



# Tacoma Dome Link Extension

**Draft**

Environmental Impact Statement

## EXECUTIVE SUMMARY





December 13, 2024

Dear Recipient:

The U.S. Department of Transportation Federal Transit Administration (FTA) and Sound Transit (the Central Puget Sound Regional Transit Authority) have prepared this Draft Environmental Impact Statement (EIS) on the proposed Tacoma Dome Link Extension Project. The Draft EIS informs Tribes, the public, agencies, and decision makers about the alternatives and environmental consequences of building and operating the Tacoma Dome Link Extension from the City of Federal Way in King County to Tacoma in Pierce County. The document was prepared pursuant to the National Environmental Policy Act (42 United States Code 4321) and the State Environmental Policy Act (Chapter 43.21C Revised Code of Washington). Sound Transit is the project proponent.

In July 2019, the Sound Transit Board identified the alternatives for study in the Draft EIS, including preferred alternatives for the majority of the Tacoma Dome Link Extension. In March 2023, the Sound Transit Board identified additional alternatives for study. The major choices for the project involve the route of the light rail line and station locations. The project would extend Link light rail nearly 10-miles and includes four stations. The alternatives are generally along either Pacific Highway (State Route 99) or Interstate 5 from Federal Way through Fife. All Alternatives would cross the Puyallup River at the same location and follow a similar route to about East Portland Avenue in Tacoma. The alternatives then split into multiple routes between East 25<sup>th</sup> Street and East 26<sup>th</sup> Street.

The Sound Transit Board will consider the analysis in the Draft EIS, Tribal, public and agency comments, and other information before confirming or modifying the preferred alternative. FTA and Sound Transit will prepare a Final EIS, which will respond to substantive comments on the Draft EIS and will evaluate impacts and potential mitigation measures for all of the alternatives. After completion of the Final EIS, the Sound Transit Board will select the project to be built.

The Draft EIS includes the Executive Summary and appendices, which can be found on the flash drive included in this document and online at [www.soundtransit.org/system-expansion/tacoma-dome-link-extension/documents](http://www.soundtransit.org/system-expansion/tacoma-dome-link-extension/documents). Please see the Fact Sheet in this Draft EIS regarding availability of appendices and technical report hard copies, information on public meetings, and how to comment on the Draft EIS, and whom to contact for further information.

Sincerely,

Signed by:

*Erin Green*

C2707795F35745D...

Erin Green

South Corridor Environmental Manager

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**Goran Sparrman**

## **Commitment to Accessibility**

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**TACOMA DOME LINK EXTENSION  
KING AND PIERCE COUNTIES, WASHINGTON  
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

Submitted pursuant to  
the National Environmental Policy Act (NEPA) (42 United States Code 4321)  
and the State Environmental Policy Act (SEPA) (Ch. 43.21C Revised Code of Washington)  
by the

**UNITED STATES DEPARTMENT OF TRANSPORTATION  
FEDERAL TRANSIT ADMINISTRATION  
and  
CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY**  
(Sound Transit)  
in cooperation with  
FEDERAL HIGHWAY ADMINISTRATION  
BUREAU OF INDIAN AFFAIRS  
U.S. ARMY CORPS OF ENGINEERS  
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION  
CITY OF FEDERAL WAY  
CITY OF MILTON  
CITY OF FIFE  
CITY OF TACOMA

10/31/2024

Date of Approval

Signed by:

*Susan Fletcher*

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Susan Fletcher, Regional Administrator  
NEPA Responsible Official  
For Federal Transit Administration, Region 10

10/31/2024

Date of Approval

Signed by:

*Perry Weinberg*

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Perry Weinberg  
Deputy Executive Director  
Office of Environmental Affairs and  
Sustainability  
SEPA Responsible Official  
For Sound Transit

## **Acknowledgement**

*As we plan and build one of the largest transit expansions in North America, which includes the first light rail transit extension on reservation lands in the history of the United States, we are dedicated to our Tribal partners. We would first like to acknowledge the people who have been here since time immemorial: the Puyallup Tribe of Indians, the Muckleshoot Indian Tribe, the Nisqually Indian Tribe, and the Confederated Tribes and Bands of the Yakama Nation. The relationships with these Tribes are imperative for success and to keep our commitment to uplifting Tribal communities with every step we take.*

# FACT SHEET

## Proposed Action

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand the regional light rail system south from the City of Federal Way to Tacoma, Washington. The proposed light rail extension, called the Tacoma Dome Link Extension (TDLE), would be within the cities of Federal Way, Milton, Fife, and Tacoma in King and Pierce Counties. The project travels across the ancestral and reservation lands of the Puyallup Tribe of the Puyallup Reservation (Puyallup Tribe of Indians) and a small portion of unincorporated Pierce County.

The Federal Transit Administration (FTA) and Sound Transit are consulting with four Tribes for the TDLE project: the Puyallup Tribe of Indians; the Muckleshoot Indian Tribe; the Nisqually Indian Tribe; and the Confederated Tribes and Bands of the Yakama Nation.

The proposed project is part of the Sound Transit 3 Plan, funding for which was approved by voters in 2016 (Sound Transit 2016). TDLE would begin at the future South Federal Way Station in Federal Way and end in the Tacoma Dome area of Tacoma. The nearly 10-mile-long project corridor would have four stations and generally parallel State Route (SR) 99 and Interstate 5 (I-5), which are the major north-south routes.

FTA is the lead federal agency under the National Environmental Policy Act (NEPA) and Sound Transit is the lead agency under the Washington State Environmental Policy Act (SEPA). This Draft Environmental Impact Statement (EIS) has been prepared consistent with NEPA and SEPA. The analysis is designed to help Tribes, elected officials, agency decision-makers, community leaders, and the public understand the range of environmental impacts that could result from the proposal. The Draft EIS describes potential adverse impacts of each alternative and describes proposed measures to avoid, minimize, or mitigate potential adverse impacts. The Draft EIS identifies a preferred alternative for a portion of the project, with the exception of sections through Federal Way and Fife. The Sound Transit Board will identify a preferred alternative for the remaining portion through Federal Way and Fife and confirm or modify the preferred alternative after publication of the Draft EIS.

This Draft EIS evaluates several build (light rail) alternatives and a No-Build Alternative, which considers how the transportation system would operate if the proposed project were not built. The No-Build Alternative also provides a baseline against which to measure the impacts of the build alternatives. The build alternatives include at-grade and elevated light rail alignments with different station configurations.

## Project Proponent

Sound Transit  
401 S Jackson Street  
Seattle, WA 98104-2826  
[www.soundtransit.org](http://www.soundtransit.org)

## Dates of Construction and Opening

Sound Transit proposes to begin construction of TDLE in 2028 and forecasts an in-service date of 2035. Parking facilities at the South Federal Way and Fife stations would open by 2038 per the system expansion realignment plan adopted by Sound Transit Board Resolution R2021-05.



## **NEPA Lead Agency**

Federal Transit Administration  
915 2nd Avenue, Suite 3192  
Seattle, WA 98174-1002  
[www.fta.dot.gov/about/region10](http://www.fta.dot.gov/about/region10)

## **NEPA Responsible Official**

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Federal Transit Administration Region 10  
915 2nd Avenue, Suite 3192  
Seattle, WA 98174-1002

## **SEPA Responsible Official**

Perry Weinberg, Deputy Executive Director, Office of Environmental Affairs and Sustainability  
Sound Transit  
401 S Jackson Street  
Seattle, WA 98104-2826

## **Contacts for Additional Information**

### **Federal Transit Administration**

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### **Sound Transit**

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[artie.nelson@soundtransit.org](mailto:artie.nelson@soundtransit.org)

Mailing Address:  
Sound Transit  
401 S Jackson Street  
Seattle, WA 98104-2826

## Anticipated Permits and Approvals

### Tribes

#### Puyallup Tribe of Indians

- Land use and environmental review and approvals in accordance with Puyallup Tribal Code Chapter 15.16
- Clean Water Act Section 401 review of Water Quality Certification
- Intergovernmental Agreement

### Federal Agencies

#### Federal Highway Administration (FHWA)

- Air Space Lease for Use of Interstate Right-of-Way
- Limited Access Break
- Operations and Maintenance Agreement
- NEPA Record of Decision (ROD)
- Design Deviation Approval
- I-5 Compatibility Report

#### Federal Transit Administration (FTA)

- NEPA Final EIS and ROD
- National Historic Preservation Act Section 106 Review
- United States Department of Transportation Act Section 4(f) Review
- Land and Water Conservation Fund Section 6(f) Review

#### Federal Emergency Management Agency (FEMA)

- Conditional Letter of Map Revision (CLOMR), if needed
- Letter of Map Revision (LOMR), if needed

#### U.S. Army Corps of Engineers

- Clean Water Act, Section 404 Permit: Wetlands Approval
- Rivers and Harbors Act, Section 10
- United States Code Title 33 Section 408 (Section 408 Review)

#### U.S. Coast Guard

- Rivers and Harbors Act, Section 9 (Bridge Permit)

#### U.S. Department of the Interior

- Bureau of Indian Affairs, record Tribal easements
- National Historic Preservation Act Section 106 Review
- U.S. Department of Transportation Act Section 4(f) Review
- Land and Water Conservation Fund Section 6(f)

#### U.S. Environmental Protection Agency

- Sole Source Aquifer, project review



U.S. Fish and Wildlife Service

- Federal Endangered Species Act Review

National Parks Service

- U.S. Department of Transportation Act Section 4(f) Review

National Oceanic and Atmospheric Administration Fisheries Service

- Federal Endangered Species Act Review
- Essential Fish Habitat Review
- Marine Mammal Protection Act Review

**State, County, and Regional Agencies**

Sound Transit

- SEPA Project Approval

Washington Department of Fish and Wildlife

- Hydraulic Project Approval

Washington State Department of Archaeology and Historic Preservation

- National Historic Preservation Act Section 106 Review

Washington State Department of Ecology

- Clean Water Act Section 401: Water Quality Certification
- Coastal Zone Management Consistency Certification
- National Pollutant Discharge Elimination System Stormwater Discharge Permit, Clean Water Act Section 402
- Underground Storage Tank 30-Day Notice
- Wastewater Discharge Permit

Washington State Department of Ecology and Puget Sound Clean Air Agency

- Notice of Construction (Air Quality)

Washington State Department of Natural Resources

- Aquatic Lands Lease

Washington State Department of Transportation

- Air Space Lease: State Transportation Routes and Interstate Right-of-Way (with FHWA)
- Construction Oversight Agreement
- Utility Franchise
- Design Documentation Package
- General Permits
- Limited Access Break (with FHWA), if needed
- Operations and Maintenance Agreement (with FHWA)
- Survey Permits
- I-5 Compatibility Report (with FHWA)

## Local Jurisdictions

### Federal Way, Milton, Fife, Tacoma, and/or Pierce County

- Land Use Approvals, such as zoning code amendments, zoning code divergences (variance and/or various administrative processes), Hearing Examiner approval, conditional use permits, special use permits, design review approvals, site plan approvals, lot boundary adjustment/elimination, and development agreements
- Building Permits, such as building, mechanical, plumbing, electrical, sign, fence, awning, and conveyance (elevators and/or escalators) permits
- Construction Permits, such as clearing and grading, demolition, drainage, driveway, haul route, sanitary sewer, side sewer, street use, and tree protection permits
- Environmental Critical Areas/Sensitive Areas Review and Approvals, including wetlands, streams, steep slopes, flood zones, critical habitat, and buffers
- Shoreline Approvals, such as substantial development permits, exemptions, or other approvals
- Noise Variances
- Permanent, Interim, or Temporary Right-of-Way Permits or Franchises (utilities)
- Street and Alley Vacations
- Access or Use Easements for City-Owned Properties
- Floodplain Development License

### Other

#### Utility Providers

- Pipeline and Utility Crossing Permits
- Easements and Use Agreements

Other permits and approvals to be determined.

## Principal Contributors

This Draft EIS was prepared by Sound Transit and consultants at the following firms: HDR Inc., Parametrix, Aqua Terra Cultural Resource Consultants LLC, Casseday Consulting, Cross-Spectrum Acoustics LLC, Heffron Transportation Inc., Historical Research Associates, ECONorthwest, EnviroIssues Inc., and TwoHundred. See Appendix A for a detailed list of preparers.

## Date of Issue

December 13, 2024

## Commenting on the Draft EIS

The public is encouraged to comment on the Draft EIS; substantive comments will be responded to in the Final EIS. The Draft EIS will be available for a comment period of 60 days, beginning December 13, 2024. Comments on the Draft EIS can be made in writing, by email, voicemail, or at the public hearings. All comments are due by close of business February 10, 2025. Send written comments to the following address:

Attention: Elma Borbe, Senior Environmental Planner  
Sound Transit  
401 S Jackson Street  
Seattle, WA 98104

Email comments should be sent to [tdlinkdeis@soundtransit.org](mailto:tdlinkdeis@soundtransit.org). Written or emailed comments should include your name and return address. Comments may also be submitted on voicemail at 206-257-2144, online in the project's Open House ([soundtransit.org/tdlink-deis](https://soundtransit.org/tdlink-deis)) and at a public hearing/open house:

### **Tuesday January 21, 2025 – ONLINE OPEN HOUSE**

Time: 11:30 a.m.-1:30 p.m.

Online: <https://us02web.zoom.us/j/85314895495>

### **Thursday January 23, 2025 – TACOMA**

Time: 5:30-7:30 p.m.

Location: Greater Tacoma Convention Center  
1500 Commerce Street, Tacoma, WA 98402

### **Tuesday January 28, 2025 – FEDERAL WAY**

Time: 5:30-7:30 p.m.

Location: Federal Way Performing Arts and Events Center  
31510 Pete von Reichbauer Way S, Federal Way, WA 98003

### **Thursday January 30, 2025 – FIFE**

Time: 5:30-7:30 p.m.

Location: Fife Community Center  
2111 54th Avenue E, Fife, WA 98424

## Next Actions

Following publication of this Draft EIS and the close of the public comment period, the Sound Transit Board is expected to consider the comments received and confirm or modify the Preferred Alternative for evaluation in the Final EIS, as well as identify a Preferred Alternative for the portion of the project in the cities of Federal Way and Fife, where none has been identified. The Final EIS will analyze the Preferred Alternative along with the other proposed light rail alternatives and the No-Build Alternative. The Final EIS will also respond to substantive Tribal, agency, and public comments on the Draft EIS. Following issuance of the Final EIS, the Sound Transit Board will select the project to be built, including the route and stations.

