation of bus stops.

### **5.2.7.2 Alternative EGN-1A**

Under Alternative EGN-1A, overnight full closures would be required on the SR 526 mainline, the WB SR 526 ramp to NB Seaway Boulevard, and the SB Seaway Boulevard ramp to EB SR 526 for construction of the elevated guideway span across the SR 526/Seaway Boulevard interchange. These closures may require rerouting some early morning bus trips. There would also be a temporary 24/7 full closure of Evergreen Way north of SR 526 to facilitate the construction of the lowered guideway in a cut-and-cover trench. This would require detouring the Swift Blue Line onto Casino Road for the duration of the closure. On the east end of the segment, an overnight full closure of E Casino Road north of SR 526 would be required for guideway construction, which may require rerouting some late night or early morning bus trips.

### **5.2.7.1 Alternative EGN-2B**

Under Alternative EGN-2B, overnight full closures would be required on Evergreen Way south of SR 526 to facilitate the construction of the elevated guideway. Overnight full closures of Casino Road E and SR 526 east of Evergreen would also be required for the construction of the elevated guideway crossing of SR 526 at this location. These closures may require rerouting some late night or early morning bus trips. This alternative would also require temporarily relocating bus stops along Casino Road and Evergreen Way, including the Swift Blue Line Casino Road stations.

### **5.2.7.2 Alternative EGN-2B with North Side of SR 526 Design Option**

Alternative EGN-2B with North Side of SR 526 Design Option would have the same transit impacts as Alternative EGN-2B.

### **5.2.7.3 Alternative EGN-3E**

Under Alternative EGN-3E, overnight full closures would be required on Evergreen Way south of SR 526 to facilitate the construction of the elevated guideway. Overnight full closures of E Casino Road would be required for the construction of the elevated guideway crossing of SR 526 at this location. Overnight full closures of W Casino Road and E Casino Road would also be required for guideway construction. These closures may require rerouting some late night or early morning bus trips. This alternative would also require bus stops along Casino Road and Evergreen Way, including the Swift Blue Line Casino Road stations, to be temporarily relocated.

### **5.2.7.4 Alternative EGN-3E with North Side of SR 526 Design Option**

Alternative EGN-3E Build Alternative with North Side of SR 526 Design Option would have the same transit impacts as Alternative EGN-3E.



## **5.2.8 Broadway/I-5 Segment**

### **5.2.8.1 Alternative BI-1**

Alternative BI-1 would require full overnight closures of Broadway and Lowell Road near the intersection of those two roads, which may require rerouting some late night or early morning bus trips.

### **5.2.8.2 Alternative BI-2**

Alternative BI-2 would require full overnight closures of Broadway along the entire route for construction staging, which may require rerouting some late night or early morning bus trips.

## **5.2.9 Everett Station Segment**

### **5.2.9.1 Impacts Common to All Everett Station Segment Alternatives**

All Build Alternatives in the Everett Station Segment would require full overnight closures of Broadway and the I-5 ramps to Broadway, which may require rerouting some late night or early morning bus trips.

### **5.2.9.2 Alternative EVT-1A**

Alternative EVT-1A would require temporary relocation of transit facilities at Everett Station and the relocation of entrances and rerouting of bus trips in the surrounding area. Overnight closures of several streets around Everett Station including Smith Avenue and 33rd Street, as well as 24/7 closures of 33rd Street, and a 24/7 closure of one lane of Smith Avenue would also be required. Local buses using 33rd Street would have to be detoured onto surrounding streets for the duration of the closure.

### **5.2.9.3 Alternative EVT-2C**

Alternative EVT-2C would require overnight closures of 33rd Street and Pacific Avenue for guideway construction and road reconstruction. These closures may require rerouting some late night or early morning bus trips. This alternative would also require the full 24/7 closure of 33rd Street and McDougall Avenue while those roads are rebuilt. Local buses using those roads would be detoured onto surrounding streets for the duration of that construction period.

### **5.2.9.4 Alternative EVT-3D**

Alternative EVT-3D would require overnight closures of Pacific Avenue and Hewitt Avenue, which may require rerouting some late night or early morning bus trips. Rebuilding Broadway in the station area would also require a temporary 24/7 closure of a single lane near the station, which may impact transit operations and require the temporary relocation of bus stops.

## **5.2.10 OMF North Site Alternatives**

### **5.2.10.1 OMF Site F (SR 99)**

OMF Site F would require full overnight closures of Airport Road to install the elevated guideway sections over the road. This may require rerouting some late night or early morning bus trips.

### **5.2.10.2 OMF Site F with Lead Tracks to the West Side of Airport Road Design Option**

OMF Site F with Lead Tracks to the West Side of Airport Road Design Option would require full overnight closures of Airport Road for the construction of elevated guideway sections. This may require rerouting some late night or early morning bus trips.

### **5.2.10.3 OMF Site E (Airport Road)**

There would be no temporary local road closures associated with OMF Site E and, therefore, no temporary impacts to transit operations.

### **5.2.10.4 OMF Site B (SR 526)**

There would be no temporary local road closures associated with OMF Site B and, therefore, no temporary impacts to transit operations.

### **5.2.10.5 OMF Site B with Lead Tracks to South Side of SR 526 Design Option**

There would be no temporary local road closures associated with OMF Site B and, therefore, no temporary impacts to transit operations.

## **5.3 Arterials and Local Streets**

### **5.3.1 Impacts Common to All Build Alternatives**

With each of the Build Alternatives, construction would require local road closures, lane closures, traffic detours, and property access modifications and closures to maintain traffic flow. Streets that would be beneath the guideway would require temporary full and/or partial closures to construct the guideway and other associated features. If driveway closures are required, access to these properties would be maintained to the extent practical, typically with flaggers to direct traffic. If access to a business could not be maintained during construction, the specific construction activity would be conducted during non-business hours where feasible.

The peak number of truck trips is expected to occur during earthwork operations and during concrete delivery for both guideway and station construction. For the elevated guideway construction, peak truck trips were estimated at 10 to 15 trucks per hour during peak activity. This would occur for approximately two years for each area of construction. A similar level of truck activity is expected for earthwork activities, but this would be focused on trucks hauling material during excavation and would not overlap with concrete delivery trucks.

Construction truck traffic would use truck routes and, where required, local roadways to access the construction areas. Delivery of large items, such as precast girders, would occur via truck routes during nighttime hours. There would be limited direct access via the I-5 mainline, although trucks may use I-5 for trips to and from other locations in the region. For these trips, access would be from existing interchange ramps, WSDOT facilities, or even I-5, pending coordination with and approval from WSDOT and FHWA. Some of the staging areas along the guideway would allow I-5 access in controlled areas that would require approval from and coordination with WSDOT and FHWA. During construction there may be some short-term closures (night/weekend) to on- and off-ramps to accommodate installing girders over ramps. As the design and construction plans are advanced, there could be the need for direct access between I-5 and construction areas. If direct access is required, Sound Transit would coordinate

with WSDOT and FHWA. Specific local street impacts from each alternative are described in the following sections.

Construction staging areas would be located within the project's construction limits shown in Draft EIS Appendix F. The staging areas will be refined as project design advances.

### **5.3.2 West Alderwood Segment**

#### **5.3.2.1 Impacts Common to All West Alderwood Segment Alternatives**

All Build Alternatives in the West Alderwood Segment would experience a long-term daytime single-lane closure on 33rd Avenue W from Alderwood Mall Boulevard to 188th Street SW for sidewalk reconstruction and day-to-day activities. Some periods of 24/7 closure of one lane may be required during the sidewalk reconstruction along 33rd Avenue W, as well as night and weekend closures of two lanes for guideway construction activities. Property access and potential internal traffic circulation of private business parking lots would be maintained but may be affected during these lane closures.

The intersection of Alderwood Mall Boulevard and 33rd Avenue W would experience some short-term nightly full closures for guideway construction. Some short-term 24/7 lane reductions would also occur at this intersection to facilitate shaft construction. These closures and reductions may affect traffic circulation and property access in the vicinity of the intersection.

One WB lane of 200th Street SW from 44th Avenue W to 40th Avenue W would be closed 24/7 for a moderate duration of time to facilitate roadway widening along this portion of roadway. This segment would also experience short-term night-time closure of two lanes for guideway construction, as well as short-term 24/7 closures of two lanes for shaft construction. These construction activities may affect local property access for private businesses on the north side of 200th Street W.

For a moderate period during the construction process, night-only full closures would occur on the SB I-5 off ramp to EB 196th Street SW for ramp realignment grading and paving. Other short-term full closures would occur on Alderwood Mall Parkway, the SB I-5 off-ramp to WB 196th Street SW, and the SB I-5 on ramp from 196th Street SW. These closures would generally occur overnight but could include some daytime closures as well. Each of these full closures would affect traffic circulation on the nights that they are in place to facilitate guideway construction activities. Additionally, on the SB I-5 on- and off-ramps to and from 196th Street SW, shaft construction and location of the construction work zone entry points would require 24/7 reduction to a single lane for a short to moderate period of time.

#### **5.3.2.2 Alternative ALD-1B**

Alternative ALD-1B would not have additional impacts to arterial and local street operations beyond those mentioned for all Build Alternatives in this segment.

#### **5.3.2.3 Alternative ALD-1B with Alderwood Mall Boulevard Design Option**

The Alderwood Mall Boulevard Design Option would shift the expected guideway construction work zone along I-5 to be alongside Alderwood Mall Boulevard between the SB I-5 on-ramp from 196th Street SW and 33rd Avenue W. With this design option, short-term night-only full closures would be required for falsework installation and removal on 196th Street SW, Alderwood Mall Boulevard, and the SB I-5 on- and off-ramps at 196th Street SW. These

closures would occur in the area between 36th Avenue W and I-5 along 196th Street SW, affecting traffic circulation and access to the private businesses at the 36th Avenue W/196th Street SW intersection.

For a moderate duration, guideway construction along Alderwood Mall Boulevard from 196th Street SW to 33rd Avenue W would require the 24/7 closure of a single lane. The intersection of Alderwood Mall Boulevard and 33rd Avenue W would also experience lane reductions so that shaft construction could be completed. These closures would potentially impact local property access to two parking lots on the north side of Alderwood Mall Boulevard.

All other impacts along 200th Street SW and 33rd Avenue W under Alternative ALD-1B with Alderwood Mall Boulevard Design Option would be as described in the section on impacts common to all Build Alternatives in this segment.

#### **5.3.2.4 Alternative ALD-2D**

Alternative ALD-2D would require a long-term, 24/7 closure of a single lane along 184th Street SW between 33rd Avenue W and Beech Road, as well as along 33rd Avenue W between 188th Street SW and 184th Street SW, for day-to-day construction activities and sidewalk and driveway reconstruction. On a select number of nights and weekends, there would also be a two-lane closure on this same stretch of roadway for guideway construction activities. These closures may affect traffic circulation and local property access, particularly for businesses on the north side of 184th Street SW. There would also be potential changes to internal traffic circulation in the Alderwood Mall parking lots, particularly in the north, east, and south lots that would not be occupied by construction staging.

#### **5.3.2.5 Alternative ALD-2D with Alderwood Mall Boulevard Design Option**

The impacts under Alternative ALD-2D with Alderwood Mall Boulevard Design Option along Alderwood Mall Boulevard between 200th Street SW and 33rd Avenue W would be the same as described for Alternative ALD-1B with Alderwood Mall Boulevard Design Option.

Changes west of 40th Avenue W or east of 33rd Avenue W would be the same as those described in the section on impacts common to all Build Alternatives and for Alternative ALD-2D.

#### **5.3.2.6 Alternative ALD-2F**

The construction road closures for Alternative ALD-2F would be the same as for Alternative ALD-2D, apart from the potential changes to internal traffic circulation in the Alderwood Mall parking lots being expected instead in the east, south, and west lots that would not be occupied by construction staging.

#### **5.3.2.7 Alternative ALD-2F with Alderwood Mall Boulevard Design Option**

The impacts under Alternative ALD-2F with Alderwood Mall Boulevard Design Option along Alderwood Mall Boulevard between 200th Street SW and 33rd Avenue W would be the same as described for Alternative ALD-1B with Alderwood Mall Boulevard Design Option.

Changes west of 40th Avenue W or east of 33rd Avenue W would be the same as those described in the section on impacts common to all Build Alternatives and for Alternative ALD-2F.

### 5.3.3 Ash Way Segment

#### 5.3.3.1 Impacts Common to All Ash Way Segment Alternatives

In the Ash Way Segment, only short-term closures would be required for construction activities for both Build Alternatives. For both alternatives, full night-only closures would be required at 164th Street SW by the I-5 interchange and Maple Road by the I-5/I-405 interchange for the construction of the elevated guideway. There may be changes to traffic circulation in these areas due to the full closure at nighttime, but no local properties would be expected to have access changes. There would also be a 24/7 single lane closure of 164th Street SW at the I-5 interchange area to provide working space for a construction crane, though through-travel would be maintained.

#### 5.3.3.2 Alternative ASH-1A

In order to facilitate the construction of the elevated guideway under Alternative ASH-1A along the west side of I-5 at the 164th Street SW interchange, there would be short-term night-only full closures of the SB I-5 on- and off-ramps at 164th Street SW. During these closures, traffic accessing SB I-5 would require re-routing to 128th Street SW or I-405/SR 525. No changes to local property access are anticipated under these on- and off-ramp closures.

#### 5.3.3.3 Alternative ASH-2D

Under Alternative ASH-2D, construction of the elevated guideway along the east side of I-5 at the 164th Street SW interchange would require short-term night-only full closures of the NB I-5 on- and off-ramps at 164th Street SW. During these closures, traffic accessing NB I-5 would require re-routing to 128th Street SW or I-405/SR 525. No changes to local property access are anticipated under these on- and off-ramp closures.

### 5.3.4 Mariner Segment

#### 5.3.4.1 Impacts Common to All Mariner Segment Alternatives

In the Mariner Segment, there would be several closures anticipated for elevated guideway construction activities, sidewalk rebuilds, and intersection rebuilds across all Build Alternatives. Short-term night-only full closures of 4th Avenue W between 134th Street SW and 132nd Street SW, east and west sides of Admiralty Way at the intersection with Airport Road, and Airport Road near Admiralty Way would be required for elevated guideway construction to span these roadways. Guideway construction would also require long-term 24/7 closure of the sidewalk along Airport Way/128th Street SW and long-term night-only closures of two lanes on the same corridor for the installation of the guideway along one side of the roadway (on the south side for Alternative MAR-1B and on the north side for Alternative MAR-2D). The two-lane closure of Airport Road would be a long-term 24/7 closure instead of night-only in the vicinity of Admiralty Way for the roadway to be widened and realigned around a guideway column. There would also be a moderate-term 24/7 single-lane closure on Admiralty Way by Airport Road for sidewalk and signal work to be completed. Two further intersections of Airport Road, with 8th Avenue W and Gibson Road, would also require moderate-term 24/7 single-lane closures for intersection rebuilds.

There would be some changes to traffic circulation and local property access due to these closures, particularly during night-only full closures when through-access would not be



maintained. Traffic may potentially be re-routed to avoid full closures by using Ash Way and 132nd Street SW to the south or 124th Street SW to the north. There would be no property access changes along Airport Road/128th Street SW, though the closures along 4th Avenue W may affect business parking lot access at nighttime only.

#### **5.3.4.2 Alternative MAR-1B**

Under Alternative MAR-1B, 8th Avenue W and Gibson Road adjacent to the south side of Airport Road would require short-term night-only full closures for elevated guideway construction activities. Impacts to traffic circulation would be minimized due to the closure occurring only at night. Local property access would be maintained along both roads, either by direct driveway access or by internal circulation within private business parking lots.

#### **5.3.4.3 Alternative MAR-1B with Surface Parking Design Option**

The construction impacts to arterial and local street operations under Alternative MAR-1B with Surface Parking Design Option would be the same as for Alternative MAR-1B.

#### **5.3.4.4 Alternative MAR-2D**

Alternative MAR-2D would require short-term night-only full closures of 8th Avenue W and Gibson Road adjacent to the north side of Airport Road for elevated guideway construction activities. This Build Alternative would also require short-term night-only closures of one lane in each direction on 128th Street SW near 5th Avenue W guideway construction. Additionally, this same segment of roadway would require long-term 24/7 closures of two full lanes for roadway widening and realignment and for utilities work. Impacts to traffic circulation would be minimized due to the closures occurring at night or by maintaining limited through-travel. Local property access would also be maintained either by direct driveway access or by internal circulation within private business parking lots.

#### **5.3.4.5 Alternative MAR-2D with Surface Parking Design Option**

The construction impacts to arterial and local street operations under Alternative MAR-2D with Surface Parking Design Option would be the same as for Alternative MAR-2D.

### **5.3.5 SR 99/Airport Road Segment**

#### **5.3.5.1 Impacts Common to All SR 99/Airport Road Segment Alternatives**

All Build Alternatives in the SR 99/Airport Road Segment would require short-term night-only full closures of Holly Drive by Airport Road for the construction of the elevated guideway above this intersection. Rebuilds of the intersection and signals would also require moderate-term 24/7 single-lane closures on 112th Street SW and Holly Drive by Airport Road. While the full closure may impact traffic circulation on local streets, the single-lane closures would maintain through-traffic.

#### **5.3.5.2 Alternative AIR-1A**

Alternative AIR-1A would require short-term night-only full closures of SR 99 and 112th Street SW on the east side of Airport Road for guideway construction activities. Traffic circulation on local streets may be impacted by these closures at night; the SR 99 closure may divert traffic towards other arterial roads in the vicinity.

### **5.3.5.3 Alternative AIR-2B**

Alternative AIR-2B would require short-term night-only full closures of 112th Street SW on the west side of Airport Road for guideway construction activities. Construction of the elevated guideway crossing over Airport Road between 112th Street SW and Holly Drive would also require short-term night-only full closures of Airport Road, while a long-term 24/7 closure of two travel lanes is also required for roadway widening and realignment around a future guideway column in the roadway median. Traffic circulation on local streets may be impacted by these closures at night.

### **5.3.6 SW Everett Industrial Center Segment**

#### **5.3.6.1 Impacts Common to All SW Everett Industrial Center Segment Alternatives**

All Build Alternatives in the SW Everett Industrial Center Segment would require closures at various points for the construction of the elevated guideway along Airport Road. Short-term night-only full closures to facilitate guideway construction over roadways are required at 100th Street SW, Kasch Park Road, and W Casino Road east of their intersections with Airport Road. Since Kasch Park Road dead-ends at Kasch Park, construction of a detour road to provide 24/7 access for businesses may be required. These three intersections would also experience moderate-duration 24/7 single lane closures for intersection and signal rebuilds.

Guideway construction along Airport Road would require moderate-duration night-only closure of two lanes on Airport Road. These closures would be accompanied by long-term 24/7 closures of the sidewalk on the east side of Airport Road.

The full night-only closures would cause some traffic circulation impacts in the segment. Some internal circulation and property access impacts may also occur in private parking lots along the east side of Airport Road and north side of W Casino Road during construction.

#### **5.3.6.2 Alternative SWI-1A**

There would be no specific impacts to arterial and local street operations under Alternative SWI-1A outside of the impacts common to all Build Alternatives in this segment.

#### **5.3.6.3 Alternative SWI-1A with Lower Design Option**

Alternative SWI-1A with Lower Design Option would require intermittent closures of W Casino Road between the station area and 18th Avenue W for roadway realignment to accommodate for the lower guideway compared to the higher elevated guideway under Alternative SWI-1A.

#### **5.3.6.4 Alternative SWI-1B**

There would be no specific impacts to arterial and local street operations under Alternative SWI-1B outside of the impacts common to all Build Alternatives in this segment.

#### **5.3.6.5 Alternative SWI-1C**

Alternative SWI-1C would require the temporary closure of 29th Avenue W and 27th Street W to realign both roads. Traffic using the undercrossing would be detoured to 94th Street SW.