The FTA will then issue a ROD describing the project Sound Transit will build and how it will avoid, minimize, and mitigate environmental impacts.

## Related Documents

- Final Supplemental Environmental Impact Statement, Long-Range Plan Update (Sound Transit 2014)
- Sound Transit 3: The Regional Transit System Plan for Central Puget Sound (Sound Transit 2016)
- Tacoma Dome Link Extension Early Scoping Information Report (Sound Transit 2018a)
- Tacoma Dome Link Extension Early Scoping Summary Report (Sound Transit 2018b)
- Tacoma Dome Link Extension Pre-Screening and Level 1 Alternatives Evaluation Report (Sound Transit 2019a)
- Tacoma Dome Link Extension Scoping Information Report (Sound Transit 2019b)
- Tacoma Dome Link Extension Scoping Summary Report (Sound Transit 2019c)
- Tacoma Dome Link Extension Level 2 Alternatives Evaluation Report (Sound Transit 2019d)
- Tacoma Dome Link Extension Screening for Fife Station Options (Sound Transit 2023a)
- Tacoma Dome Link Extension Screening for Additional Alternatives in South Federal Way to Milton (Sound Transit 2023b)

All the above Sound Transit documents are available on the Sound Transit website, [www.soundtransit.org](http://www.soundtransit.org).

## Cost of Document and Availability for Review and/or Purchase

This Draft EIS is available for public review in locations listed below. It is available on the Sound Transit website (<https://www.soundtransit.org/system-expansion/tacoma-dome-link-extension/documents>). Paper copies are available for the cost listed below, which does not exceed the cost of reproduction:

- Executive Summary – free
- Draft EIS – \$25
- Technical Reports – \$15 each
- Conceptual Design Drawings (Appendix F) – \$15

To request paper copies or a flash drive of the documents, please contact Dominique Jones at 206-689-4783 or email [dominique.jones@soundtransit.org](mailto:dominique.jones@soundtransit.org). To review the documents at the Sound Transit Office, please call the Sound Transit librarian at 206-398-5344 weekdays from 8 a.m. to 5 p.m. to arrange an appointment.

Paper copies of the Draft EIS documents are also available for review at the following public places:

### King County Library System:

- Federal Way 320th Library, 848 S 320th Street, Federal Way
- Federal Way Library, 34200 1st Way S, Federal Way

### Pierce County Library System

- Fife Pierce County Library, 6622 20th Street E, Fife
- Milton/Edgewood Library, 900 Meridian E, Suite 29, Milton
- Tacoma Public Library, Mottet Branch, 3523 East G Street, Tacoma

Government and Community Centers

- Federal Way City Hall, 33325 8th Avenue S, Federal Way
- Federal Way Community Center, 876 S 333rd Street, Federal Way
- Milton City Hall/Milton Activity Center, 1000 Laurel Street, Milton
- Fife City Hall, 5411 23rd Street E, Fife
- Puyallup Tribe of Indians Tribal Headquarters, 3009 Portland Avenue E, Tacoma
- Tacoma City Hall, 747 Market Street, Tacoma
- Eastside Community Center (East Tacoma), 1721 E 56th Street, Tacoma

# Table of Contents

ES.1 Introduction.....ES-1

ES.2 Purpose and Need .....ES-4

    ES.2.1 Purpose of TDLE .....ES-4

    ES.2.2 Need for TDLE.....ES-5

    ES.2.3 TDLE Meets the Need .....ES-6

ES.3 Alternatives Considered .....ES-7

    ES.3.1 Alternatives Development Process .....ES-7

    ES.3.2 Build Alternatives .....ES-9

    ES.3.3 No-Build Alternative .....ES-34

ES.4 Avoidance, Minimization, and Mitigation Measures.....ES-35

ES.5 Significant and Unavoidable Adverse Impacts .....ES-37

ES.6 Other Environmental Considerations.....ES-38

    ES.6.1 Section 4(f) Resources .....ES-38

    ES.6.2 Environmental Justice.....ES-39

    ES.6.3 Commitment of Resources .....ES-40

ES.7 Tribal, Agency, and Public Involvement .....ES-40

    ES.7.1 Tribal Consultation.....ES-40

    ES.7.2 Chartered Group Engagement .....ES-41

    ES.7.3 Public Outreach .....ES-41

    ES.7.4 Agency Coordination .....ES-42

ES.8 Areas of Controversy and Issues to Be Resolved .....ES-43

ES.9 Opinion of Probable Cost .....ES-43

ES.10 Next Steps.....ES-45



Figures

Figure ES-1 Project Vicinity ..... ES-2

Figure ES-2 Link Light Rail System Expansion ..... ES-3

Figure ES-3 Project Milestones ..... ES-4

Figure ES-4 Alternatives Evaluated in the Draft EIS ..... ES-12

Figure ES-5 Federal Way Segment Alternatives ..... ES-14

Figure ES-6 South Federal Way Segment Alternatives..... ES-18

Figure ES-7 Fife Segment Alternatives ..... ES-24

Figure ES-8 Tacoma Segment Alternatives ..... ES-31

Figure ES-9 Project Public Review and Comment Process ..... ES-40

Tables

Table ES-1 Summary of TDLE Build Alternatives and Station and Design  
Options Evaluated in Draft EIS ..... ES-9

Table ES-2 Summary of Key Potential Impacts – Federal Way Segment..... ES-15

Table ES-3 Summary of Key Potential Impacts – South Federal Way Segment ..... ES-19

Table ES-4 Summary of Key Potential Impacts – Fife Segment ..... ES-25

Table ES-5 Summary of Key Potential Impacts – Tacoma Segment ..... ES-32

Table ES-6 Opinion of Probable Cost for TDLE in 2024 Dollars ..... ES-44

# Executive Summary

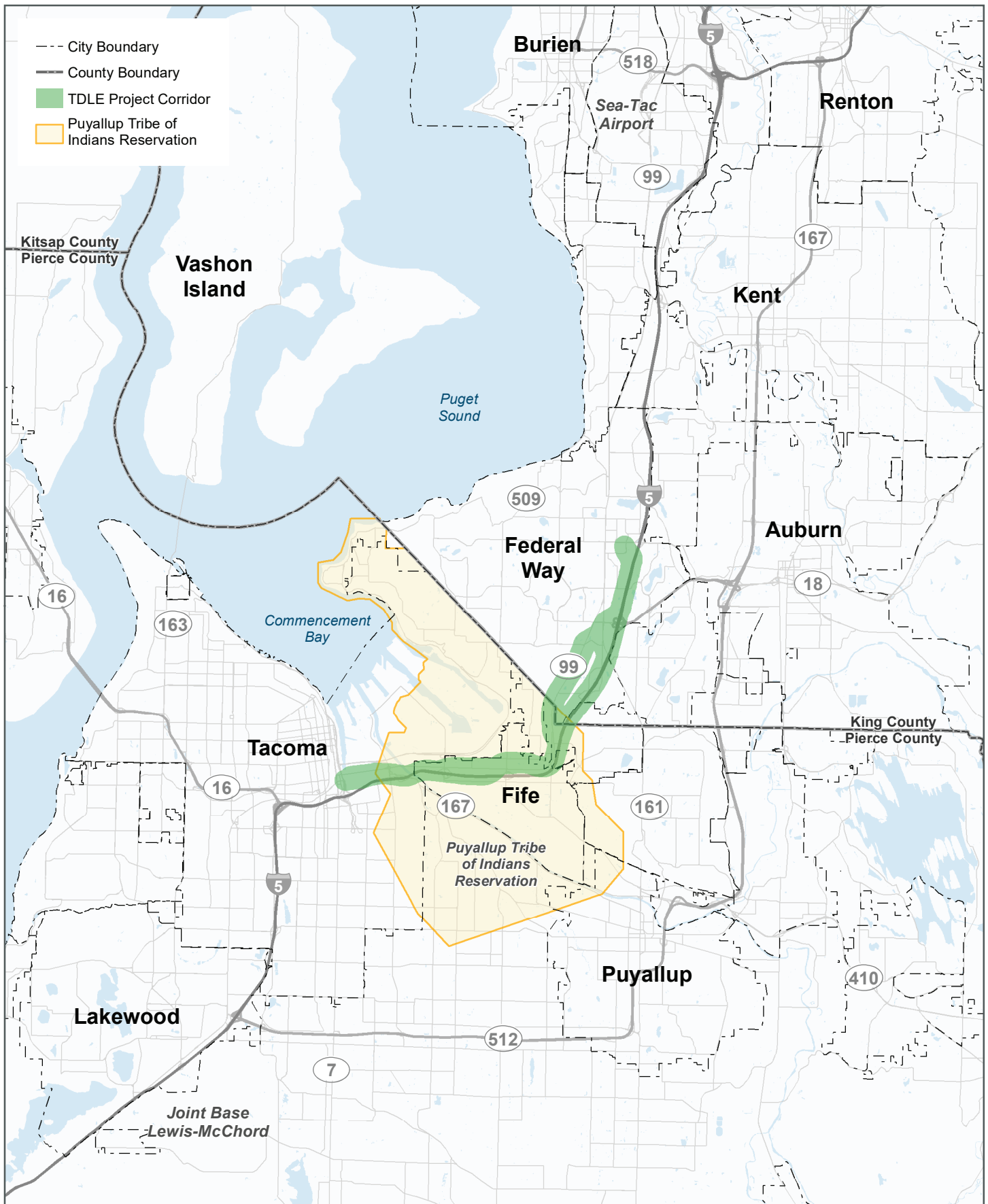
## ES.1 Introduction

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to build and operate the Tacoma Dome Link Extension (TDLE). TDLE would expand the regional light rail system approximately 10 miles south from the City of Federal Way in King County to Tacoma in Pierce County (Figure ES-1). TDLE would primarily have an elevated light rail profile and would include four stations. One station would be located in the South Federal Way area, one in the Fife area, and two in the Tacoma area. The project would also include a rail-only fixed-span bridge crossing the Puyallup River and two parking facilities (surface or structured parking) of approximately 500 stalls each at the stations in South Federal Way and Fife.

The TDLE corridor is located in the cities of Federal Way, Milton, Fife, and Tacoma and parts of King and Pierce counties, and it passes just south of the Port of Tacoma. The TDLE corridor crosses the ancestral and reservation lands of the Puyallup Tribe of the Puyallup Reservation (Puyallup Tribe of Indians) as well as its treaty-protected Usual and Accustomed Areas and Adjudicated Hunting and Fishing Grounds. The Puyallup Tribe of Indians is a federally recognized American Indian Tribe (Tribe) and, as a sovereign nation, government-to-government consultation is required with the Federal Transit Administration (FTA) as the lead federal agency before any project affecting their lands, treaty rights, or interests can be undertaken. In addition, FTA has initiated government-to-government consultation with the Muckleshoot Indian Tribe, the Nisqually Indian Tribe, and the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation), who also have Usual and Accustomed Areas and/or cultural resources interest in the project area.

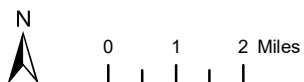
FTA and Sound Transit have concluded that the project has the potential to result in significant environmental effects and an Environmental Impact Statement (EIS) is required under the National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA). The EIS is a joint NEPA and SEPA document. FTA is the lead federal agency under NEPA, and Sound Transit is the lead agency for SEPA. Various alternatives to develop light rail in the corridor have been considered, evaluated, and compared with each other in this Draft EIS. This Executive Summary presents key findings of potential impacts and mitigation measures associated with the project alternatives.

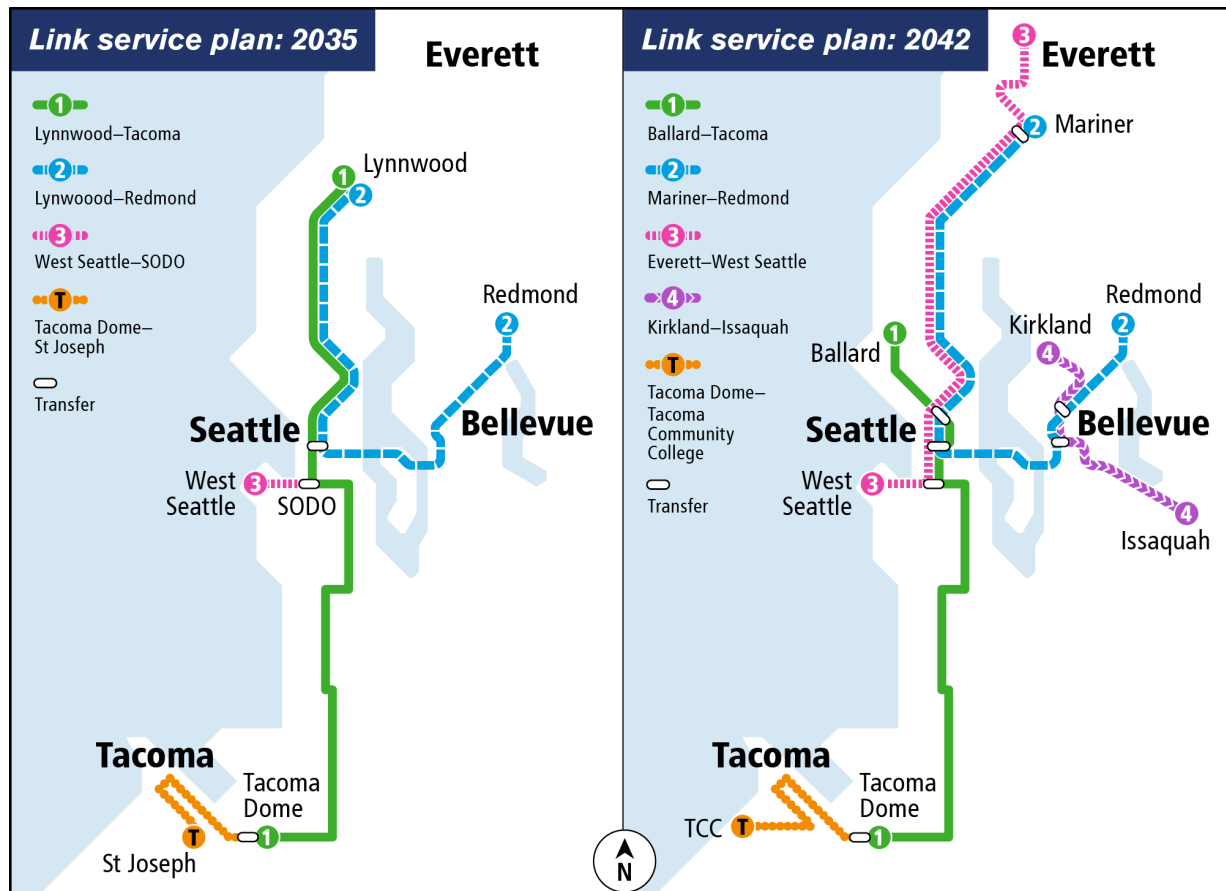
TDLE is the result of many years of regional planning and system development. In 1996, Sound Transit's Regional Transit Long-Range Vision identified a potential future light rail extension between Federal Way and Tacoma (Sound Transit 1996). The planning for TDLE developed as an element of Sound Transit 3, The Regional Transit System Plan for the Central Puget Sound, (Figure ES-2). TDLE would help implement the Puget Sound Regional Council's (PSRC) VISION 2050 (PSRC 2020) and Sound Transit's 2014 Regional Transit Long-Range Plan. Furthermore, TDLE would complete the southern segment of the long-envisioned regional light rail spine connecting the Central Puget Sound Region from Tacoma to Everett. A new light rail maintenance facility, the Operations and Maintenance Facility (OMF) South, would support the overall Sound Transit 3 regional system expansion, including TDLE. Sound Transit and FTA completed environmental review for OMF South with publication of the Final NEPA/SEPA EIS in June 2024, and issuance of FTA's Record of Decision (ROD) in August 2024.



Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2023).

**FIGURE ES-1**  
Project Vicinity





**Figure ES-2 Link Light Rail System Expansion\***

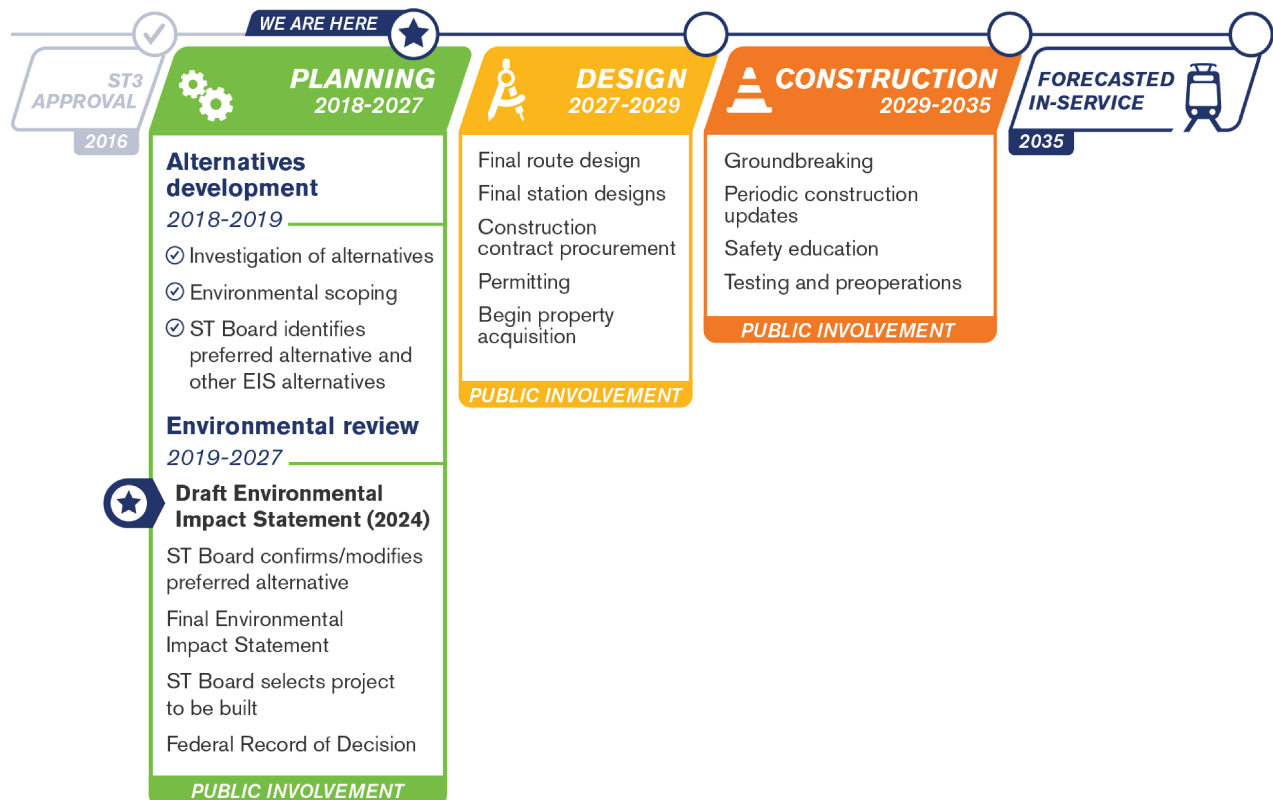
\*2042 is the current targeted schedule for completion of Sound Transit 3 projects.

PSRC's VISION 2050 anticipates population and employment in the Puget Sound region will continue to grow over the next 30 years (PSRC 2020). TDLE is an important component to achieving the regional growth plan, which envisions increasing transit ridership and concentrating new residences and jobs around high-capacity transit. To accommodate growth, TDLE would provide fast, reliable light rail connections to dense residential and job centers in the south Puget Sound area. Existing local transit connections in the project corridor include bus (Pierce Transit and King County Metro), light rail (T Line), and Sounder commuter rail services. Tacoma Dome Station, in particular, is a major transit hub, providing local and regional bus service, Sounder, T Line, and Amtrak passenger rail service, along with park-and-ride facilities.

The current long-range growth forecasts from PSRC inform elements of the Draft EIS analyses, such as ridership forecasts, projected vehicle trips, and nonmotorized activities.

Figure ES-3 shows the project milestones for TDLE. The schedule for final design, construction, and operation will be refined as the project nears the end of environmental review. As a result of reduced revenue resulting from the COVID-19 pandemic and higher real estate and construction costs, Sound Transit will not be able to deliver all Sound Transit 3 expansion projects on their original timelines. In August 2021, the Sound Transit Board (Board) adopted Resolution R2021-05, referred to as the system expansion realignment plan. The plan serves as a framework for delivering projects efficiently while addressing the affordability gap. The resolution establishes a target for beginning TDLE operations in 2032; however, due to the additional alternatives analysis

identified in Motion M2023-19, the beginning of operation is now projected to be later, in 2035. The resolution establishes affordable completion dates for parking facilities at both Fife and Federal Way stations in 2038, approximately 3 years after their forecasted in-service date. The realignment plan establishes an annual program review to evaluate cost savings and additional funding opportunities for the system expansion. As part of the annual program review, it directs Sound Transit staff to “identify opportunities and make recommendations to deliver flexible, innovative and affordable methods to get people to transit stations if structured parking facilities have to be delayed.” If opportunities are identified and funding is available, parking facilities could potentially be completed before 2038.



**Figure ES-3 Project Milestones**

## ES.2 Purpose and Need

### ES.2.1 Purpose of TDLE

The purpose of TDLE is to expand the Link light rail system from the Federal Way Downtown Station to the Tacoma Dome Station area in order to:

- Provide high-quality rapid, reliable, and efficient light rail transit service to communities in the project corridor, as defined through the local planning process and reflected in the Sound Transit 3 Plan (Sound Transit 2016a).
- Improve regional mobility by increasing connectivity and capacity in the TDLE corridor from the Federal Way Downtown Station to the Tacoma Dome Station area to meet projected transit demand.

- Connect the lands of the Puyallup Tribe of Indians and the cities of Federal Way, Milton, Fife, Tacoma to regional centers and destinations on the regional high-capacity transit system as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's Regional Transit Long-Range Plan (Sound Transit 2014).
- Implement a system that is technically and financially feasible to build, operate, and maintain.
- Expand mobility for the corridor and region's residents, which include transit-dependent, low-income, and minority populations.
- Encourage equitable and sustainable urban growth in station areas through support of transit oriented development and multimodal integration in a manner that is consistent with local land use plans and policies, including Sound Transit's Equitable Transit Oriented Development Policy and Sustainability policies (Sound Transit 2018 and 2019).
- Encourage convenient and safe nonmotorized access to stations, such as bicycle and pedestrian connections, consistent with Sound Transit's System Access Policy (Sound Transit 2013).
- Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built, and social environments.

## ES.2.2 Need for TDLE

The project is needed because:

- Chronic roadway congestion on Interstate 5 (I-5) and State Route (SR) 99 — two primary north-south highways connecting communities along the corridor — delays today's travelers, including those using transit, and degrades the reliability of bus service traversing the corridor, particularly during commute periods.
- These chronic, degraded traffic conditions are expected to continue to worsen as the region's population and employment grow.
- PSRC, the regional metropolitan planning organization, and local plans call for high-capacity transit in the corridor consistent with VISION 2050 (PSRC 2020) and Sound Transit's Regional Transit Long-Range Plan (Sound Transit 2014).
- South King and Pierce county residents and communities, including transit-dependent, low income, and minority populations, need long-term regional mobility and multimodal connectivity, as called for in the Washington State Growth Management Act (Revised Code of Washington [RCW] 36.70A.108).

### VISION 2050 on the COVID-19 pandemic and the Continuing Importance of Transit

Over the last decade, transit ridership has experienced robust growth, with the central Puget Sound region being one of only four regions across the country with consistent growth in transit boardings. While the COVID-19 pandemic caused sudden and dramatic drops in transit ridership and revenue and accelerated remote work environments, VISION 2050 growth assumptions, which is the basis for this Draft EIS, remains the same. Transit will continue to be a critical element for mobility as the region grows over the next 30 years.

The region's historic investment in transit, and continued investments across modes, are critical due to the increases in congestion and travel delay seen in the region over the past decade. Since 2010, the region has grown by over 440,000 residents and 381,000 jobs. Prior to the COVID-19 pandemic, delay on the region's freeway corridors had increased more than 50 percent since 2014, and the average travel time to work had continued to steadily increase across all modes, averaging around 30 minutes. Notably, the share of commuters with travel times over 60 minutes increased steeply and was higher than the share of commuters with travel times less than 10 minutes.



- Regional and local plans call for increased residential and/or employment density at and around high-capacity transit stations and for increased options for multimodal access.
- Environmental and sustainability goals of the State and region, as established in Washington state law and embodied in PSRC's VISION 2050 and the Regional Transportation Plan – 2018 (PSRC 2018), include reducing greenhouse gas (GHG) emissions by decreasing vehicle miles traveled (VMT).

Chapter 1 of the Draft EIS describes the need for TDLE in greater detail.

### **ES.2.3 TDLE Meets the Need**

The Puget Sound region has experienced tremendous growth, resulting in key roadway corridors between Federal Way and Tacoma being at or near capacity before the COVID-19 pandemic. Traffic volumes on these roadway corridors have returned to pre-pandemic levels. During the PM peak period, southbound traffic (the peak direction during the PM peak hour) is at or close to capacity between South Federal Way and Tacoma, even in the high-occupancy vehicle lane, resulting in travel delay for transit vehicles and general-purpose traffic. Congestion on I-5, SR 99, and key arterials is expected to increase and reduce bus service performance and reliability. Even with planned investments in both regional and local road improvement projects in the future, traffic is expected to worsen and increase travel time and delay. Any of the TDLE build alternatives would reduce overall regional VMT by approximately 228,000 miles per day and vehicle hours traveled by approximately 15,000 hours per day compared to the No-Build Alternative. With TDLE operating in the corridor, light rail would provide a reliable, congestion-free alternative to bus transit and single-occupancy vehicles by operating in exclusive right-of-way without the potential for at-grade crossing conflicts.

All TDLE build alternatives would provide a transit option for people to avoid chronic roadway congestion and travel delay on congested regional roadways such as I-5 and SR 99 by improving transit service frequency, reliability, and capacity with frequent two-way service on exclusive right-of-way for 21 hours a day. TDLE would connect south Puget Sound communities in Federal Way, Milton, Fife, Tacoma, the Puyallup Tribe of Indians, and surrounding cities with many Puget Sound regional destinations and growth centers, including Seattle-Tacoma International Airport and Downtown Seattle.

All TDLE build alternatives provide the high-capacity transit that is called for in PSRC, Sound Transit, and local agency plans, including PSRC VISION 2050. The TDLE build alternatives would generate an estimated 24,000 to 36,000 daily transit riders whose trips include using some or all of the TDLE system based on future ridership levels estimated before the pandemic; 11,000 to 16,000 of those would be new transit riders. By connecting the south Puget Sound area to the regional light rail system, TDLE would expand mobility in the corridor for the region's residents, including transit-dependent, low-income, and minority populations. TDLE is anticipated to have an overall positive impact on transit-dependent, low-income, and minority populations living within the study area by increasing transit reliability, access to transit, connectivity, and frequency, especially to those communities near the proposed station areas. Additional economic opportunities for these populations may result from improved connectivity between communities, including new jobs associated with the construction of the project or with new development indirectly spurred by local and regional investment in the light rail.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiency, 2) reducing passenger vehicle travel activity, 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle

technologies/efficiency. TDLE is expected to reduce dependency on single-occupancy vehicles, slow growth in VMT, conserve energy, and reduce GHG emissions while helping to achieve Washington State's emissions reduction goals (RCW 70.235.020).

## ES.3 Alternatives Considered

This Draft EIS compares the environmental effects of the TDLE alternatives, including a No-Build Alternative that considers the transportation system and the environment as they would exist if the proposed project were not built. The No-Build Alternative also provides a baseline against which to measure the potential impacts of the build alternatives. The TDLE build alternatives were identified by the Board after early scoping, the Alternatives Development process, scoping, and public and agency input.

### ES.3.1 Alternatives Development Process

The FTA is relying on the local planning process to inform the environmental review process under NEPA (23 Code of Federal Regulations [CFR] 450.318; NEPA Implementing Regulations 40 CFR Parts 1500-1508), consistent with federal regulations that allow for it, as well as the Moving Ahead for Progress in the 21st Century Act and the Fixing America's Surface Transportation Act that encourage it.

To identify alternatives to study in the TDLE EIS, Sound Transit completed an alternatives development process that began March 28, 2018, when Sound Transit published a notice of early scoping in the SEPA register, which initiated early scoping and started a 30-day comment period. Sound Transit conducted early scoping from April 2 through May 3, 2018. Early scoping is an optional step in the environmental review process intended to generate public, agency, and Tribal review and comments before formally preparing an EIS. Sound Transit asked for comments on:

- The route (alignment), stations, potential alternatives, benefits, and impacts for TDLE.
- The Purpose and Need Statement.

#### Key Definitions

**No-Build Alternative:** The No-Build Alternative includes a variety of changes to transit operations, roadways, nonmotorized infrastructure and transit facilities foreseeable in the future, but does not include any TDLE alignment guideway routes and stations.