### **5.3.7 SR 526/Evergreen Segment**

#### **5.3.7.1 Impacts Common to All SR 526/Evergreen Segment Alternatives**

All Build Alternatives in the SR 526/Evergreen Segment would require utility work, roadway reconstruction, and paving work along Evergreen Way in the vicinity of the SR 526/Evergreen Way interchange and along Casino Road immediately north of SR 526. This work would require the moderate-term 24/7 closure of two travel lanes on each of these roadways. Construction of the elevated guideway over 5th Avenue W on the north side of SR 526 would require short-term night-only full closures of 5th Avenue W for all Build Alternatives in this segment. The full closure would potentially cause traffic to re-route to either Evergreen Way or Seaway Boulevard and Airport Road to cross SR 526.

#### **5.3.7.2 Alternative EGN-1A**

Under Alternative EGN-1A, short-term night-only full closures would be required on the WB SR 526 ramp to NB Seaway Boulevard, and the SB Seaway Boulevard ramp to EB SR 526 for construction of the elevated guideway span across the SR 526/Seaway Boulevard interchange. There would also be a short-term 24/7 full closure of Evergreen Way north of SR 526 to facilitate the construction of the lowered guideway in a cut and cover trench. On the east end of the segment, a short-term night-only full closure of E Casino Road north of SR 526 would be required for guideway construction. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.7.3 Alternative EGN-2B**

Under Alternative EGN-2B, short-term night-only full closures would be required on Evergreen Way south of SR 526 to facilitate the construction of the elevated guideway. Short-term night-only full closures of E Casino Road north of SR 526 would be required for guideway construction. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.7.4 Alternative EGN-2B with North Side of SR 526 Design Option**

Alternative EGN-2B with North Side of SR 526 Design Option would require short-term night-only full closures on the SR 526 mainline, the WB SR 526 ramp to NB Seaway Boulevard, and the SB Seaway Boulevard ramp to EB SR 526 for construction of the elevated guideway span across the SR 526/Seaway Boulevard interchange. Moderate-term night-only full closures of SR 526 west of Evergreen Way would also be required for construction of the elevated guideway span across SR 526. All other closures for Alternative EGN-2B would also be applicable to this design option. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.7.5 Alternative EGN-3E**

Under Alternative EGN-3E, short-term night-only full closures would be required on Evergreen Way south of SR 526 to facilitate the construction of the elevated guideway. Moderate-term night-only full closures of SR 526 east of Evergreen Way would be required for the construction of the elevated guideway crossing of SR 526 at this location. Short-term night-only full closures of W Casino Road and E Casino Road would be required for guideway construction. Local

street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.7.6 Alternative EGN-3E with North Side of SR 526 Design Option**

Alternative EGN-3E with North Side of SR 526 Design Option would require short-term night-only full closures on the SR 526 mainline, the WB SR 526 ramp to NB Seaway Boulevard, and the SB Seaway Boulevard ramp to EB SR 526 for construction of the elevated guideway span across the SR 526/Seaway Boulevard interchange. Moderate-term night-only full closures of SR 526 west of Evergreen Way would also be required for construction of the elevated guideway span across SR 526. All other closures for Alternative EGN-3E would also be applicable to this design option. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

### **5.3.8 Broadway/I-5 Segment**

#### **5.3.8.1 Impacts Common to All Broadway/I-5 Segment Alternatives**

There are no arterial and local street operation impacts common to all Build Alternatives in the Broadway/I-5 Segment.

#### **5.3.8.2 Alternative BI-1**

Alternative BI-1 would require short-term night-only full closures of Lowell Road and Broadway in the immediate vicinity of the Broadway/Lowell Road intersection due to guideway construction activities. There would also be a moderate-duration 24/7 single-lane closure at this intersection for rebuilding the intersection and signals. These closures would impact local traffic circulation, with traffic potentially diverted to 41st Street.

#### **5.3.8.3 Alternative BI-2**

Alternative BI-2 would require moderate-term night-only full closures of Broadway along the entire corridor for guideway construction. Other short-term night-only full closures would occur on Madison Avenue, Lowell Road, and Broadway south of Lowell Road for elevated guideway construction activities, and on Beverly Boulevard for construction of the cut and cover portion of the guideway. Intersection rebuilds at the Beverly Boulevard, Madison Avenue, and Lowell Road intersections with Broadway would also require moderate-term 24/7 single-lane closures. Impacts to traffic circulation on local streets would be anticipated along the entire corridor due to the nighttime closures.

### **5.3.9 Everett Station Segment**

#### **5.3.9.1 Impacts Common to All Everett Station Segment Alternatives**

Guideway construction activities for the portion of the alignment common to all Build Alternatives in this segment would impact street operations along Broadway between the south end of the segment to 41st Street. Short-term night-only full closures would be required on Broadway, SB I-5 on-ramps from Broadway and 41st Street, the NB I-5 off-ramp to Broadway, and 41st Avenue by Broadway for the construction of the elevated guideway. A moderate-duration 24/7 single-lane closure on Broadway would be required for rebuilding and widening of the roadway. During the full closures, traffic accessing southbound I-5 may be required to divert

to the Pacific Avenue interchange; NB I-5 traffic accessing Broadway may use the exit to 41st Street. Closures of Broadway may lead to re-routed traffic on Colby Avenue or Rucker Avenue/Evergreen Way.

#### **5.3.9.2 Alternative EVT-1A**

Under Alternative EVT-1A, short-term night-only full closures of Smith Avenue, 33rd Street, and 32nd Street are required for construction of the elevated guideway. Moderate-term 24/7 full closures would be required on 33rd Street and 32nd Street, and a moderate-term 24/7 closure of one travel and one parking lane on Smith Avenue would be required for the roadway to be rebuilt near the station site. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.9.3 Alternative EVT-2C**

Under Alternative EVT-2C, guideway construction activities would require the short-term night-only full closure of McDougall Avenue, 33rd Street, 32nd Street, and Pacific Avenue. Guideway construction would also require short-term 24/7 closures of one travel lane and one parking lane on McDougall Avenue. There would also be a rebuild of the roadway near the station site on McDougall Avenue, 33rd Street, and 32nd Street that would require moderate-term 24/7 closures of these roads. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

#### **5.3.9.4 Alternative EVT-3D**

Under Alternative EVT-3D, short-term night-only full closures would occur on Pacific Avenue, Wall Street, and Hewitt Avenue for guideway construction activities. The rebuild of the roadway in the station area would also require moderate-term 24/7 closures of one lane and the sidewalk on Broadway near the station, and a full closure of Wall Street. Local street operations would be impacted by the full closures as local traffic would recirculate on adjacent streets.

### **5.3.10 OMF North Site Alternatives**

#### **5.3.10.1 OMF Site F (SR 99)**

OMF Site F would require full overnight closures of Airport Road to install the elevated guideway sections over the road.

#### **5.3.10.2 OMF Site F with Lead Tracks to the West Side of Airport Road Design Option**

OMF Site F with Lead Tracks to the West Side of Airport Road Design Option would require full overnight closures of Airport Road and SR 99 for the construction of elevated guideway sections.

#### **5.3.10.3 OMF Site E (Airport Road)**

There would be no temporary road closures associated with OMF Site E and, therefore, no construction phase impacts to arterial and local street operations.



#### **5.3.10.4 OMF Site B (SR 526)**

There would be no temporary road closures associated with OMF Site B and, therefore, no construction phase impacts to arterial and local street operations.

#### **5.3.10.5 OMF Site B with Lead Tracks to South Side of SR 526 Design Option**

OMF Site B with Lead Tracks to South Side of SR 526 Design Option would require overnight closures of SR 526 to construct the long span bridges over the road.

### **5.4 Parking**

This analysis identified potential temporary parking impacts during construction with each Build Alternative, as well as the potential for construction workers to park near the construction areas. The temporary parking impacts would be in addition to permanent parking losses described in the operational impacts section above (Section 4.4) or parking lost through property acquisition.

#### **5.4.1 Impacts Common to All Build Alternatives**

Sound Transit expects that construction employee vehicles would be limited only to the number that could park within the construction staging areas. Construction workers could also park on local streets and arterials where parking is unrestricted. Construction worker parking near designated construction staging areas could affect the nearby parking supply during heavy construction periods.

#### **5.4.2 West Alderwood Segment**

With no public parking in this segment, there would be no construction impacts to publicly available parking here.

#### **5.4.3 Ash Way Segment**

There would be no temporary construction impacts to publicly available parking in the Ash Way Segment beyond those described in Section 4.4.

#### **5.4.4 Mariner Segment**

##### **5.4.4.1 Alternative MAR-1B**

Alternative MAR-1B would temporarily displace all of the currently existing 653 spaces at Mariner Park-and-Ride. Temporary parking may be identified as discussed in Section 6.2.2.

##### **5.4.4.2 Alternative MAR-1B with Surface Parking Design Option**

Alternative MAR-1B with Surface Parking Design Option would temporarily displace all of the parking at Mariner Park-and-Ride. Temporary parking may be identified as discussed in Section 6.2.2

#### **5.4.4.3 Alternative MAR-2D**

Alternative MAR-2D would temporarily displace approximately 490 parking spaces at the Mariner Park-and-Ride. This represents about 75% of the available parking spaces; however, considering the peak utilization rate of Mariner Park-and-Ride was only 15% in 2023, this would likely not have an impact on parking availability in the area. Snohomish County's new 130th Street project, which is planned to be completed before the EVLE Project, will reconfigure the park-and-ride and may change the EVLE Project's impact on the facility.

#### **5.4.4.4 Alternative MAR-2D with Surface Parking Design Option**

There would be no temporary construction impacts to publicly available parking in the Mariner Segment beyond those described in Section 4.4.

#### **5.4.5 SR 99/Airport Road Segment**

There are no public parking lots or structures in the study area and neither of the Build Alternatives in the SR 99/Airport Road Segment would remove on-street parking.

#### **5.4.6 SW Everett Industrial Center Segment**

There are no on-street parking spaces or off-street public parking lots or structures in the SW Everett Industrial Center Segment study area. Therefore, no public parking would be removed by the Build Alternatives in this segment.

#### **5.4.7 SR 526/Evergreen Segment**

There would be no temporary construction impacts to publicly available parking in the SR 526/Evergreen Segment beyond those described in Section 4.4.

#### **5.4.8 Broadway/I-5 Segment**

There would be no temporary construction impacts to publicly available parking in the Broadway/I-5 Segment beyond those described in Section 4.4.

#### **5.4.9 Everett Station Segment**

##### **5.4.9.1 Alternative EVT-1A**

Construction of Alternative EVT-1A would require the temporary 24/7 closure of one travel lane and one parking lane on Smith Avenue to rebuild the roadway near the proposed station site. Temporary full closures of 32nd and 33rd Streets would also be necessary, temporarily displacing 26 parking spaces. Since the parking utilization in the station area is only 43.6%, this would likely not have an impact on parking availability in the area.

##### **5.4.9.2 Alternative EVT-2C**

Elevated guideway construction activities for Alternative EVT-2C would require short-term 24/7 closures of one travel lane and one parking lane on McDougall Avenue. Temporary full closures

of 32nd and 33rd streets near the proposed station would also be necessary temporarily displacing 76 parking spaces. Since the parking utilization in the station area is less than 50%, this would likely not have an impact on parking availability in the area.

#### 5.4.9.3 Alternative EVT-3D

Construction of Alternative EVT-3D would require the temporary 24/7 closure of one lane and the parking along Broadway and the temporary closure of Wall Street near the proposed station temporarily displacing 83 parking spaces. Since the parking utilization in the station area is only 43.6%, this would likely not have an impact on parking availability in the area.

#### 5.4.10 OMF North Site Alternatives

There would be no construction impacts to publicly available parking for any of the OMF North site alternatives. Impacts to private properties, which would include private parking where it exists, is documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].

### 5.5 Non-Motorized Facilities

When non-motorized facilities such as sidewalks and bicycle lanes must be temporarily closed for construction, Sound Transit would provide clearly marked detours within construction areas, such as dedicated walkways and alternate bicycle routes that may include treatments such as pedestrian and bicycle signals, signal optimization including leading pedestrian intervals, crosswalks, curb bulbs, rectangular rapid flashing beacons, pavement markings, and temporary signals. Where possible, temporary facilities would be designed to applicable design standards or at a minimum would comply with ADA requirements.

When maintaining the facility would not be feasible, Sound Transit would work with the City of Lynnwood, Snohomish County, and/or the City of Everett to develop and implement a construction management plan to provide alternate facilities for non-motorized travel that, to the extent feasible, offer a similar level of protection and comfort to the temporarily closed facility.

#### 5.5.1 Impacts Common to All Build Alternatives

All Build Alternatives would temporarily close sidewalks and/or bicycle facilities or reduce sidewalk widths within construction areas. Some roads would have multiple closures over the construction period. Section 5.5.1 through 5.5.10 summarize the proposed non-motorized facility closures that would be most impactful to users during the construction period. For Table 5-1 to Table 5-8, durations are defined as:

- **Short:** closure less than 1 month.
- **Moderate:** closure between 1 and 4 months.
- **Long:** closure greater than 4 months.

### 5.5.2 West Alderwood Segment

All Build Alternatives in the West Alderwood Segment would require the construction of an elevated guideway that crosses over the Interurban Trail in three places: near the intersections of Alderwood Mall Boulevard and 40th Avenue W, Alderwood Mall Boulevard and 33rd Avenue W, and 184th Street SW and Beech Road. Additionally, the guideway for the Build Alternatives that include the Alderwood Mall Boulevard Design Option would run elevated directly above the Interurban Trail between 40th Avenue W and 196th Street SW. The Build Alternatives that do not include the Alderwood Mall Boulevard Design Option would include a hi-rail access point over the Interurban Trail. Both designs would require the Interurban Trail to be relocated directly north of its current position, between the guideway and Alderwood Mall Boulevard. In all cases, the Interurban Trail would be detoured during construction as needed to maintain access for trail users.

Additional proposed non-motorized facility construction closures for the West Alderwood Segment are summarized in Table 5-1.

**Table 5-1 Proposed Non-Motorized Facility Construction Closures – West Alderwood Segment**

| Alternative          | Roadway                                             | Closure Type          | Duration |
|----------------------|-----------------------------------------------------|-----------------------|----------|
| All ALD alternatives | 33rd Avenue W                                       | Sidewalks on one side | Long     |
| All ALD alternatives | 200th Street SW from 44th Avenue W to 40th Avenue W | Sidewalks on one side | Moderate |
| All ALD alternatives | Alderwood Mall Boulevard                            | Sidewalks on one side | Short    |
| ALD-2D and ALD-2F    | 184th Street SW                                     | Sidewalks on one side | Short    |

### 5.5.3 Ash Way Segment

Alternatives ASH-1A and ASH-2D would construct an elevated guideway that crosses over the Interurban Trail on Maple Road adjacent to I-5 but would avoid placement of guideway columns on the trail and would not interfere with its use or maintenance.

Where Alternative ASH-2D crosses to the east side of I-5, the elevated guideway would again cross over the Interurban Trail. In addition, the at-grade portion of Alternative ASH-2D would cross directly over the Interurban Trail just north of 140th Street SW. This would require the Interurban Trail to be relocated to remain on the eastern side of the at-grade guideway until it transitions to an aerial guideway. At that point, the trail would cross underneath the guideway and continue running north parallel to I-5 before crossing underneath the elevated guideway of Alternative ASH-2D again. The Interurban Trail would be detoured during construction as needed to maintain access for trail users.

Additional proposed non-motorized facility construction closures for the Ash Way Segment are summarized in Table 5-2.

**Table 5-2 Proposed Non-Motorized Facility Construction Closures – Ash Way Segment**

| Alternative           | Roadway         | Closure Type             | Duration |
|-----------------------|-----------------|--------------------------|----------|
| Both ASH alternatives | 164th Street SW | Sidewalks on both sides  | Short    |
| Both ASH alternatives | Maple Road      | Bike lanes on both sides | Short    |

#### 5.5.4 Mariner Segment

The proposed non-motorized facility construction closures for the Mariner Segment are summarized in Table 5-3.

**Table 5-3 Proposed Non-Motorized Facility Construction Closures – Mariner Segment**

| Alternative          | Roadway                      | Closure Type            | Duration |
|----------------------|------------------------------|-------------------------|----------|
| All MAR alternatives | 4th Avenue W/134th Street SW | Sidewalks on both sides | Short    |
| All MAR alternatives | Gibson Road                  | Sidewalk on one side    | Moderate |
| All MAR alternatives | Admiralty Way                | Sidewalk on one side    | Moderate |
| All MAR alternatives | 128th Street SW/Airport Road | Sidewalks on both sides | Long     |
| All MAR alternatives | 8th Avenue W                 | Sidewalk on one side    | Moderate |

#### 5.5.5 SR 99/Airport Rd Segment

The proposed non-motorized facility construction closures for the SR 99/Airport Road Segment are summarized in Table 5-4.

**Table 5-4 Proposed Non-Motorized Facility Construction Closures – SR 99/Airport Road Segment**

| Alternative           | Roadway         | Closure Type                         | Duration |
|-----------------------|-----------------|--------------------------------------|----------|
| Both AIR alternatives | 112th Street SW | Sidewalks and bike lanes on one side | Moderate |
| Both AIR alternatives | Holly Drive     | Sidewalks and bike lanes on one side | Moderate |
| Both AIR alternatives | SR 99           | Sidewalks on both sides              | Short    |

#### 5.5.6 SW Everett Industrial Center Segment

The proposed non-motorized facility construction closures for the SW Everett Industrial Center Segment are summarized in Table 5-5.



**Table 5-5 Proposed Non-Motorized Facility Construction Closures – SW Everett Industrial Center Segment**

| Alternative          | Roadway         | Closure Type                           | Duration |
|----------------------|-----------------|----------------------------------------|----------|
| All SWI alternatives | 100th Street SW | Sidewalk on one side                   | Moderate |
| All SWI alternatives | Kasch Park Road | Sidewalks on both sides                | Moderate |
| All SWI alternatives | W Casino Road   | Sidewalks and bike lanes on one side   | Moderate |
| All SWI alternatives | Airport Road    | Sidewalks and bike lanes on both sides | Long     |

**5.5.7 SR 526/Evergreen Way Segment**

All Build Alternatives in this segment would require reconstruction of a section of the Interurban Trail along the north side of SR 526 between E Casino Road and the dedicated trail right-of-way. Alternatives EGN-1A, EGN-2B, and EGN-2B with North Side of SR 526 Design Option require reconstruction of approximately 2,300 feet of trail. Alternatives EGN-3E and EGN-3E with North Side of SR 526 Design Option require approximately 1,900 feet of reconstruction.

The guideway for Alternatives EGN-1A, EGN-2B, and EGN-2B with North Side of SR 526 Design Option would be constructed directly above/on the Interurban Trail for approximately 2,000 feet east of E Casino Road. Alternatives EGN-3E and EGN-3E with North Side of SR 526 Design Option would construct an elevated guideway over the Interurban Trail along 84th Street SE, and once the guideway crosses to the north side of SR 526, it would be located above/on the Interurban Trail for approximately 1,600 feet. All the Build Alternatives would require the Interurban Trail to be relocated to the northern side of the guideway.

In all cases, the Interurban Trail would be detoured during construction as needed to maintain access for trail users.

Additional proposed non-motorized facility construction closures for the SR 526/Evergreen Way Segment are summarized in Table 5-6.

**Table 5-6 Proposed Non-Motorized Facility Construction Closures – SR 526/Evergreen Way Segment**

| Alternative          | Roadway       | Closure Type                         | Duration |
|----------------------|---------------|--------------------------------------|----------|
| All EGN alternatives | 5th Avenue W  | Sidewalks on both sides              | Short    |
| All EGN alternatives | Evergreen Way | Sidewalk on one side                 | Short    |
| All EGN alternatives | Casino Road   | Sidewalks and bike lanes on one side | Moderate |

**5.5.8 Broadway/I-5 Segment**

The proposed non-motorized facility construction closures for the Broadway/I-5 Segment are summarized in Table 5-7.