**Alternatives:** An alternative is one means of accomplishing a project's purpose and need and, in the case of TDLE, includes guideway routes and stations. The purpose of an Environmental Impact Statement (EIS) is to identify and compare the potential environmental impacts for a range of reasonable alternatives that could be constructed (build alternatives)

**Preferred Alternative:** A preferred alternative may be identified by an agency in either a Draft or Final EIS. It shows the agency's preference for an alternative based on currently available information. It is not a final determination of what will be selected or built.

**Option:** This Draft EIS also evaluates several alignment or station "options" that could be incorporated into a particular alternative. Options represent variations that may cause different impacts in an area but are not stand-alone alternatives.

**Segment:** The term segment is used to describe a geographic portion of the TDLE corridor for purposes of evaluation. Each segment includes guideway, stations, and other elements of the project within that geographic area.

**NEPA:** The National Environmental Policy Act (NEPA) (42 United States Code 4321 et seq.) established procedural requirements to prepare detailed reports about the environmental impacts of proposed actions (or projects). NEPA ensures agencies consider the consequences of their proposed actions and inform the public about their decision making.

**SEPA:** The State Environmental Policy Act (SEPA) (Chapter 43.21C, Revised Code of Washington) establishes a process to identify and analyze alternatives, environmental impacts, and potential mitigation measures to aid in agency decision making.

**High-capacity transit:** High-capacity transit is a system of public transportation services within an urbanized region operating principally on exclusive rights-of-way; examples include light rail transit or express buses on exclusive bus ways and their supporting services.

Sound Transit used the early scoping comments to inform the set of station and alignment alternatives that were evaluated in a three-level screening process: prescreening, Level 1, and Level 2. FTA and Sound Transit initiated scoping under NEPA and SEPA with a Notice of Intent to prepare an EIS published in the Federal Register on March 26, 2019. The scoping process was conducted between March 26 and May 1, 2019. It allowed Tribes, agencies, and the public to comment on the project's Purpose and Need Statement, topics to study in the Draft EIS, and the proposed route and station alternatives to be evaluated. Additional information on outreach activities is included in Appendix B, Public Involvement, and detailed information on the development of the alternatives is included in Appendix I, Alternatives Development Supporting Documents.

In developing TDLE alternatives, Sound Transit evaluated over 50 alternatives and options. Most of the alternatives were variations on alignments that followed either I-5, SR 99 (also referred to as Pacific Highway), or other local streets parallel to I-5, and they included options on both sides of I-5 or in the median, with a variety of station siting options in the south Federal Way, Fife, east Tacoma, and Tacoma Dome areas.

Concepts were not evaluated beyond the prescreening phase if they were determined to be inconsistent with the project purpose and need or the Sound Transit 3 Plan, included circuitous routing that would add travel time to the high-capacity transit service, or were determined to be infeasible based on environmental constraints. Alternatives were then evaluated in the increasingly detailed Level 1 and Level 2 alternatives evaluation phases, using criteria based on the project purpose and need.

In July 2019, the Sound Transit Board identified the alternatives for study in this Draft EIS in Motions M2019-75 and M2019-77. The Board also identified a Preferred Alternative in the Federal Way and Tacoma segments, as well as in a portion of the Fife Segment. A preferred alternative is not a decision on the project to build. Rather the identification of a preferred alternative shows a preference for an alternative based on currently available information from the Alternatives Development process. The Draft EIS equally evaluates all build alternatives as well as a No-Build Alternative.

Through the progression of design and environmental review, Sound Transit identified the need to study additional alignment alternatives from near the South Federal Way Station through Milton to avoid known cultural resources adjacent to I-5, as well as additional station options in Fife to be outside of the flood plain mapped by the Federal Emergency Management Agency (FEMA). A public engagement period was held from February 27 to March 14, 2023, to share information about the potential additional alignment and station locations being considered. In March 2023 (Motion M2023-19), the Board identified additional alternatives along the SR 99 (Pacific Highway) corridor in the South Federal Way Segment as well as additional station options in Fife to study in the Draft EIS. The Board also removed the Preferred Alternative designation in the South Federal Way Segment. After consideration of the Draft EIS and public comments, the Board will identify the Preferred Alternative for evaluation in the Final EIS along with other alternatives. The Board will select the project to be built after the Final EIS is issued.

ES.3.2 Build Alternatives

This section describes the TDLE build alternatives and design options evaluated in this Draft EIS. The project includes:

- Approximately 10 miles of dedicated guideway extending across ancestral and reservation lands of the Puyallup Tribe of Indians, as well as the cities of Federal Way, Fife, Milton, and Tacoma, and unincorporated Pierce County. Most of the guideway would be elevated, and there would be no at-grade vehicle or pedestrian crossings.
- A total of four stations, one in South Federal Way, one in Fife, and two in Tacoma (one near Portland Avenue and one near the Tacoma Dome).
- A rail-only fixed-span bridge crossing the Puyallup River.
- Parking facilities with approximately 500 stalls each at the stations in South Federal Way and Fife, in either surface or garage park-and-ride configurations.

The TDLE build alternatives are evaluated in four segments: Federal Way, South Federal Way, Fife, and Tacoma. The TDLE alternatives and design options are shown in Figure ES-4 and described in Table ES-1. Italicized text indicates design options. Travel time between the Federal Way and Tacoma Dome stations is anticipated to be approximately 20 minutes. TDLE is targeted to begin operations in 2035; construction of the parking facilities at both Fife and Federal Way stations may be deferred until 2038 as a result of the realignment process approved by the Board in August 2021.

System Access Program

In September 2019, the Board provided \$40.6 million in the Sound Transit District to award funds to local jurisdictions and agencies that will lead the design, construction, operation, and maintenance of potential access projects in broader station areas. This program, called the System Access Program, is intended to fund projects that make it easier and more convenient for people to get to Sound Transit facilities. The potential nonmotorized and station access improvement projects have been identified, in consultation with local jurisdictions, to safely accommodate the projected increase in pedestrian and bicycle travel with TDLE. The potential nonmotorized projects are not part of TDLE, and no funding has been awarded by the Board for any of these potential access projects at this time. This Draft EIS does not evaluate the potential environmental impacts of these access projects. Once the access projects have been refined and identified by local jurisdictions in consultation with Sound Transit, the local agency will prepare the appropriate environmental review. Some of the nonmotorized improvements may be implemented by the Puyallup Tribe of Indians, cities, or others as lead agencies and require multi-agency funding partnerships to implement.

Table ES-1 Summary of TDLE Build Alternatives and Station and Design Options Evaluated in Draft EIS<sup>1</sup>

Alternative	Station Name	Station Location
<b>Federal Way (FW) Segment<sup>2</sup></b>		
FW Preferred Enchanted Parkway	Not applicable	Not applicable
<i>FW Preferred Enchanted Parkway with FW Design Option</i>	<i>Not applicable</i>	<i>Not applicable</i>

**Table ES-1 Summary of TDLE Build Alternatives and Station and Design Options Evaluated in Draft EIS (continued)**

Alternative	Station Name	Station Location
<b>South Federal Way (SF) Segment<sup>2, 3</sup></b>		
SF Enchanted Parkway	SF Enchanted Parkway Station	Enchanted Parkway S and S 352nd Street
	<i>SF 352nd Span Station Option</i>	<i>Enchanted Parkway S spanning S 352nd Street</i>
SF I-5	SF I-5 Station	I-5 and S 356th Street
SF 99-West <sup>4</sup>	SF 99-Enchanted Station	Enchanted Parkway S and S 352nd Street
<i>SF 99-West<sup>4</sup> with Porter Way Design Option</i>	<i>SF 99-Enchanted Station</i>	<i>Enchanted Parkway S and S 352nd Street</i>
SF 99-East <sup>4</sup>	SF 99-352nd Station	Between S 352nd Street and S 356th Street east of SR 99
<i>SF 99-East<sup>4</sup> with Porter Way Design Option</i>	<i>SF 99-352nd Station</i>	<i>Between S 352nd Street and S 356th Street east of SR 99</i>
<b>Fife Segment<sup>2</sup></b>		
Fife Pacific Highway	Preferred Fife Station	59th Avenue E between 15th Street E and 12th Street E
	<i>Fife 54th Avenue Station Option</i>	<i>West of 54th Avenue E between Pacific Highway and 12th Street E</i>
	<i>Fife 54th Span Station Option</i>	<i>Spanning 54th Avenue between Pacific Highway and 12th Street E</i>
Fife Pacific Highway Median (Fife Median)	Preferred Fife Station	59th Avenue E between 15th Street E and 12th Street E
	<i>Fife 54th Avenue Station Option</i>	<i>Design option for guideway alignment would be slightly further south between 54th and 51st Avenue E, with the station option west of 54th Avenue E between Pacific Highway and 12th Street E</i>
	<i>Fife 54th Span Station Option</i>	<i>Design option for guideway alignment would be slightly further south between 59th and 51st Avenue E, with the station option spanning 54th Avenue between Pacific Highway and 12th Street E</i>
Fife I-5	Preferred Fife Station	59th Avenue E between 15th Street E and 12th Street E
	<i>Fife 54th Avenue Station Option</i>	<i>Design option for guideway alignment would be slightly further south between 54th and 52nd Avenue E, with the station option west of 54th Avenue E between Pacific Highway and 12th Street E</i>
	<i>Fife 54th Span Station Option</i>	<i>Design option for guideway alignment would be slightly further south between 59th and 52nd Avenue E, with the station option spanning 54th Avenue between Pacific Highway and 12th Street E</i>

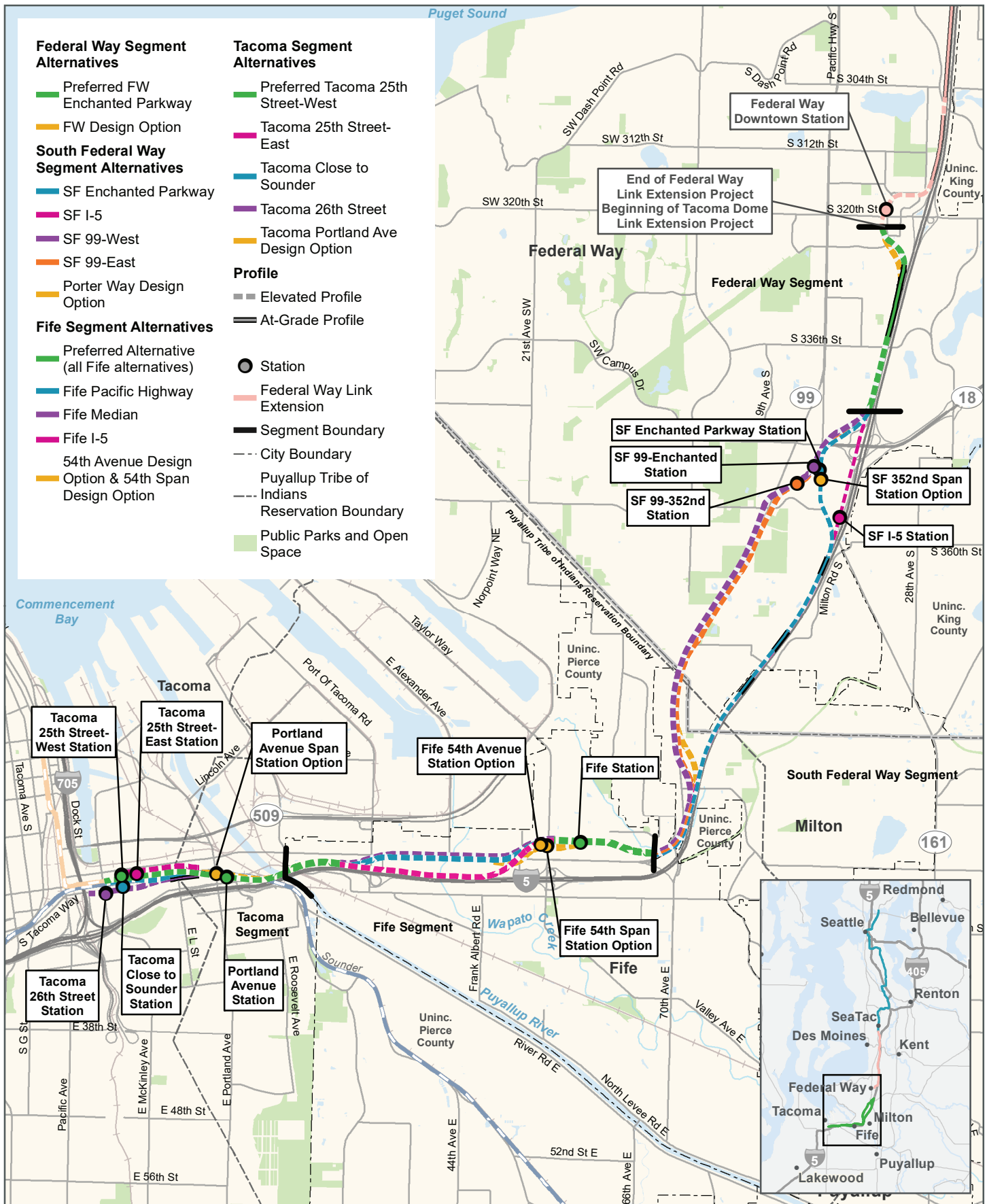
**Table ES-1 Summary of TDLE Build Alternatives and Station and Design Options Evaluated in Draft EIS (continued)**

Alternative	Station Name	Station Location
<b>Tacoma Segment</b>		
Preferred Tacoma 25th Street-West	Preferred Portland Avenue Station	E 26th Street and E Portland Avenue
	<i>Portland Avenue Span Station Option</i>	<i>Spanning E Portland Avenue north of E 26th Street</i>
	Preferred Tacoma 25th Street-West Station	Above E 25th Street between East G Street and East D Street
Tacoma 25th Street-East	Preferred Portland Avenue Station	E 26th Street and E Portland Avenue
	<i>Portland Avenue Span Station Option</i>	<i>Spanning E Portland Avenue north of E 26th Street</i>
	Tacoma 25th Street-East Station	Above E 25th Street between McKinley Avenue E and East G Street
Tacoma Close to Sounder	Preferred Portland Avenue Station	E 26th Street and E Portland Avenue
	<i>Portland Avenue Span Station Option</i>	<i>Spanning E Portland Avenue north of E 26th Street</i>
	Tacoma Close to Sounder Station	Adjacent to Sounder right-of-way at East G Street and E 25th Street
Tacoma 26th Street	Preferred Portland Avenue Station	E 26th Street and E Portland Avenue
	<i>Portland Avenue Span Station Option</i>	<i>Spanning E Portland Avenue north of E 26th Street</i>
	Tacoma 26th Street Station	Above E 26th Street at East D Street

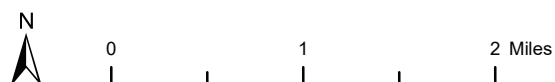
Notes:

- (1) Design and station options are shaded and shown in *italics*.
- (2) FW is used as the abbreviation for Federal Way, and SF is used as the abbreviation for South Federal Way in the alternative and station naming.
- (3) Parking at the stations in South Federal Way and Fife may be deferred until 2038. Depending on funding availability, however, some amount up to 500 spaces may be provided between 2035 and 2038.
- (4) The SF 99-Enchanted and SF 99-352nd station locations could be paired with either of the SF 99 alternatives.





Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2023).



**FIGURE ES-4**  
Alternatives Evaluated in the  
Draft Environmental Impact Statement  
*Tacoma Dome Link Extension*

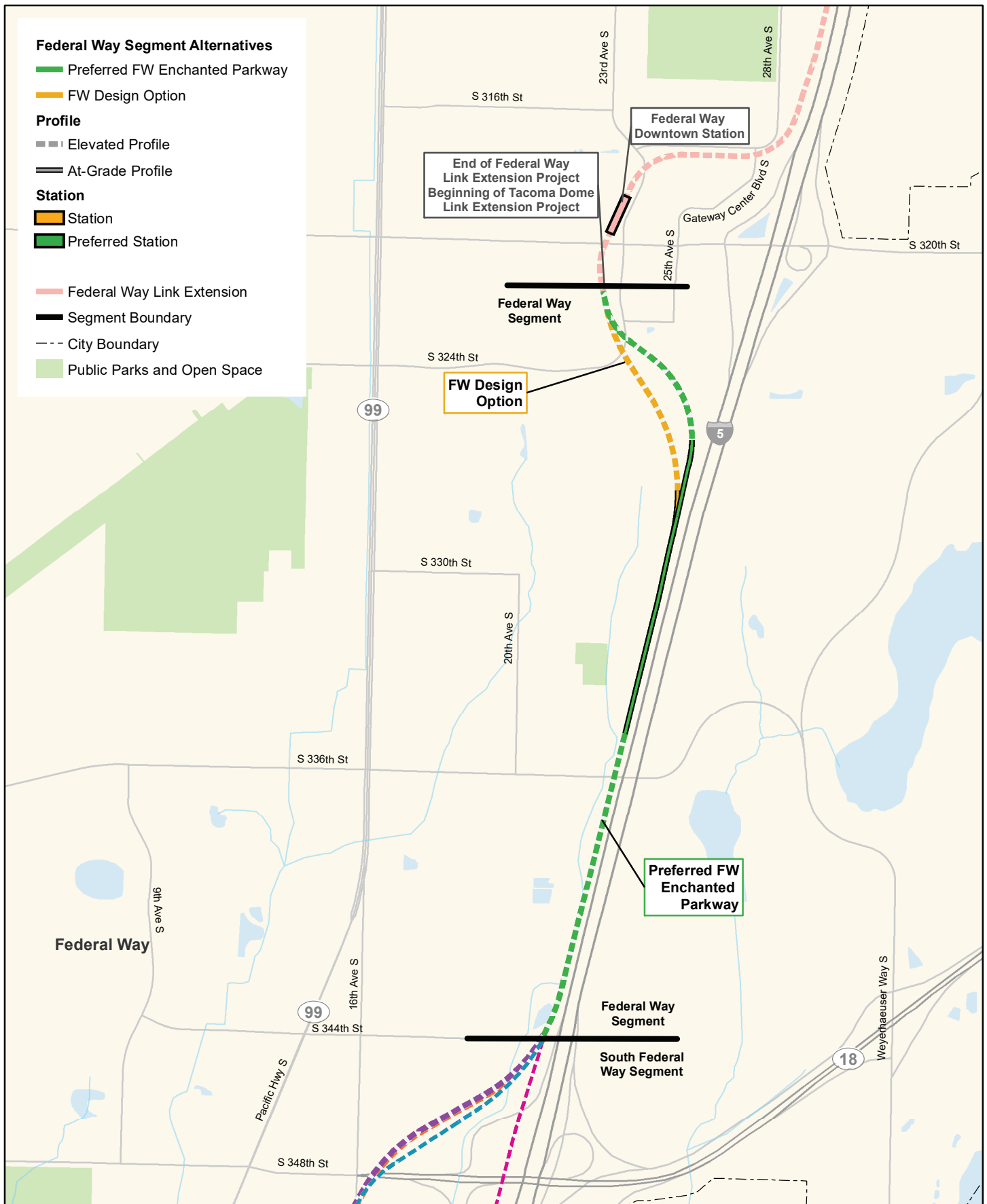
### ES.3.2.1 Federal Way Segment

The Federal Way Segment extends from just south of the Federal Way Downtown Station to S 344th Street. In the Federal Way Segment, there is one alternative, the Preferred Federal Way (FW) Enchanted Parkway Alternative, and one design option, the FW Design Option (Figure ES.5). The FW Design Option would have a larger track curve radius for the guideway near S 324th Street, which is preferable for operations and maintenance. The build alternative and design option in the Federal Way Segment are primarily elevated and do not include a station.

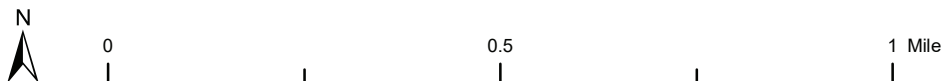
This Federal Way Segment also includes a separate Sound Transit project, OMF South, which includes the same 1.4-mile portion of guideway from the Federal Way Downtown Station to S 344th Street as the alternatives in the TDLE Federal Way Segment. Project development and environmental review for the OMF South and TDLE projects began concurrently; however, OMF South recently completed environmental review. In June 2024, FTA and Sound Transit issued the OMF South Final EIS, and the Sound Transit Board selected to build the Preferred South 336th Street Alternative. FTA issued the OMF South ROD in August 2024. Based on the Sound Transit Board action, the 1.4-mile portion of guideway is planned to be constructed as part of the OMF South project. Due to the timing of the OMF South Board Action in relation to the writing of this TDLE Draft EIS, construction and operations impacts for this portion of track (Preferred FW Enchanted Parkway Alternative) are included in the TDLE Draft EIS. OMF South is anticipated to be in operation prior to TDLE.

### Comparison of Federal Way Segment Alternatives

Overall, the Preferred FW Enchanted Parkway Alternative and the FW Enchanted Parkway Alternative with FW Design Option are similar. Table ES-2 identifies key impacts of the alternatives in this segment. While the FW Design Option would slightly reduce travel times, ridership and overall system travel times are expected to be similar. The FW Design Option would displace more residences compared to the Preferred FW Enchanted Parkway Alternative. The majority of the residential displacements would occur in the Belmor Mobile Home Park (Belmor), a manufactured home community. The FW Design Option would have greater visual impacts to sensitive viewers (Belmor residents) as compared to the Preferred FW Enchanted Parkway Alternative, due to the proximity to the guideway. Greater noise impacts at the curve near S 324th Street would occur with the FW Design Option; however, all noise impacts would be mitigated. The FW Design Option would also have slightly greater impacts to vegetation, wetland buffers, and streams compared to the Preferred FW Enchanted Parkway Alternative.



Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2023).



**FIGURE ES-5**  
Federal Way Segment  
Alternatives  
*Tacoma Dome Link Extension*

**Table ES-2 Summary of Key Potential Impacts – Federal Way Segment**

<b>Resource Impact Measure<sup>1</sup></b>	<b>Preferred FW Enchanted Parkway Alternative</b>	<b>FW Enchanted Parkway Alternative with FW Design Option</b>
<b>Acquisitions, Displacements, and Relocations</b> Parcels Affected	7	7
Residential Displacements	77	102
Business and Employee Displacements	0 businesses 0 employees	0 businesses 0 employees
<b>Visual Resources</b> Potential Visual Impacts	Vegetation loss and proximity to residential areas would result in visual impacts for some residents in Belmor and along the west side of I-5	Vegetation loss and proximity to residential areas would result in greater visual impacts for some residents in Belmor and along the west side of I-5
<b>Noise and Vibration</b> Number of Light Rail Noise Impacts (moderate and severe impacts)	25 impacts 0 after mitigation	42 impacts 0 after mitigation
Number of Vibration or Ground-Borne Noise Impacts	0 impacts	0 impacts
<b>Ecosystem Resources</b> Acres of Wetland Impacted (permanent)	0.54	0.56
Acres of Wetland Buffer Impacted (permanent)	2.78	3.18
Length of Stream Impacts in Feet (permanent)	900	1,000
Acres of Stream Buffers Impacted (permanent)	2.0	2.6
Potential Impacts on Vegetation (acres)	Long-term: 16 Construction: 47	Long-term: 18 Construction: 49

Note:

(1) Numbers or descriptions presented in this table are for permanent or long-term impacts, except where a construction impact is noted.

### ES.3.2.2 South Federal Way Segment

The South Federal Way Segment extends from S 344th Street to the City of Fife boundary near Wapato Way E in Pierce County. In the South Federal Way Segment, there are four alternatives: the South Federal Way (SF) Enchanted Parkway Alternative, which includes the SF Enchanted Parkway Station; the SF I-5 Alternative, which includes the SF I-5 Station; the SF 99-East Alignment, which includes the SF 99-352nd Station; and the SF 99-West Alternative, which includes the SF 99-Enchanted Station (Figure ES-6). This segment also includes a station option at S 352nd Street (SF 352nd Span Station Option) for the SF Enchanted Parkway Alternative. The SF 99-West and SF 99-East alternatives include the Porter Way Design Option, which would modify how the guideway curves from SR 99 to run adjacent to I-5 near Porter Way. The design option would minimize use of tribally owned properties.

All four build alternatives in South Federal Way are primarily elevated. All station alternatives in South Federal Way would include a parking garage or surface parking facility with approximately 500 spaces. A garage would have higher construction costs and less flexibility to transition to other uses in the future but would create more opportunities for new development near the station. A surface parking facility would have lower construction costs and the ability to be converted to other uses in the future, such as transit oriented uses, but would use more properties around the station to accommodate parking and have fewer opportunities for new development. Construction of the parking facilities could be deferred until 2038, depending on funding availability, 3 years after light rail service begins.

#### Comparison of South Federal Way Segment Alternatives

Table ES-3 identifies key impacts of the alternatives in the South Federal Way Segment. The SF Enchanted Parkway and SF I-5 alternatives would have no impact to historic built environment resources (historic structures or buildings); however, both would have unavoidable impacts to known culturally sensitive areas and resources in proximity to the I-5 corridor. During the development of alternatives, the Puyallup Tribe of Indians identified concerns with the proposed SF Enchanted Parkway and SF I-5 alternatives, stating that no mitigation would be sufficient to resolve impacts. Both the SF 99-West and SF 99-East alternatives would avoid impacts to known culturally sensitive areas and resources along the I-5 corridor, but may, depending on the alternative, adversely effect from two to four historic structures or buildings.

The SF Enchanted Parkway and SF I-5 alternatives would have fewer private property acquisitions (43 to 47) compared to the SR 99-West and SR 99-East alternatives (81 to 91) but would use more of the I-5 public right-of-way. The SF Enchanted Parkway Alternative would have the most residential displacements (40) of all South Federal Way build alternatives, and the SF 99-East and SF I-5 alternatives would have the least (two to three). The SF 99-East and SF 99-West alternatives would have the most business displacements (23 to 25), and the SF I-5 Alternative would have the least (seven). Some properties in the South Federal Way Segment have ownership or restrictive covenants that could limit use of the property by the project. The SF 99-West Alternative would affect more of these properties compared to the other South Federal Way Segment alternatives. The alignment of the Porter Way Design Option would minimize use of tribally owned properties but would have an additional crossing of the West Fork Hylebos Creek and additional impacts to stream buffers and mature native forest.

The SF Enchanted Parkway Alternative would have the greatest noise impacts (150), while the SF I-5 Alternative would have the least (nine). The SF 99-West and SF 99-East alternatives would have similar noise impacts (23 to 27), fewer than the SF Enchanted Parkway Alternative but more than the SF I-5 Alternative. All noise impacts can be mitigated, and the majority of them would be mitigated with noise barriers along the guideway.

The SF 99-East Alternative would have the most permanent wetland impacts (over 7 acres), and the SF 99-West Alternative would have similar but slightly fewer wetland impacts. The SF Enchanted Parkway Alternative would have the fewest permanent wetland impacts (less than 3 acres). The SF I-5 Alternative would have the most permanent impacts to streams in the South Federal Way Segment, and the SF Enchanted Parkway Alternative would have the least. The SF 99-West and SF 99-East would have similar potential stream impacts. The Porter Way Design Option would add additional stream and wetland impacts to both alternatives on the SR 99 corridor.

Ridership, which is anticipated to average 1,800 weekday boardings at the station location in South Federal Way, and travel time are expected to be similar for all TDLE build alternatives and options in the South Federal Way Segment.

The SF I-5 Station would have more limited access for nonmotorized transportation and transit connections for riders due to its location immediately west of I-5. The SF Enchanted Parkway Station, SF 352nd Span Station Option, and SF 99-Enchanted Station, would all have similar nonmotorized access and transit connections with station facilities located on the northwest corner of Enchanted Parkway S and S 352nd Street. They would have more potential for traffic conflicts at driveway access points and would have additional street crossings from residential areas compared to the SF 99-352nd Station. The SF 99-352nd Station between S 352nd Street and S 356th Street would have easier access for nonmotorized users, residential areas, and transit connections compared to the other station locations.

During construction, where the TDLE guideway runs parallel to or within the median of SR 99, there could be extended lane closures for 1 to 2.5 years. Construction of the SF 352nd Span Station Option would also cause additional closures on S 352nd Street when the station is being built over the roadway.