**Table 5-7 Proposed Non-Motorized Facility Construction Closures – Broadway/I-5 Segment**

| Alternative          | Roadway                 | Closure Type                        | Duration |
|----------------------|-------------------------|-------------------------------------|----------|
| Both BI alternatives | Beverly Boulevard       | Sidewalks on one side               | Moderate |
| BI-1                 | Broadway at Lowell Road | Sidewalk on one side of Lowell Road | Short    |
| BI-1                 | Lowell Road             | Sidewalk on one side                | Moderate |
| BI-2                 | Madison Street          | Sidewalks on one side               | Moderate |
| BI-2                 | Lowell Road             | Sidewalks on one side               | Moderate |
| BI-2                 | Broadway                | Sidewalk on one side, where present | Moderate |

### 5.5.9 Everett Station Segment

The proposed non-motorized facility construction closures for the Everett Station Segment are summarized in Table 5-8.

**Table 5-8 Proposed Non-Motorized Facility Construction Closures – Everett Station Segment**

| Alternative          | Roadway          | Closure Type            | Duration |
|----------------------|------------------|-------------------------|----------|
| All EVT alternatives | Broadway         | Sidewalks on one side   | Moderate |
| All EVT alternatives | 41st Street      | Sidewalk on one side    | Short    |
| EVT-1A               | Smith Avenue     | Sidewalk on one side    | Moderate |
| EVT-1A and EVT-2C    | 33rd Street      | Sidewalks on both sides | Moderate |
| EVT-1A and EVT-2C    | 32nd Street      | Sidewalks on both sides | Moderate |
| EVT-2C               | McDougall Avenue | Sidewalks on both sides | Moderate |
| EVT-2C and EVT-3D    | Pacific Avenue   | Sidewalks on both sides | Short    |
| EVT-3D               | Wall Street      | Sidewalks on both sides | Moderate |
| EVT-3D               | Hewitt Avenue    | Sidewalks on both sides | Short    |

### 5.5.10 OMF North Site Alternatives

#### 5.5.10.1 OMF Site F (SR 99)

OMF Site F would require full overnight closures of Airport Road to install the elevated guideway sections over the road. The sidewalks and bicycle lanes along Airport Road would be closed during this construction period.

#### 5.5.10.2 OMF Site F with Lead Tracks to the West Side of Airport Road Design Option

OMF Site F with Lead Tracks to the West Side of Airport Road Design Option would require full overnight closures of Airport Road and SR 99 for the construction of elevated guideway sections. The sidewalks along both Airport Road and SR 99 as well as the bicycle lanes along Airport Road would be closed during this construction period.

### **5.5.10.3 OMF Site E (Airport Road)**

There would be no construction related impacts to non-motorized facilities with OMF Site E.

### **5.5.10.4 OMF Site B (SR 526)**

There would be no construction related impacts to non-motorized facilities with OMF Site B.

### **5.5.10.5 OMF Site B with Lead Tracks to South Side of SR 526 Design Option**

There would be no construction related impacts to non-motorized facilities with OMF Site B with Lead Tracks to South Side of SR 526 Design Option.

## **5.6 Safety**

With each of the Build Alternatives, traffic diversion caused by light rail guideway construction would lead to higher traffic volumes on detour streets. The higher traffic volumes could lead to a potential increase in collision frequency; however, crash rates should remain similar to existing conditions due to the limited volume diversion and length of closures. In locations where there is no physical change to the roadway, the types of crashes would also remain similar to existing conditions.

Where construction zones for the light rail guideway run parallel to a roadway, temporary construction barriers and traffic control devices would be employed to separate construction workers, activity, and equipment from the general traffic. These safety measures would be applied in accordance with guidance in the FHWA's MUTCD, Transportation Management Plan strategies in Chapter 1010 of the WSDOT Design Manual, and in accordance all local jurisdictional regulations. Roadways where these safety treatments would be used include:

- I-5.
- SR 99.
- SR 526.
- Alderwood Mall Boulevard.
- 33rd Avenue W.
- 184th Street SW.
- 4th Avenue W.
- Airport Road/128th Street SW.
- W Casino Road and E Casino Road.
- Evergreen Way.
- Broadway.
- McDougall Avenue.
- Smith Avenue.

Temporary construction barriers and traffic control devices would be present for the duration of guideway construction.

## 5.7 Aviation

### 5.7.1 Alignment and Station Alternatives

Neither of the Build Alternatives in the SR 99/Airport Road Segment would have construction impacts on airport-owned property. However, Alternative AIR-2B would require road closures of Airport Road during construction. A long-term closure of two lanes would be required to widen and realign the roadway as well as short-term nighttime closures for additional construction activities. These closures may impact employee, passenger, or freight access to Paine Field. Both alternatives would also require short- and moderate-term closures of 112th Street SW, but the proposed detour route would largely eliminate impacts to airport traffic.

All Build Alternatives in the SW Everett Industrial Center Segment would have construction impacts on airport property. The construction impacts would extend past the area being acquired for transportation use to the limits of each alternative (see Figure 4-38 to Figure 4-41). Construction would not impact any buildings on airport property. For all alternatives in this segment, access to aviation facilities, including the passenger terminal, on the west side of Airport Road would be maintained during construction. However, a full short-term closure and a moderate-term one lane closure would be required on 100th Street SW, which may impact access to airport-owned property on the east side of Airport Road.

### 5.7.2 OMF North Site Alternatives

OMF Site F, OMF Site F with Lead Tracks to West Side of Airport Road Design Option, OMF Site B, and OMF Site B with Lead Tracks to South Side of SR 526 would not have any construction impacts on airport property.

The construction impacts of OMF Site E on airport property would be confined to the site being acquired for transportation use. The limits shown on Figure 4-42 indicate the area impacted by construction activities. OMF Site E would not result in any additional road closures that would affect access to the airport outside of those required for the SR 99/Airport Road and SW Everett Industrial Center alternatives.

## 5.8 Freight

For all Build Alternatives, impacts on freight truck movements would be approximately the same as impacts to general traffic as discussed in Sections 5.1 and 5.3. When partial street closures are necessary during construction, the intended purpose of any detour routes would be to provide an alternate for general-purpose traffic. It is expected that freight would continue to travel on SR 99, I-5, or other designated freight corridors.

Temporary access closures for businesses could also occur during construction, affecting freight (such as deliveries). Service and loading areas for private businesses in all segments may be impacted by periodic access closures during construction. If driveway closures are required, access to these properties would be maintained to the extent possible. With driveway closures, detours for freight would cause similar impacts compared to what is described for general-purpose traffic impacts. Full street closures on these main arterials are expected only on nights and weekends.

The construction of the guideway for Alternative EVT-3D north of Everett Station would require some impacts to the BNSF rail tracks. While construction would not take place on BNSF property, some closures would be necessary during girder setting and flaggers would be required during shaft construction.

## **6 POTENTIAL MITIGATION MEASURES**

Sound Transit is committed to complying with all applicable federal, state, and local environmental regulations, following best management practices, and designing the EVLE Project in a way that mitigates adverse impacts. As a result, mitigation measures are reflected in the design of Build Alternatives. The following sections present additional potential mitigation measures that would further reduce or eliminate adverse effects. Final mitigation measures will be based on advanced design and will be included in the Final EIS and in FTA's Record of Decision as environmental commitments for the project.

### **6.1 Regional Transportation Network**

#### **6.1.1 Operational Impacts**

There would be no operational impacts to regional facilities as a result of the EVLE Project; therefore, no mitigation would be needed during light rail operations.

#### **6.1.2 Construction Impacts**

A Maintenance of Traffic Plan that addresses how traffic would be maintained for all transportation modes would be prepared during subsequent EVLE Project design and construction phases for approval by WSDOT and local jurisdictions. The Maintenance of Traffic Plan would include design drawings that show detours, lane modifications/closures, and other construction zones or activities. The plan would incorporate guidance in the FHWA's MUTCD and Transportation Management Plan strategies in Chapter 1010 of the WSDOT Design Manual to be applied during construction periods. Sound Transit would also engage major employers where appropriate when developing the Maintenance of Traffic Plan.

### **6.2 Transit**

#### **6.2.1 Operational Impacts**

Mitigation for transit service and operations with the EVLE Project would not be required because the light rail extension would improve the regional transit system. The expanded light rail network with the EVLE Project would have a beneficial impact on transit service, including reduced transit travel times and improved transit reliability to regional destinations. Sound Transit would coordinate with Community Transit and Everett Transit to develop bus service integration plans that integrate bus service with the regional light rail system.

Sound Transit would coordinate with WSDOT, Snohomish County, the City of Everett, Everett Transit, and Community Transit to reconfigure the existing transit facilities at Ash Way Park-and-Ride, Mariner Park-and-Ride, and Everett Station to serve local transit and light rail.



## 6.2.2 Construction Impacts

Sound Transit would coordinate with Community Transit, Everett Transit, local jurisdictions, and the Federal Transit Administration (FTA), where appropriate, to identify and agree to bus service and associated infrastructure modifications and transit facility improvements that maintain transit service and access through affected areas during construction times. This would include continuing to coordinate on construction-related impacts to local transit operations to determine the potential mitigation required, as many of the alternatives close roadways served by transit and restrict access to transit facilities for varying durations.

Sound Transit would maintain access to existing bus stops and layovers to the extent feasible and coordinate with Community Transit, Everett Transit, and local jurisdictions to minimize impacts and disruptions. Where needed, this coordination would include other transit operators as well. Where bus stops and layovers could not be maintained in existing locations, Sound Transit would implement temporary facilities to maintain service and access. Information would be communicated to riders in advance of construction at these locations. Where construction would temporarily displace park-and-ride parking, temporary parking in the vicinity would be investigated. Otherwise, park-and-ride users would be required to change their mode of access to the park-and-ride or use other park-and-rides such as McCollum or South Everett Park-and-Ride temporarily while construction occurs.

Sound Transit would maintain non-motorized access to transit, where feasible, through construction areas, such as providing dedicated walkways or alternative bicycle facilities around the construction area. Where non-motorized access is not able to be maintained through construction areas, Sound Transit would implement temporary non-motorized facilities, such as temporary sidewalks or bike lanes, to maintain non-motorized access to transit. Sound Transit would also notify the public of any closures.

## 6.3 Arterial and Local Street Operations

### 6.3.1 Operational Impacts

Traffic impacts were determined for arterials and local streets by comparing the overall intersection operations for the No Build and Build Alternatives against the agency operational standards using LOS. Mitigation would be required at intersections where operations would not meet local agency operational standards and intersection delay would be more than 15 seconds worse than with the No Build Alternative.

Potential improvements for the intersections that would require mitigation are summarized below. Sound Transit would provide these improvements or other improvements agreed to with the AHJ. As the project design advances, Sound Transit would continue to work with affected jurisdictions/agencies to evaluate mitigation strategies for safe, efficient operations. Final mitigation will be determined and agreed upon by Sound Transit and the affected jurisdiction(s). Sound Transit's contribution to improve intersections would be determined during the project permitting process.

### 6.3.1.1 West Alderwood Segment

No study intersections in the West Alderwood Segment would require mitigation because all public intersections are forecast to meet agency standards or the additional delay under the Build conditions is less than 15 seconds.

### 6.3.1.2 Ash Way Segment

Intersections that would be considered for potential mitigation measures in the Ash Way Segment vary depending on the alternative in each segment and are noted in Table 6-1.

**Table 6-1 Potentially Impacted Intersections to be Considered for Mitigation – Ash Way Segment**

| ID  | Intersection                    | AM or PM Peak | Alternative(s) |
|-----|---------------------------------|---------------|----------------|
| 204 | 164th Street SW at 14th Place W | PM            | ASH-2D         |

The operations of the six intersections along 164th Street SW in the Ash Way Segment are inter-related. The SimTraffic model shows EB queues at 13th Avenue W/Meadow Road causing spillback that affected the intersections to the west. The improvements that were evaluated for the intersection of 164th Street SW at 13th Avenue W/Meadow Road are:

- Increasing the EB left-turn green time and the EB green time.
- Restriping the NB approach of 13th Avenue W to one left-turn lane and one shared through/right-turn lane. This would allow the signal to operate as a typical 8-phase signal without split timing for the north-south phases.
- These improvements would reduce delays across the six related intersections (intersection ID 201 through 205 and ID 212) as follows:
  - Alternative ASH-1A AM Peak-Hour – Decrease of 7.7 seconds from 225.7 seconds (37.6 seconds per intersection) to 218.0 seconds of total delay (36.3 seconds per intersection).
  - Alternative ASH-1A PM Peak-Hour – Decrease of 26.1 seconds from 429.5 seconds (71.6 seconds per intersection) to 403.4 seconds of total delay (67.2 seconds per intersection).
  - Alternative ASH-2D AM Peak-Hour – Decrease of 10.1 seconds from 248.2 seconds (41.4 seconds per intersection) to 238.1 seconds of total delay (39.7 seconds per intersection).
  - Alternative ASH-2D PM Peak-Hour – Decrease of 17.0 seconds from 414.5 seconds (69.1 seconds per intersection) to 397.5 seconds of total delay (66.3 seconds per intersection).

The results with the mitigation are summarized in Table 6-2 for the AM peak hour and Table 6-3 for the PM peak hour. The results are shown in Attachment B for the Synchro analysis and Attachment C for the SimTraffic analysis.

**Table 6-2 2046 AM Peak Hour Intersection Level of Service – Ash Way Segment**

| ID  | Intersection                                                | Intersection Control | No Build |                 | ASH-1A Without Mitigation |                 | ASH-2D Without Mitigation |                 | ASH-1A With Mitigation |                 | ASH-2D With Mitigation |                 |
|-----|-------------------------------------------------------------|----------------------|----------|-----------------|---------------------------|-----------------|---------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|
|     |                                                             |                      | LOS      | Delay (sec/veh) | LOS                       | Delay (sec/veh) | LOS                       | Delay (sec/veh) | LOS                    | Delay (sec/veh) | LOS                    | Delay (sec/veh) |
| 201 | Ash Way at 164th Street SW <sup>a,b</sup>                   | Signalized           | F        | 83.5            | E                         | 72.2            | E                         | 66.2            | E                      | 74.6            | E                      | 60.4            |
| 202 | 164th Street SW at I-5 SB Ramps <sup>a,b</sup>              | Signalized           | E        | 74.7            | E                         | 74.4            | E                         | 75.7            | E                      | 67.1            | E                      | 67.8            |
| 203 | 164th Street SW at I-5 NB Ramps <sup>a,b</sup>              | Signalized           | B        | 18.8            | B                         | 15.0            | B                         | 15.5            | B                      | 14.4            | B                      | 15.3            |
| 204 | 164th Street SW at 14th Place W <sup>a</sup>                | Signalized           | C        | 22.3            | B                         | 19.7            | C                         | 29.5            | B                      | 18.7            | C                      | 31.3            |
| 205 | 164th Street SW at 13th Avenue W/Meadow Road <sup>a,b</sup> | Signalized           | F        | 145.8           | D                         | 39.1            | E                         | 56.1            | D                      | 38.4            | E                      | 58.2            |
| 206 | Ash Way at ASH-A Park-and-Ride Access                       | Signalized           | A        | 9.6             | A                         | 8.3             | A                         | 4.8             | A                      | 8.3             | A                      | 4.8             |
| 207 | Ash Way at ASH-A Transit Access <sup>c</sup>                | TWSC <sup>d</sup>    | A        | 7.2             | A                         | 6.8             | A                         | 7.2             | A                      | 6.8             | A                      | 7.2             |
| 208 | Meadow Road at ASH-D Transit Access                         | TWSC                 | B        | 11.0            | B                         | 11.1            | B                         | 10.9            | B                      | 11.1            | B                      | 10.9            |
| 209 | Motor Place at Bridge over I-5                              | TWSC                 | A        | 8.8             | B                         | 10.1            | A                         | 9.4             | B                      | 10.1            | A                      | 9.4             |
| 210 | Meadow Road at 161st Street                                 | TWSC                 | ---      | ---             | B                         | 10.5            | B                         | 11.0            | B                      | 10.5            | B                      | 11.0            |
| 211 | Ash Way at 18th Avenue W <sup>e</sup>                       | Roundabout           | A        | 6.6             | A                         | 6.8             | A                         | 6.8             | A                      | 6.8             | A                      | 6.8             |
| 212 | 164th Street SW at Motor Place <sup>a</sup>                 | TWSC                 | C        | 23.0            | A                         | 5.3             | A                         | 5.2             | A                      | 4.8             | A                      | 5.1             |

**NOTES:**

- Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in gray.
- Reported using HCM 2000 methodology due to non-standard phasing.
- Would change to signalized in Build conditions.
- Evaluated with SIDRA.

**Table 6-3 2046 PM Peak Hour Intersection Level of Service – Ash Way Segment**

| ID  | Intersection                                                | Intersection Control | No Build |                 | ASH-1A Without Mitigation |                 | ASH-2D Without Mitigation |                 | ASH-1A With Mitigation |                 | ASH-2D With Mitigation |                 |
|-----|-------------------------------------------------------------|----------------------|----------|-----------------|---------------------------|-----------------|---------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|
|     |                                                             |                      | LOS      | Delay (sec/veh) | LOS                       | Delay (sec/veh) | LOS                       | Delay (sec/veh) | LOS                    | Delay (sec/veh) | LOS                    | Delay (sec/veh) |
| 201 | Ash Way at 164th Street SW <sup>a,b</sup>                   | Signalized           | F        | 115.1           | F                         | 111.3           | F                         | 95.2            | F                      | 111.3           | F                      | 95.5            |
| 202 | 164th Street SW at I-5 SB Ramps <sup>a,b</sup>              | Signalized           | E        | 57.4            | D                         | 51.6            | E                         | 60.3            | D                      | 45.9            | E                      | 56.3            |
| 203 | 164th Street SW at I-5 NB Ramps <sup>a,b</sup>              | Signalized           | F        | 95.7            | E                         | 76.6            | F                         | 80.7            | F                      | 80.7            | E                      | 80.0            |
| 204 | 164th Street SW at 14th Place W <sup>a,b,c</sup>            | Signalized           | D        | 40.3            | D                         | 54.6            | <b>E</b>                  | <b>57.7</b>     | D                      | 54.8            | <b>E</b>               | <b>58.1</b>     |
| 205 | 164th Street SW at 13th Avenue W/Meadow Road <sup>a,b</sup> | Signalized           | F        | 179.7           | F                         | 122.4           | F                         | 107.8           | F                      | 97.3            | F                      | 95.0            |
| 206 | Ash Way at ASH-A Park-and-Ride Access                       | Signalized           | B        | 13.3            | B                         | 19.3            | B                         | 14.4            | B                      | 19.3            | B                      | 14.4            |
| 207 | Ash Way at ASH-A Transit Access <sup>d</sup>                | TWSC <sup>e</sup>    | A        | 8.2             | C                         | 22.1            | A                         | 8.8             | C                      | 22.1            | A                      | 8.8             |
| 208 | Meadow Road at ASH-D Transit Access                         | TWSC                 | B        | 14.6            | C                         | 15.3            | B                         | 14.8            | C                      | 15.3            | B                      | 14.8            |
| 209 | Motor Place at Bridge over I-5                              | TWSC                 | A        | 8.5             | A                         | 10.0            | A                         | 9.4             | A                      | 10.0            | A                      | 9.4             |
| 210 | Meadow Road at 161st Street                                 | TWSC                 | -        | -               | B                         | 11.8            | B                         | 14.8            | B                      | 11.8            | B                      | 14.8            |
| 211 | Ash Way at 18th Avenue W <sup>f</sup>                       | Roundabout           | A        | 6.1             | A                         | 6.3             | A                         | 6.3             | A                      | 6.3             | A                      | 6.3             |
| 212 | 164th Street SW at Motor Place <sup>a</sup>                 | TWSC                 | D        | 28.1            | B                         | 13.0            | B                         | 12.8            | B                      | 13.4            | B                      | 12.6            |

**NOTES:**

- Delay is reported from SimTraffic using a network delay, but the LOS letter grade is based on the standard HCM thresholds to show a comparative result.
- Jurisdictional LOS threshold not met in the condition(s) highlighted in **gray**.
- Build condition does not meet jurisdictional LOS threshold and has at least a 15 second increase in delay compared to the No Build condition in the conditions(s) **bolded**.
- Reported using HCM 2000 methodology due to non-standard phasing.
- Would change to signalized in Build conditions.
- Evaluated with SIDRA.