**FIGURE ES-6**  
South Federal Way Segment  
Alternatives  
*Tacoma Dome Link Extension*

Table ES-3 Summary of Key Potential Impacts – South Federal Way Segment

Resource Impact Measure <sup>1</sup>	SF Enchanted Parkway Alternative <sup>2, 3</sup>	SF I 5 Alternative <sup>2</sup>	SF 99 West Alternative <sup>2</sup>	SF 99 West Alternative with Porter Way Design Option <sup>2</sup>	SF 99 East Alternative <sup>2</sup>	SF 99 East Alternative with Porter Way Design Option <sup>2</sup>
<b>Transportation</b> Number of Intersections Requiring Mitigation	1	1	1	1	1	1
Potential Street Closures during Construction	No extended street closures during construction.  With the SF 352nd Span Station Option, an extended closure may occur on S 352nd Street.	No extended street closures during construction.	Extended lane restrictions, periodic nighttime, and weekend closures on SR 99.	Similar to SF 99-West Alternative.	Extended lane restrictions (especially for construction in median), periodic nighttime and weekend closures on SR 99.	Similar to SF 99-East Alternative.
<b>Acquisitions, Displacements, and Relocations</b> Parcels Affected	47	43	91	89	88	81
Residential Displacements	40	3	17	17	2	2
Business and Employee Displacements	14 businesses 200 employees	7 businesses 40 employees	25 businesses 250 employees	23 businesses 240 employees	25 businesses 300 employees	24 businesses 290 employees

Table ES-3 Summary of Key Potential Impacts – South Federal Way Segment (continued)

Resource Impact Measure <sup>1</sup>	SF Enchanted Parkway Alternative <sup>2, 3</sup>	SF I 5 Alternative <sup>2</sup>	SF 99 West Alternative <sup>2</sup>	SF 99 West Alternative with Porter Way Design Option <sup>2</sup>	SF 99 East Alternative <sup>2</sup>	SF 99 East Alternative with Porter Way Design Option <sup>2</sup>
<b>Visual Resources</b> Potential Visual Impacts	Long-term impacts would occur on the tree-lined portions of I-5, as seen by motorists, due to tree removal.  Vegetation loss and proximity to residential areas near 69th Avenue E.	Long-term impacts would occur on the tree-lined portions of I-5, as seen by motorists, due to tree removal.  Vegetation loss and proximity to residential areas near 69th Avenue E.	Long-term impacts due to vegetation loss and proximity to a higher number of sensitive viewers, including Montessori Academy, some residences between S 356th and S 373rd streets, Spring Valley Mobile Home Park, Gethsemane Cemetery visitors, and residential area near 69th Avenue E.	Similar to SF 99-West Alternative, slightly higher visual impact due to more vegetation removal north of Porter Way.	Long-term impacts due to vegetation loss and proximity to sensitive viewers, including Montessori Academy, some residences between S 356th and S 373rd streets, Spring Valley Mobile Home Park, Gethsemane Cemetery visitors, and residential area near 69th Avenue E.	Similar to SF 99-East Alternative, slightly higher visual impact due to more vegetation removal north of Porter Way.
<b>Noise and Vibration</b> Number of Light Rail Noise Impacts (moderate and severe impacts)	150 impacts 0 after mitigation	9 impacts 0 after mitigation	27 impacts 0 after mitigation	24 impacts 0 after mitigation	26 impacts 0 after mitigation	23 impacts 0 after mitigation
Number of Vibration or Ground-Borne Noise Impacts	0 impacts	0 impacts	0 impacts	0 impacts	0 impacts	0 impacts
<b>Ecosystem Resources</b> Acres of Wetland Impacted (permanent)	2.65	3.77	6.31	6.68	7.33	7.75
Acres of Wetland Buffer Impacted (permanent)	5.79	8.52	11.18	11.38	10.95	11.13
Length of Stream Impacts in Feet (permanent)	150	950	500	600	600	700
Acres of Stream Buffers Impacted (permanent)	2.8	5.6	3.7	4.3	4.3	4.7

Table ES-3 Summary of Key Potential Impacts – South Federal Way Segment (continued)

Resource Impact Measure <sup>1</sup>	SF Enchanted Parkway Alternative <sup>2, 3</sup>	SF I 5 Alternative <sup>2</sup>	SF 99 West Alternative <sup>2</sup>	SF 99 West Alternative with Porter Way Design Option <sup>2</sup>	SF 99 East Alternative <sup>2</sup>	SF 99 East Alternative with Porter Way Design Option <sup>2</sup>
Potential Impacts on Vegetation (acres)	Long-term: 48 Construction: 80	Long-term: 51 Construction: 68	Long-term: 49 Construction: 87	Long-term: 46 Construction: 94	Long-term: 54 Construction: 91	Long-term: 51 Construction: 99
<b>Historic Resources</b> Number of Historic Properties with Potential Adverse Impacts	0	0	4	4	2	2
<b>Section 4(f)<sup>4</sup></b> Number of Resources Used	1	1	4	4	2	2

Note:

- (1) Numbers or descriptions presented in this table are for permanent or long-term impacts, except where a construction impact is noted.
- (2) Numbers presented for each alternative include the corresponding station. Table ES-1 defines the station or station option that corresponds to each alternative.
- (3) Summary of Impacts for the SF Enchanted Parkway Alternative with SF 352nd Span Station Option is the same as with the SF Enchanted Parkway Station with the exception of the extended street closure on S 352nd Street during construction.
- (4) Section 4(f) resources include publicly owned parks and recreation areas that are open to the public; publicly owned wildlife and waterfowl refuges; and historic sites of national, state, or local significance.

### ES.3.2.3 Fife Segment

The Fife Segment is entirely within the reservation and trust lands of the Puyallup Tribe of Indians and the City of Fife. The segment extends from the eastern city limit near Wapato Way E to the western city limit near the Puyallup River. In the Fife Segment, there are three alternatives: the Fife Pacific Highway, Fife Median, and Fife I-5 alternatives (Figure ES-7). These three alternatives share common sections that are identified as part of the Preferred Alternative, but no preferred alternative has been identified between the 54th Avenue E and Port of Tacoma Road vicinity. Each of the alternatives could connect to either the 54th Avenue Design Option or 54th Span Design Option.

The Fife Station is part of the Preferred Alternative. The elevated station would be north of 15th Street E and west of 59th Avenue E. The 54th Avenue Design Option includes a slight variation to the guideway configuration between 59th Avenue E and 51st Avenue E to accommodate the Fife 54th Avenue Station Option on the west side of 54th Avenue E. The 54th Span Design Option includes a similar variation to accommodate the Fife 54th Span Station Option that spans 54th Avenue E. The station in Fife would include approximately 500 parking spaces provided in either a garage or surface parking configuration and have the same considerations for cost and development as described in Section ES.3.2.2. Construction of the parking facilities could be deferred until 2038, depending on funding availability, 3 years after light rail service begins.

West of the 54th Avenue E, the Fife Pacific Highway Alternative would continue west until it crosses Pacific Highway E and would follow the south side of Pacific Highway E to just west of the Port of Tacoma Road, where it would curve to meet the north side of I-5. The Fife Median Alternative would follow a similar path, except it would continue in the median of Pacific Highway E instead of on the south side. The Fife I-5 Alternative would curve to the southwest, crossing Pacific Highway E near 51st Avenue E, and then follow the north side of I-5.

#### Comparison of Fife Segment Alternatives

The Fife Pacific Highway Alternative and Fife Median Alternative would both affect a similar number of properties (66 to 69, depending on the design option), with more properties affected than the Fife I-5 Alternative (54 to 56, depending on the design option), which uses more public right-of-way. The Fife Pacific Highway Alternative would displace the most businesses (38 to 54). The Fife Median Alternative would displace the fewest businesses (12 to 28) with impacts primarily related to roadway and sidewalk realignment that would not require relocations.

For the Fife Median Alternative, Pacific Highway E would be reconfigured, altering traffic circulation, property access, and traffic signals/traffic control, but would maintain similar lane configurations as the existing conditions. Unlike the Fife I-5 Alternative and the Fife Pacific Highway Alternative, the Fife Median Alternative would prohibit left turns at some midblock intersections and driveways on Pacific Highway E. Larger trucks that previously accessed business driveways from the existing two-way left-turn lane may be required to approach affected businesses using routes that do not require left turns.

The Fife Pacific Highway and Fife Median alternatives would have more light rail noise impacts (179 to 186) before mitigation than the Fife I-5 Alternative (90 to 97); however, these impacts are all anticipated to be mitigated, primarily using noise barriers on the guideway.

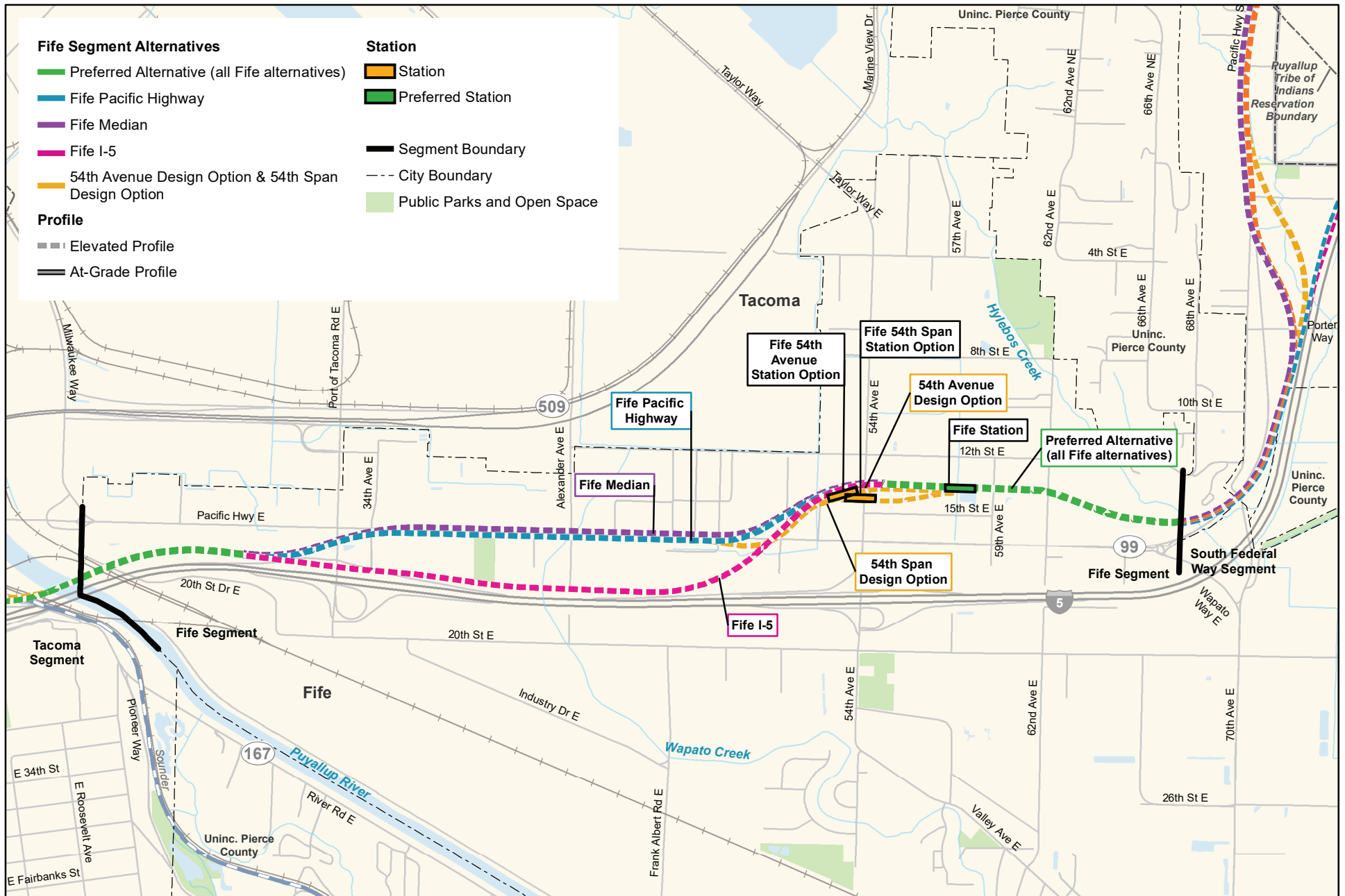
All three alternatives in the Fife Segment would remove one historic property, a single-family residence at 62nd Avenue E. The Fife Pacific Highway Alternative would also remove a second historic property, the Pick-Quick Drive In. The Fife Median Alternative would use a portion of the Pick-Quick Drive In parking lot but would not adversely affect the building. The Fife I-5 Alternative would avoid impacts to the Pick-Quick Drive In property.

All three Fife Segment alternatives would have potential visual quality impacts for church visitors on 62nd Avenue E and residents along 15th Street E. West of 54th Avenue E, the Fife Pacific Highway Alternative would have greater potential for impact to visual quality for businesses in proximity to the guideway compared to the Fife Median Alternative. The Fife I-5 Alternative elevated guideway would impact views of Mount Rainier for some residents at Chateau Rainier apartments and would obscure views for drivers and businesses along I-5, including car dealerships. All Fife Segment alternatives would travel over the perimeter of the planned Cappa Park, either along SR 99 or I-5, but would not directly impact planned park facilities.

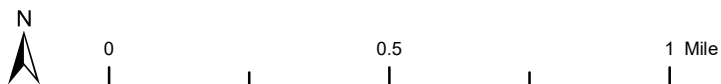
The City of Fife's ongoing planning efforts for a new City Center contemplates more vibrant mixed-use development and creation of an area oriented to the new light rail station. The preferred Fife Station location is more central to potential development in the proposed City Center subarea east of 54th Avenue E, whereas the Fife 54th Avenue and 54th Span station options are in the northeast corner of the proposed City Center subarea. Ridership, which is anticipated to average 2,600 weekday boardings at the station location in Fife, and travel time are expected to be similar for all of the alternatives in the Fife Segment.

The preferred Fife Station would be located within the FEMA 100-year floodplain boundary of Fife Ditch Tributary 1 and would place fill within the floodplain. The Fife 54th Avenue Station Option and the Fife 54th Span Station Option would each be located outside of the current mapped FEMA floodplain boundary; however, this boundary is based on historical mapping and does not reflect subsequent development and current topographic conditions. Because the elevations of the Fife 54th Avenue Station Option and the Fife 54th Span Station Option are similar to the preferred Fife Station, the future flood risk is likely similar among all the station locations. Also, all three station locations lie within a future flood risk area due to sea level rise projections.

During construction, the Fife Pacific Highway Alternative and Fife Median Alternative would require additional intermittent road closures west of 54th Avenue E wherever the guideway crosses or is in the median of the street, including at larger intersections along Pacific Highway, such as Willow Road E, Alexander Avenue E, and Port of Tacoma Road. These closures would cause greater restrictions for customers and employees to access local businesses compared to the Fife I-5 Alternative. For all build alternatives, the 54th Span Station Option would likely require intermittent nighttime and weekend closures over a longer period compared to the other station locations.



Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2023).



**FIGURE ES-7**  
Fife Segment  
Alternatives

Tacoma Dome Link Extension



Table ES-4 Summary of Key Potential Impacts – Fife Segment

Resource Impact Measure <sup>1</sup>	Fife Pacific Highway Alternative <sup>2</sup>	Fife Pacific Highway with 54th Avenue Design Option <sup>2</sup>	Fife Pacific Highway with 54th Span Design Option <sup>2</sup>	Fife Median Alternative <sup>2</sup>	Fife Median with 54th Avenue Design Option <sup>2</sup>	Fife Median with 54th Span Design Option <sup>2</sup>	Fife I-5 Alternative <sup>2</sup>	Fife I 5 with 54th Avenue Design Option <sup>2</sup>	Fife I 5 with 54th Span Design Option <sup>2</sup>
<b>Transportation</b> Number of Intersections Requiring Mitigation <sup>3</sup>	5	9	9	5	9	9	5	9	9
Potential Street Closures during Construction	No extended street closures, but some access restrictions during construction.	No extended street closures, but some access restrictions during construction.	No extended street closures, but additional restrictions and closures at 54th Avenue E for span station construction.	Full and partial closures along Pacific Highway for guideway construction in the median.	Full and partial closures along Pacific Highway for guideway construction in the median.	Full and partial closures along Pacific Highway for guideway construction in the median. Additional restrictions and closures at 54th Avenue E for span station construction.	No extended street closures during construction.	No extended street closures during construction.	No extended street closures but additional restrictions and partial closures at 54th Avenue E for span station construction.
<b>Acquisitions, Displacements, and Relocations</b> Parcels Affected	66	69	69	66	69	69	56	54	56
Residential Displacements	3	3	3	3	3	3	3	3	3
Business and Employee Displacements	38 businesses 280 employees	50 businesses 160 employees	54 businesses 250 employees	12 businesses 240 employees	24 businesses 120 employees	28 businesses 210 employees	17 businesses 120 employees	34 businesses 230 employees	40 businesses 270 employees
<b>Visual Resources</b> Potential Visual Impacts	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E and apartment residences at Chateau Rainier.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E, and apartment residences at Chateau Rainier.	Guideway in proximity to church visitors on 62nd Avenue E and residences on 15th Street E, and apartment residences at Chateau Rainier.

Table ES-4 Summary of Key Potential Impacts – Fife Segment (continued)

Resource Impact Measure <sup>1</sup>	Fife Pacific Highway Alternative <sup>2</sup>	Fife Pacific Highway with 54th Avenue Design Option <sup>2</sup>	Fife Pacific Highway with 54th Span Design Option <sup>2</sup>	Fife Median Alternative <sup>2</sup>	Fife Median with 54th Avenue Design Option <sup>2</sup>	Fife Median with 54th Span Design Option <sup>2</sup>	Fife I-5 Alternative <sup>2</sup>	Fife I 5 with 54th Avenue Design Option <sup>2</sup>	Fife I 5 with 54th Span Design Option <sup>2</sup>
<b>Noise and Vibration</b> Number of Light Rail Noise Impacts before Mitigation (moderate and severe impacts)	181 impacts 0 after mitigation	179 impacts 0 after mitigation	186 impacts 0 after mitigation	181 impacts, 0 after mitigation	179 impacts 0 after mitigation	186 impacts 0 after mitigation	91 impacts 0 after mitigation	90 impacts 0 after mitigation	97 impacts 0 after mitigation
Number of Vibration or Ground-Borne Noise Impacts	2 impacts 0-2 after mitigation <sup>4</sup>	2 impacts 0-2 after mitigation <sup>4</sup>	2 impacts 0-2 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>	1 impact 0-1 after mitigation <sup>4</sup>
<b>Water Resources</b> FEMA Floodplain Impacts	Station would be located in the FEMA floodplain for the Fife Ditch Tributary 1.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.	Station would be located in the FEMA floodplain for the Fife Ditch Tributary 1.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.	Station would be located in the FEMA floodplain for the Fife Ditch Tributary 1.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.	Outside of FEMA floodplain, but at similar elevation. Likely similar future flood risk.
<b>Ecosystem Resources</b> Acres of Wetland Impacted (permanent)	2.24	2.04	2.29	2.24	2.04	2.29	3.16	2.96	3.20
Acres of Wetland Buffer Impacted (permanent)	3.76	3.70	3.90	3.76	3.70	3.90	3.38	3.28	3.48
Length of Stream Impacts in Feet (permanent)	450	350	350	450	350	350	350	250	250
Acres of Stream Buffers Impacted (permanent)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Potential Impacts on Vegetation (acres)	Long-term: 39 Construction: 62	Long-term: 41 Construction: 55	Long-term: 43 Construction: 55	Long-term: 39 Construction: 62	Long-term: 41 Construction: 55	Long-term: 43 Construction: 55	Long-term: 34 Construction: 64	Long-term: 33 Construction: 63	Long-term: 35 Construction: 63

Table ES-4 Summary of Key Potential Impacts – Fife Segment (continued)

Resource Impact Measure <sup>1</sup>	Fife Pacific Highway Alternative <sup>2</sup>	Fife Pacific Highway with 54th Avenue Design Option <sup>2</sup>	Fife Pacific Highway with 54th Span Design Option <sup>2</sup>	Fife Median Alternative <sup>2</sup>	Fife Median with 54th Avenue Design Option <sup>2</sup>	Fife Median with 54th Span Design Option <sup>2</sup>	Fife I-5 Alternative <sup>2</sup>	Fife I-5 with 54th Avenue Design Option <sup>2</sup>	Fife I-5 with 54th Span Design Option <sup>2</sup>
<b>Historic Resources</b> Number of Historic Properties with Potential Adverse Impacts	2	2	2	1	1	1	1	1	1
<b>Section 4(f)</b> Number of Resources Used <sup>5</sup>	2	2	2	1	1	1	1	1	1

## Notes:

- (1) Numbers or descriptions presented in this table are for permanent or long-term impacts, except where a construction impact is noted.
- (2) Numbers presented for each alternative include the corresponding station. Table ES-1 defines the station or station option that corresponds to each alternative.
- (3) Although additional intersections would operate below standard, no mitigation is required where an intersection would operate below standards in both the No-Build and build alternatives, unless it would operate at LOS E or worse and travel times are degraded by more than 10 percent.
- (4) The vibration impacts identified for the alternatives in the Fife Segment will require additional testing inside the structure and modeling to determine the extent of the impacts and potential mitigation measures available for low frequency vibration levels.
- (5) All Fife Segment alternatives would travel over the perimeter of the planned Cappa Park, either along SR 99 or I-5, but would not directly impact planned facilities. The alternatives along SR 99 may result in modifications to or constraints to access or egress from the planned park.

### ES.3.2.4 Tacoma Segment

The Tacoma Segment includes the area from the Fife/Tacoma city limit to near the existing Tacoma Dome Station, through reservation and trust lands of the Puyallup Tribe of Indians. The Portland Avenue station area would be within the reservation lands. The Puyallup Tribe of Indians is a signatory to the Medicine Creek Treaty of 1854, which outlines their fishing rights in areas throughout the Puget Sound. Their treaty fishing rights include the area of the Puyallup River over which the TDLE corridor would cross. In addition, the Puyallup River is a designated navigable water of the United States.

There are four alternatives in the Tacoma Segment (Figure ES-8). These alternatives would each have the same alignment and design option from the Fife/Tacoma city limit to the Portland Avenue Station. All TDLE build alternatives would cross the Puyallup River north of I-5. Two bridge types are being studied for the crossing: a long-span bridge that would completely span the river and a pier-supported bridge that would have piers in the river. The long-span bridge (segmental box girder) would be approximately 60 feet higher than the nearby I-5 bridge deck, and the pier-supported bridge would be about 10 feet higher than the I-5 bridge deck. Other structure types for a long-span bridge could include a cable-stayed, extradosed, truss, or arch. Bridge type would be determined during final design based on various factors, including engineering feasibility and constraints, environmental effects, cost, and coordination with Tribes and other agencies on permitting requirements. The operation of the TDLE project would not affect navigation on the Puyallup River or Thea Foss Waterway. For safety during construction, navigation channels on the Puyallup River would be restricted around active construction areas but would remain open.

After crossing the Puyallup River, all TDLE build alternatives would travel northwest to serve the elevated Portland Avenue Station located between E Portland Avenue and E Bay Street. All build alternatives could include the Portland Avenue Design Option or Portland Avenue Span Station Option. The design option would shift the guideway just north of the intersection of E 26th Street and E Portland Avenue. This would allow for the station option to span E Portland Avenue.

West of the Portland Avenue Station, the four build alternatives follow different alignments. The Preferred Tacoma 25th Street-West Alternative would continue west to E 25th Street and then travel above E 25th Street with a station located between East G Street and East D Street. The Tacoma 25th Street-East alternatives would follow the same alignment above E 25th Street except the station would be located just east of East G Street. The Tacoma Close to Sounder Alternative would run parallel along the south side of the Sounder tracks until McKinley Avenue, where it would cross over to the north side of the Sounder tracks to a station located above the site of Freighthouse Square. The Tacoma 26th Street Alternative would also run parallel along the south side of the Sounder tracks until just west of I-705, with a station located over the intersection of East D Street and E 26th Street, south of Freighthouse Square.

### Comparison of Tacoma Segment Alternatives

The Tacoma Close to Sounder Alternative would displace the most businesses (43) because it would displace Freighthouse Square, which includes approximately 29 businesses. While the small businesses in Freighthouse Square could remain with the other alternatives, they would experience access restrictions during construction. Additionally, all build alternatives would displace approximately six businesses near the Portland Avenue Station.

At the Puyallup River crossing, the potential impacts would differ based on the type of bridge selected: a long-span or a pier-supported bridge. If the long-span bridge option is selected, the long-term impacts of the bridge on aquatic habitats would be minimal because no in-water structures would be needed. If the pier-supported bridge is selected, the channel hydraulics, FEMA floodway, and natural sediment transport patterns could be impacted. In addition, in-water work for pier installation would carry the risk of adverse effects on fish (including species listed under the Endangered Species Act) and marine mammals. Bridge piers and bridge structures can cast shade and create areas of slow water, both of which may provide favorable habitat conditions for predators of special-status fish. The light rail bridge would increase the amount of river habitat affected by the piers and overhead structures. The Puyallup River and other fish-bearing streams in the study area are within the treaty-protected Usual and Accustomed fishing areas of the Puyallup Tribe of Indians. Project-related impacts on streams could affect the productivity of Tribal fisheries.

The new light rail bridge crossing the Puyallup River would be viewed in front of or with the I-5 bridge. There are many different users of the river who would be sensitive to visual change. The long-span bridge would be more prominent to sensitive viewers and could obstruct views of Mount Rainier, with the elevated structure approximately 60 feet higher than the nearby I-5 bridge deck, depending on the type of long-span bridge. The pier-supported bridge would be about 10 feet higher than the I-5 bridge deck and viewed more in line with the I-5 bridge, making the structure less prominent.

West of E Portland Avenue on E 25th Street, the Preferred Tacoma 25th Street-West and Tacoma 25th Street-East alternatives would both create a tunnel-like effect, with the guideway located directly over the roadway, and would alter views of existing built elements for street-level viewers. This tunnel effect is greater for the Tacoma 25th Street-West Alternative because it extends further west along E 25th Street to the Freighthouse Square area. Visual impacts would occur in this area, which has higher pedestrian traffic and viewer sensitivity. The Tacoma 26th Street and Tacoma Close to Sounder alternatives both would pass through a less densely developed area south of the Sounder tracks. The Tacoma Close to Sounder Alternative would change views for Sounder commuters but would result in less dramatic visual changes along E 25th Street. The Tacoma 26th Street Alternative would be visually prominent overhead for patrons and employees at businesses along E 26th Street and would be seen from a distance from the Tacoma Dome area and from the LeMay Museum.

Ridership and travel time are expected to be similar for all build alternatives in the Tacoma Segment. Ridership is anticipated to average 1,200 weekday boardings at the station location near Portland Avenue and 10,800 at the station location near the Tacoma Dome.

The Portland Avenue Station would be situated closer to the undercrossing of I-5 at E Bay Street and further from E Portland Avenue than the Portland Avenue Span Station. This would create better access for nonmotorized users and would be closer to the developments and the neighborhood to the south of the station. Nonmotorized access and bus bays connecting to the Portland Span Station Option would be primarily on E Portland Avenue, which has high vehicle volumes, including freight.

The Tacoma 25th Street-West and Tacoma 25th Street-East stations would both have fewer business displacements (nine) than the other station locations but more visual and construction impacts on E 25th Street. The Tacoma Close to Sounder Station would have fewer visual and construction impacts and better nonmotorized access to the station; however, it would displace more businesses (43), specifically in Freighthouse Square. The Tacoma Close to Sounder Station would provide more potential for an integrated transit hub compared to the other

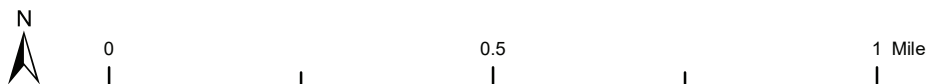
alternatives, with the ability to transfer between Sounder, Amtrak, and Link services as well as the T Line and buses nearby. The Tacoma 26th Street Station would require users to cross an at-grade rail crossing to access transit service on E 25th Street and connect to other transit modes in the Tacoma Dome station area. Due to the slope of the hillside, E 26th Street is higher than E 25th Street, which would make multimodal connections harder to integrate compared to the other station locations along E 25th Street.

Construction of the Preferred Tacoma 25th Street-West Alternative or Tacoma 25th Street-East Alternative would require column and guideway construction, along with utility relocations, that would require temporary relocation or closure of the T Line terminus station on the north side of E 25th Street and close the track connecting to the T Line's OMF. Temporary relocation of the track connection to the OMF or a modified vehicle service schedule that minimizes construction stoppage duration and allows intermittent ingress/egress to the OMF would be required. The Tacoma Close to Sounder and Tacoma 26th Street alternatives would avoid impacts to the T Line. However, with the Tacoma Close to Sounder Alternative, it is anticipated that the Amtrak and Sounder stations in Freighthouse Square would need to be reconstructed. This would require temporarily relocating the stations to the west end of Freighthouse Square during construction.

Table ES-5 identifies key impacts of the alternatives in this segment. For all build alternatives in the Tacoma Segment, the terminus design will accommodate the potential for future Link light rail system expansion.



Data Sources: King and Pierce County, Cities of Federal Way, Fife, Milton, Tacoma (2023).