### 6.3.1.3 Mariner Segment

No study intersections in the Mariner Segment would require mitigation because all are forecast to meet agency standards or the increase in delay is below the 15 second delay increase threshold for mitigation.

### 6.3.1.4 SR 99/Airport Road Segment

No study intersections in the SR 99/Airport Road Segment would require mitigation because all are forecast to meet agency standards or the additional delay under the Build conditions is less than 15 seconds.

### 6.3.1.5 SW Everett Industrial Center Segment

No study intersections in the SW Everett Industrial Center Segment would require mitigation because all are forecast to meet agency standards.

### 6.3.1.6 SR 526/Evergreen Segment

No study intersections in the SR 526/Evergreen Segment would require mitigation because all are forecast to meet agency standards or the additional delay under the Build conditions is less than 15 seconds.

### 6.3.1.7 Broadway/I-5 Segment

Since there are no station alternatives in the Broadway/I-5 Segment, no intersections were studied for this analysis.

### 6.3.1.8 Everett Station Segment

Intersections that would be considered for potential mitigation measures in the Everett Station Segment vary depending on the alternative in each segment and are noted in Table 6-4.

**Table 6-4 Potentially Impacted Intersections to be Considered for Mitigation**

| ID  | Intersection                       | AM or PM Peak | Alternative(s)         |
|-----|------------------------------------|---------------|------------------------|
| 704 | Broadway at 32nd Street            | AM            | EVT-3D                 |
| 711 | McDougall Avenue at Pacific Avenue | AM and PM     | EVT-1A                 |
| 716 | Broadway at 34th Street            | AM and PM     | All Build Alternatives |
| 717 | Broadway at 35th Street            | AM and PM     | All Build Alternatives |
| 718 | Broadway at 36th Street            | AM and PM     | All Build Alternatives |
| 719 | Pacific Avenue at Fulton Street    | PM            | All Build Alternatives |

Six intersections in the Everett Station Segment could require mitigation:

- **Broadway at 32nd Street** – Operations under Alternatives EVT-1A and EVT-3D are expected to continue operating at LOS F during the AM and PM peak hours, while only Alternative EVT-3D during the AM peak hour meets the criteria for mitigation. Under Alternative EVT-1A, delay is expected to increase by 4% during the AM peak hour and remain over 300 seconds during the PM peak hour. Under Alternative EVT-3D, delay is



expected to increase by 77% during the AM peak hour and remain over 300 seconds during the PM peak hour. The delay at this intersection is caused by the delay on 32nd Street, which has stop-control, and is caused by a relatively small number of vehicles on 32nd Street. The improvement for this intersection to mitigate the LOS F operations would be signalization, but that improvement would not be needed due to the other nearby signals that could accommodate additional trips. Improvements to mitigate AM and PM operations could include restricting minor approaches to right turn only.

- McDougall Avenue at Pacific Avenue** – Operations under Alternative EVT-1A are expected to degrade to LOS F during the AM peak hour and continue operating at LOS F during the PM peak hour. Delays are expected to increase by 314% and 356% during the AM and PM peak hour, respectively. Improvements to mitigate AM and PM operations could include restricting the northbound and southbound approaches to right turn only. There is good connectivity to nearby signals for vehicles making other movements so construction of a new signal at this location may not be needed or warranted. Intersections along Smith Avenue to the west could accommodate at least 30% of the NB trips shifted from McDougall Avenue in the PM peak hour while operating at acceptable LOS. A shift of 30 of the NB trips would better balance delays across intersections and would be anticipated to happen as delays increase on McDougall Avenue.
- Broadway at 34th Street** – Under all Build Alternatives, operations are expected to remain at LOS F during the AM peak hour and degrade to LOS F during the PM peak hour. Delays under Alternative EVT-1A are expected to increase by 77% and 62% during the AM and PM peak hour, respectively. Delays under Alternative EVT-2C are expected to increase by 77% and 34% during the AM and PM peak hour, respectively. Delays under Alternative EVT-3D are expected to increase by 77% and 56% during the AM and PM peak hours, respectively. Improvements to mitigate AM and PM operations could include restricting the EB and WB approaches to right turn only, diverting EB left turns to the signal at Broadway and 33rd Street. The intersection of Broadway at 33rd Street was analyzed with all EB/WB left turn and through movements from 34th, 35th, and 36th Streets diverted to it and showed it would operate acceptably (LOS C or above) in both the AM and PM peak hours.
- Broadway at 35th Street** – Operations are expected to remain at LOS F for all Build Alternatives during the AM and PM peak hours. Delays under Alternative EVT-1A are expected to increase by 36% and 113% during the AM and PM peak hour, respectively. Delays under Alternative EVT-2C are expected to increase by 102% and to above 300 seconds during the AM and PM peak hour, respectively. Delays under Alternative EVT-3D are expected to increase by 28% and 60% during the AM and PM peak hour, respectively. Improvements to mitigate AM and PM operations could include restricting the EB and WB approaches to right turn only, diverting EB left turns to the signal at Broadway and 33rd Street or Broadway at 37th Street. The intersection of Broadway at 33rd Street was analyzed with all EB/WB left turn and through movements from 34th, 35th, and 36th Streets diverted to it and showed it would operate acceptably (LOS C or above) in both the AM and PM peak hours.
- Broadway at 36th Street** – Operations are expected to remain at LOS F for all Build Alternatives during the AM and PM peak hours. Delays under all Build Alternatives are expected to increase to or remain above 300 seconds during the AM and PM peak hours. Improvements to mitigate AM and PM operations could include restricting the EB and WB approaches to right turn only, diverting EB left turns to the signal at Broadway and 37th Street. The intersection of Broadway at 33rd Street was analyzed with all EB/WB left turn and through movements from 34th, 35th, and 36th Streets diverted to it and showed it would operate acceptably (LOS C or above) in both the AM and PM peak hours.

- **Pacific Avenue at Fulton Street** – Under all Build Alternatives, operations are expected to degrade to LOS E or F during the PM peak hour. Delays experienced during the PM peak hour are expected to increase by 509% under Alternative EVT-1A, by 396% under Alternatives EVT-2C and EVT-3D. Improvements to mitigate PM operations could include restriping the northbound approach to include a left-turn lane and signal timing modifications. This change is expected to allow the intersection to operate at an acceptable LOS D under all Build Alternatives.

### 6.3.2 Construction Impacts

Sound Transit would develop a Construction Access and Traffic Management Plan for the EVLE Project. The plan would be developed as the project advances and include the overarching goals and objectives for the project's construction and the approach to partner agency coordination. It would include applicable mitigation commitments by Sound Transit, finalized as part of the environmental documentation, and additional detail reflecting continued design for the project after the Final EIS. Components likely to be addressed in detail include maintaining business access; minimizing construction disruption during large events; providing alternate routes for freight, general traffic, and non-motorized access; parking management; and maintaining transit operations.

All mitigation measures associated with constructing the EVLE Project would comply with local regulations governing construction traffic control and construction truck routing. Sound Transit would finalize detailed construction plans in close coordination with local jurisdictions and WSDOT during the final design and permitting phases of the project. Potential mitigation measures for traffic impacts due to light rail construction could include the following practices:

- Conform to the MUTCD (FHWA 2009) and jurisdictional agency requirements for all traffic plan maintenance.
- Clearly sign and provide reasonable detour routes when cross streets are closed for guideway construction. The contractor would be required to keep nearby parallel facilities open to facilitate access and mobility.
- Use lighted or reflective signage to direct drivers to truck haul routes to ensure visibility during nighttime work hours.
- Communicate public information through tools such as print, radio, posted signs, websites, and email to provide information regarding street closures, hours of construction, business access, and parking impacts.
- Coordinate access closures with affected businesses and residents. The contractor would be required to perform this task in coordination with Sound Transit staff. If access closures are required, property access to residences and businesses would be maintained to the extent possible. If access to the property cannot be maintained, the specific construction activity would be reviewed to determine if it could occur during non-business hours or if the parking spaces and users of this access (for example, deliveries) could be provided at an alternative location.
- Post advance notice signs prior to construction in areas where construction activities would affect access to surrounding businesses.

- Provide regular updates to schools, emergency service providers, local agencies, solid waste utilities, and postal services, and assist public school officials in providing advance and ongoing notice to students and parents concerning construction activity near schools.
- Schedule traffic lane closures and high volumes of construction truck traffic during off-peak hours to minimize delays during periods of higher traffic volumes as much as possible.
- Cover potholes and open trenches, where possible, and use protective barriers to protect drivers from open trenches.

## 6.4 Parking

### 6.4.1 Operational Impacts

To evaluate and determine the causes of any changes to public parking access, Sound Transit would conduct an on-street parking inventory and utilization study of all block faces where public parking is allowed within 0.25 miles of any station without a publicly accessible parking facility. Data collection would occur within one year before and again within one year after the start of revenue service, based on a mutually agreed upon study methodology that evaluates—for each block face, and for the study area as a whole—(a) whether parking availability is constrained (greater than 90% occupancy) after opening, but was largely available (less than 85% occupancy) prior to opening, and (b) if over 50% of the on-street parking activity can reasonably be attributed to transit passenger parking (note: Data collection would be timed as feasible to avoid major construction activity at the station, on the alignment, and in the station area). Any unavoidable construction-related impacts to parking capacity and usage in the station area would be noted in the report of findings and considered in the evaluation of changes to public parking availability from before to after the start of revenue service.

Where impacts attributable to transit passenger parking are identified, Sound Transit and the local jurisdiction would work together in good faith to plan and implement parking control measures on impacted block faces, such as parking meters, restricted parking zones, time limited parking, and passenger and truck load zones. Sound Transit would agree to fund the initial capital costs of implementing parking meters and/or regulatory signage on impacted block faces within the 0.25-mile study area. The local jurisdiction would be responsible for monitoring and providing all enforcement and maintenance costs. Off-street private lot owners would be responsible for monitoring and preventing potential EVLE patron parking within their own lots. For acquired off-street parking resulting from property acquisitions, Sound Transit would work closely with affected private business owners to determine the fair market value of the acquired spaces, as documented in Draft EIS Appendix G.2 [Acquisitions, Displacements, and Relocations Technical Report].

### 6.4.2 Construction Impacts

Through local permitting processes with AHJs, Sound Transit would coordinate with local jurisdictions on measures to address temporary curbside management and project parking impacts during construction, in conjunction with the other infrastructure and development projects in the study area. This could include temporarily relocating affected ADA spaces or commercial loading zones that would continue to serve adjacent land uses.

Sound Transit would work with owners and operators of garages and surface lots where parking could be removed or where ingress or egress could be blocked during construction to ensure

access to those facilities remains open or parking remains available. This could include temporary alternative parking or access points, or coordinating timed access through construction zones.

Sound Transit would work with the contractor and the local jurisdictions to minimize construction worker parking by providing parking onsite where possible, or nearby off-street parking.

## **6.5 Non-Motorized Facilities**

### **6.5.1 Operational Impacts**

The EVLE Project is not expected to permanently impact existing designated bicycle facilities or routes. If impacts are identified as the project advances, Sound Transit would work with local jurisdictions to rebuild the affected facilities or develop alternate facilities or routes that achieve, to the extent feasible, a similar level of protection and comfort afforded by the facility being impacted. These replacements would be funded by Sound Transit and may include, for example, protected or standard bicycle lanes, trails, and neighborhood greenway treatments, along with associated design elements such as pavement markings and bicycle signals where needed.

The EVLE Project may also have direct physical impacts to existing sidewalks and trails due to placement of guideway columns. As the project design is refined and potential column locations are identified with greater precision, additional pedestrian and bicycle visibility issues may emerge. These visibility issues could be mitigated with measures such as protected vehicle turns or restricting vehicle movements.

Sound Transit would rebuild affected non-motorized facilities to meet ADA requirements as well as applicable design standards or to a standard agreed to by Sound Transit and local jurisdictions. As the project design advances, if it is determined that a facility could not be rebuilt to applicable design standards and an alternate design cannot be agreed upon in the original location, Sound Transit would work with the local jurisdictions to develop mitigation, such as an alternate route.

### **6.5.2 Construction Impacts**

When non-motorized facilities such as sidewalks and bicycle lanes must be temporarily closed for construction, Sound Transit would provide clearly marked detours within construction areas, such as dedicated walkways and alternate bicycle routes that may include treatments such as pedestrian and bicycle signals, signal optimization including leading pedestrian intervals, crosswalks, curb bulbs, rectangular rapid flashing beacons, pavement markings, and temporary signals. Where possible, temporary facilities would be designed to applicable local jurisdictional design standards; at a minimum, they would comply with ADA requirements.

When maintaining the facility would not be feasible, Sound Transit would work with local jurisdictions to develop and implement a construction management plan to provide alternate facilities for non-motorized travel that, to the extent feasible, offer a similar level of protection and comfort to the temporarily closed facility. These replacements would be located and designed in coordination with local jurisdictions and funded by Sound Transit.

Pedestrian and bicycle facilities removed or damaged by construction would be replaced, to the extent possible, by permanent facilities that meet applicable design standards or as agreed to by local jurisdictions when project construction is complete.

## **6.6 Safety**

### **6.6.1 Operational Impacts**

The EVLE Project would include roadway, transit, and non-motorized improvements and associated potential mitigation around the stations. These project elements and potential mitigation are described in the sections for transit (Section 6.2.1), arterials and local streets (Section 6.3.1), and non-motorized facilities (Section 6.5.1). Beyond these improvements, the project would operate in exclusive right-of-way, separated from other modes of travel, and would be built to applicable design standards, such as those that determine the placement of guideway columns; therefore, no further mitigation specific to safety-related impacts is proposed.

### **6.6.2 Construction Impacts**

During construction, Sound Transit would develop a Maintenance of Traffic Plan to adhere to federal and local agency guidelines as described in the introduction of Section 5, as well as to the measures described in Section 6.3.1. The Maintenance of Traffic Plan would be created to minimize safety concerns on the transportation system during construction. The mitigation proposed in Section 6.2.2 for transit and Section 6.5.2 for non-motorized facilities would also be implemented to maximize safety. Therefore, no additional safety-related mitigation measures for the construction period are anticipated to be necessary.

## **6.7 Aviation**

None of the Build Alternatives would have operational impacts on FAA-regulated areas. Sound Transit would work with Snohomish County and Paine Field to minimize impacts to airport-owned property and airport access points. Detours would be provided as needed to maintain airport access.

After selection of the preferred alternative, Sound Transit would identify potential mitigation measures in the Obstruction Evaluation/Airport Airspace Analysis necessary to address impacts to aviation during operations and construction.

## **6.8 Freight**

### **6.8.1 Operational Impacts**

The EVLE Project alternatives would not require mitigation during light rail operations beyond the mitigation identified at the local intersections identified in Section 6.3.



## 6.8.2 Construction Impacts

Prior to construction activities that fully close a designated truck route, Sound Transit would work with the Cities of Lynnwood and Everett and Snohomish County to identify detour routes suitable for trucks. Sound Transit would also provide construction information to local jurisdictions and WSDOT for use in the state's freight notification system. Sound Transit would provide information in a format required by WSDOT.

For locations where truck-only loading zones, commercial loading zones, or general loading zones would be eliminated but the businesses that rely on them remain, Sound Transit would coordinate with the Cities of Lynnwood and Everett and Snohomish County to relocate these commercial loading zones.

Sound Transit would coordinate with BSNF during construction near railroad right of way to schedule necessary closures and ensure that railroad safety procedures are followed.

## 7 REFERENCES

City of Everett. 2009. *Everett Freight Access and Mobility Study*.

<https://www.everettwa.gov/DocumentCenter/View/86/Everett-Freight-Access-andMobility-Study-2009-PDF>.

City of Everett. 2022. *Annual Transportation Improvement Program (TIP) Update for 2023-2028*.

[https://www.everettwa.gov/AgendaCenter/ViewFile/Agenda/\\_06292022-1801?packet=true](https://www.everettwa.gov/AgendaCenter/ViewFile/Agenda/_06292022-1801?packet=true).

City of Everett. 2023. *Design and Construction Standards and Specifications for Development*.

<https://www.everettwa.gov/DocumentCenter/View/7038/Vol-1--Design--Construction-Standards--Specifications?bidId=>.

City of Lynnwood. 2022. *Capital Facilities Plan and Transportation Improvement Program*.

<https://www.lynnwoodwa.gov/files/sharedassets/public/v/1/finance/budget-docs/2023-2028-cfp.pdf>.

City of Lynnwood. 2023. *Design Manual*.

<https://www.lynnwoodwa.gov/files/sharedassets/public/v/1/dbs/guides/lynnwood-engineering-design-manual.pdf>.

Community Transit. 2023. *Maps and Schedules*. <https://www.communitytransit.org/maps-and-schedules>. Accessed in November 2023.

Community Transit. 2024. *Year End 2023 Community Transit System Performance Report*.

Everett Transit. 2023. *Schedules*. <https://everetttransit.org/101/Schedules>. Accessed in November 2023.

Federal Aviation Administration (FAA). 2024. *Advisory Circular 150-5300-13B, Airport Design, March 31, 2022 Consolidated to include Change 1, August 16, 2024*.

[https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC-150-5300-13B-Airport-Design-Chg1.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC-150-5300-13B-Airport-Design-Chg1.pdf)

Federal Highway Administration (FHWA). 2009. *Manual on Uniform Traffic Control Devices for Streets and Highways*. 2009 edition, with Revisions 1 and 2. <https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd09r1r2editionhl.pdf>.

Federal Transit Administration (FTA). 2022. *The National Transit Database: NTD Transit Agency Profiles*. <https://www.transit.dot.gov/ntd/transit-agency-profiles>

Puget Sound Regional Council (PSRC). 2018. PSRC SoundCast Travel Demand Model 2018 baseline conditions. Provided by PSRC in June 2024.

Puget Sound Regional Council (PSRC). 2022. *Regional Transportation Plan 2022-2050. Addendum to the VISION 2050 Final Supplemental Environmental Impact Statement*. <https://www.psrc.org/media/5945>.

Puget Sound Regional Council (PSRC). 2024. PSRC SoundCast Travel Demand Model 2040 and 2050 forecast scenarios. Provided by PSRC in June 2024.

Snohomish County. 2022. *Snohomish County 2023-2028 Six-Year Transportation Improvement Program (TIP)*. <https://www.snohomishcountywa.gov/DocumentCenter/View/79141/2023-2028-TIP-Adopted?bidId=>.

Snohomish County. 2024. *Paine Field Master Plan 2040*. <https://www.paineairport.com/250/Approved-Master-Plan>.

Sound Transit. 2016. *Sound Transit 3: The Regional Transit System Plan for Central Puget Sound*. <https://www.soundtransit.org/get-to-know-us/documents-reports/sound-transit-3>.

Transportation Research Board. 2013. *Transit Capacity and Quality of Service Manual, Third edition*. <https://www.trb.org/Main/Blurbs/169437.aspx>.

Washington State Department of Transportation (WSDOT). 2022. 2023-2028 *Statewide Transportation Improvement Program (STIP)*. <https://wsdot.wa.gov/sites/default/files/2023-12/LP-STIP-Documents-2023-26.pdf>.

Washington State Department of Transportation (WSDOT). 2023. *Design Manual*. <https://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/design.pdf>.

Washington State Department of Transportation (WSDOT). 2023. *Washington State Freight and Goods Transportation System (FGTS) 2023 Update*. <https://wsdot.wa.gov/sites/default/files/2023-12/Freight-Report-FGTS2023.pdf>