**FIGURE ES-8**  
Tacoma Segment  
Alternatives

Tacoma Dome Link Extension



Table ES-5 Summary of Key Potential Impacts – Tacoma Segment<sup>1,2</sup>

Resource Impact Measure <sup>3</sup>	Preferred Tacoma 25th Street West <sup>4</sup>	Tacoma 25th Street East <sup>4</sup>	Tacoma Close to Sounder <sup>4</sup>	Tacoma 26th Street <sup>4</sup>
<b>Transportation</b> Number of Intersections Requiring Mitigation <sup>5</sup>	8	8	8	8
Potential Street Closures during Construction	20th Street E could be partially closed for about 9 months, with full closures on nights and weekends for construction and realignment.  Full closure of E 25th Street for up to 3 years.	20th Street E could be partially closed for about 9 months, with full closures on nights and weekends for construction and realignment.  Full closure of E 25th Street for up to 3 years.	20th Street E could be partially closed for about 9 months, with full closures on nights and weekends for construction and realignment.  Full closure of East L Street bridge for about 1 year.	20th Street E could be partially closed for about 9 months, with full closures on nights and weekends for construction and realignment.  Full closure of East L Street bridge for about 1 year.  Full closure of E 26th Street for up to 3 years.
<b>Acquisitions, Displacements, and Relocations</b> Parcels Affected	35	31	34	51
Business and Employee Displacements	9 businesses 90 employees	9 businesses 90 employees	43 businesses 140 employees	13 businesses 100 employees
<b>Visual Resources</b> Potential Visual Impacts	Guideway structure directly over E 25th Street would create a “tunnel effect.”	Guideway structure directly over E 25th Street would create a “tunnel effect.”	Guideway structure near the station would create a “tunnel effect.”	Guideway would be prominent to businesses on E 26th Street, west of East D Street, visible from the Tacoma Dome and LeMay Museum.
<b>Noise and Vibration</b> Number of Light Rail Noise Impacts (moderate and severe impacts)	3 impacts 0 after mitigation	3 impacts 0 after mitigation	2 impacts 0 after mitigation	3 impacts 0 after mitigation
Number of Vibration or Ground-Borne Noise Impacts	0 impacts	0 impacts	0 impacts	0 impacts

Table ES-5 Summary of Key Potential Impacts – Tacoma Segment (continued)

Resource Impact Measure <sup>3</sup>	Preferred Tacoma 25th Street West <sup>4</sup>	Tacoma 25th Street East <sup>4</sup>	Tacoma Close to Sounder <sup>4</sup>	Tacoma 26th Street <sup>4</sup>
<b>Water Resources</b> Floodplain Impacts	Potential impacts to channel hydraulics, FEMA floodway, and natural sediment transport for the Puyallup River crossing with pier-supported bridge option.	Potential impacts to channel hydraulics, FEMA floodway, and natural sediment transport for the Puyallup River crossing with pier-supported bridge option.	Potential impacts to channel hydraulics, FEMA floodway, and natural sediment transport for the Puyallup River crossing with pier-supported bridge option.	Potential impacts to channel hydraulics, FEMA floodway, and natural sediment transport for the Puyallup River crossing with pier-supported bridge option.
<b>Ecosystem Resources</b> Acres of Wetland/Impacted (permanent)	< 0.01	< 0.01	< 0.01	< 0.01
Acres of Wetland Buffer Impacted (permanent)	0.05	0.05	0.05	0.05
Acres of Puyallup River Impacted (permanent)	0.4	0.4	0.4	0.4
Acres of Puyallup River Buffer Impacted (permanent)	0.1	0.1	0.1	0.1
Potential Impacts on Vegetation (acres)	Long-term: 21 Construction: 45	Long-term: 20 Construction: 45	Long-term: 19 Construction: 31	Long-term: 21 Construction: 33
<b>Section 4(f)</b> Number of Resources Used	0	0	0	0

## Notes:

- (1) Summary of Impacts for all build alternatives in the Tacoma Segment includes both the long-span and pier-supported bridge options over the Puyallup River.
- (2) Summary of Impacts for all build alternatives in the Tacoma Segment includes both the Portland Avenue Station and Portland Avenue Span Station Option.
- (3) Numbers or descriptions presented in this table are for permanent or long-term impacts, except where a construction impact is noted.
- (4) Numbers presented for each alternative include the corresponding station. Table ES-1 defines the station or station option that corresponds to each alternative.
- (5) Although additional intersections would operate below standard, no mitigation is required where an intersection would operate below standards in both the No-Build and build alternatives, unless it would operate below LOS E and travel times are degraded by more than 10 percent.

### ES.3.2.5 Minimum Operable Segments and Interim Terminus for TDLE

TDLE would expand the regional light rail system approximately 10 miles south, from Federal Way in King County to Tacoma in Pierce County. TDLE could be operated in phases, depending on available funding or other factors. In the event it is not possible to build the entire TDLE, the station in South Federal Way or the station in Fife could serve as minimum operable segments (M.O.S.s) or interim terminuses, if project implementation is phased. Each could serve as a M.O.S. or interim terminus station because they each include transit integration opportunities and a 500-stall parking facility. They are also close to regional highways for access, including I-5, SR 18, and SR 167. They would both have tail tracks extending approximately 500 feet beyond the end of the station platform and would be designed to accommodate future extensions. Parking facilities at the South Federal Way and Fife stations would open by 2038, 3 years after the project is open for service, per the realigned capital program.

In general, building a shorter route alignment would result in fewer environmental impacts compared to the full TDLE, given that part of the project would not be constructed (such as portions of guideway, two to three stations, and ancillary facilities such as parking and traction power substations). Air pollution may be slightly higher if the full project were not built because more people would continue to drive vehicles and there would not be as great a reduction in VMT. Both stations would build the same number of stalls in the parking facility as the full build alternative. The station design would need to accommodate additional bus volumes as some bus routes could terminate at the station.

Ridership for the M.O.S. or interim terminus at the station in South Federal Way is forecast to have approximately 5,000 daily trips, and ridership for the interim terminus at the station in Fife is forecast to have 8,700 daily trips. Both scenarios would have lower ridership compared to the full TDLE project to station near the Tacoma Dome, which is forecast to have 24,000 to 36,000 daily trips.

### ES.3.3 No-Build Alternative

The No-Build Alternative would be the transportation system and environment as they would exist in 2042 without the proposed project. The No-Build Alternative provides a baseline condition for comparing impacts of the build alternatives. The year 2042 is used as the analysis year because it is consistent with full buildout of the light rail capital projects included in the Sound Transit 3 Plan. The No-Build Alternative includes projects, funding packages, and proposals in the Central Puget Sound Region that are planned to occur with or without TDLE. No-Build improvements include roadway and transit actions by Sound Transit, state, regional, and local agencies that are currently funded, and those that are likely to be implemented based on approved and committed funding.

The No-Build Alternative includes the following major rail improvements by Sound Transit:

- Extension north to Everett, including stations.
- Extension south to Federal Way, including stations.
- Extension of East Link to downtown Redmond, including stations.
- Extension to West Seattle, including stations.
- Extension to Ballard with new downtown Seattle tunnel, including stations.
- New Link light rail line from south Kirkland to Issaquah, including stations.

- Infill Link stations at NE 130th Street, S Graham Street, and S Boeing Access Road in Seattle.
- Sounder commuter rail South line capacity enhancements and extension to Tillicum and DuPont.
- A light rail OMF facility in the north service area and in the south service area.
- Extension of T Line to Tacoma Community College, including stations.

The No-Build Alternative also includes the following WSDOT major regional transportation projects listed in the State Transportation Improvement Plan (WSDOT 2020) and PSRC Regional Capacity Projects List (PSRC 2018):

- I-5 SR 161/SR 18 Triangle Project – Phase 2.
- SR 167 Completion Project from SR 161 to SR 509.
- I-5/Port of Tacoma Road Interchange.
- I-5/54th Avenue E Interchange.
- I-5 High Occupancy Vehicle Projects near Fife/Tacoma.

Future bus rapid transit service provided by Pierce Transit (STREAM) and King County Metro that connects to the corridor is also included in the No-Build Alternative. The bus service network used in the Draft EIS analysis is consistent with future service plans developed by King County, Pierce Transit, and Sound Transit. These plans are subject to change by the transit agencies depending on funding availability and other factors. The Transportation Technical Report (Appendix J1 of this Draft EIS) describes the major projects as well as local agency projects assumed in the No-Build Alternative.

The No-Build Alternative would not accomplish the purpose and need of the project. Traffic volumes in the study area, based on annual growth rates described in Appendix J1, are projected to increase by approximately 7 to 13 percent by 2042 because of regional population growth. Under the No-Build Alternative, transit, including Sounder commuter rail and local and regional bus services, would continue to be focused on peak-direction trips to and from downtown Seattle. As a result, the No-Build Alternative would result in increased single-occupancy vehicle travel, with an accompanying increase in GHG emissions and traffic congestion.

## **ES.4 Avoidance, Minimization, and Mitigation Measures**

Sound Transit is committed to complying with all applicable federal, state, and local environmental regulations, following best management practices, and designing TDLE in a way that avoids or minimizes adverse impacts from the project. Those avoidance and minimization measures are committed to as part of the project and are identified along with reasonable mitigation measures that would reduce or eliminate significant adverse impacts. Avoidance and minimization measures, as well as additional mitigation measures, are identified throughout the Draft EIS. Mitigation measures address adverse impacts that remain after avoidance and minimization measures are applied.

Potential mitigation measures are included in Chapters 3 and 4 of the Draft EIS. Final mitigation measures would be included in the Final EIS and as environmental commitments in FTA's ROD for the project.

The following is a summary of select potential mitigation measures for adverse project impacts.

**Transportation:** Traffic mitigation would be needed at up to 18 intersections, depending on the alternative. Mitigation could include providing turn lanes and turn pockets, optimizing signal phasing, installing traffic signals, or contributing a proportionate share towards intersection improvements, in coordination with the affected jurisdiction.

**Acquisitions, Displacements, and Relocations:** Sound Transit would compensate affected property owners and provide relocation assistance in accordance with Sound Transit's Real Estate Property Acquisition and Relocation Policy, Procedures, and Guidelines (Sound Transit 2017), which follows applicable federal and state laws and regulations, including, but not limited to, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended). Property impacted temporarily for construction would be restored to its previous condition.

**Visual:** Visual impacts would be minimized and mitigated by using landscaping or other features to help screen or soften views of the TDLE guideway, stations, or other project components, in coordination with the affected jurisdiction.

**Noise:** Noise impacts from light rail operations would be mitigated by using sound walls, wheel squeal reduction measures and special trackwork, installing building sound insulation, and other measures if appropriate, following the Sound Transit Link Noise Mitigation Policy.

**Vibration:** Vibration impacts from light rail operations would be mitigated by placing a resilient layer between the track and the soil and the use of resilient fasteners. The vibration impacts identified for the alternatives in the Fife Segment would require additional testing and modeling to refine the projections and to determine the extent of the impacts and the types of potential mitigation measures available.

**Ecosystems:** During final design and permitting, Sound Transit would first try to avoid and minimize impacts on wetlands and streams through design measures and best management practices. Where impacts are unavoidable, Sound Transit would mitigate them in accordance with applicable federal regulations, local critical area ordinances, and permit requirements. Sound Transit would provide compensatory mitigation to achieve no net loss of ecosystems functions and use the King County In-Lieu Fee Program (Mitigation Reserves Program), other formal mitigation banks, offsite compensatory mitigation, or project-specific mitigation developed concurrently by Sound Transit and approved by the appropriate regulatory agencies.

**Water Resources:** In the Fife Segment, adequate compensatory storage volumes would need to be determined to avoid impacts to the natural storage functions of the floodplain. If the pier-supported Puyallup River Crossing bridge is selected in the Tacoma Segment, the project design would need to minimize the footprint and lateral surface areas of the pier structures in the main channel of the river or include the addition of riprap and other rocks to stabilize the riverbed to prevent or minimize scour. Placement of fill or obstructing structures along the edges of the river's main channel could require creation of compensatory flood storage to offset any loss of storage volume capacity. Depending on which alternative is selected and designed, Sound Transit would follow the appropriate federal and local requirements regarding floodplains, preservation of natural flood storage features and dry flood-proofing of structures.

**Historic and Archaeological Resources:** FTA determined and the State Historic Preservation Office concurred that the project would result in an adverse effect to a National Register of Historic Places (NRHP)-eligible archaeological site and a NRHP-eligible residential property. FTA and Sound Transit, in consultation with the Advisory Council on Historic Preservation, the State Historic Preservation Office, Tribes, and other consulting parties, are developing a Section 106 Programmatic Agreement to resolve adverse effects to historic properties for TDLE per 36 CFR 800.6 and 800.14.

A draft Programmatic Agreement that sets out the procedure for consultation, review, and compliance is included as an attachment to Appendix J5, Historic and Archaeological Resources Technical Report. After consideration of public comments and consultation with Tribes, agencies, and consulting parties, a revised draft of the Programmatic Agreement will be included in the Final EIS. Once the project to be built is selected by the Board, the Programmatic Agreement will be executed prior to FTA issuing a ROD for TDLE.

Mitigation for impacts to historic and archaeological resources are in the early stages of coordination and will be further developed and documented in the Programmatic Agreement during preparation of the Final EIS. Mitigation measures for historic resources may include, but are not limited to, preparing additional documentation or interpretation for the resource or designing and installing an interpretive display or exhibit.

Sound Transit will address potential impacts to previously unknown archaeological resources through a phased archaeological work plan that would occur in coordination with Tribes and the State Historic Preservation Office. This preconstruction inventory work would be phased to coordinate with property acquisitions and project construction according to the process outlined in the Cultural Resources Survey and Inventory Plan and specified in the Section 106 Programmatic Agreement. The agreement would include an Archaeological Treatment Plan to address the discovery of historic and archaeological resources during project activities. Should NRHP-eligible properties be identified as the project advances, FTA would apply the adverse effect criteria to determine effects to resources. In summary, FTA, in coordination with Sound Transit and in consultation with Tribes, the State Historic Preservation Office, and other consulting parties, would implement terms of the Programmatic Agreement to address treatment of cultural resources and resolve adverse effects as the project moves forward.

## ES.5 Significant and Unavoidable Adverse Impacts

With the avoidance, minimization, and potential mitigation measures described in Chapter 3, Transportation Environment and Consequences, and Chapter 4, Affected Environment and Environmental Consequences, significant adverse impacts would be avoided for most alternatives.

Long-term permanent impacts of TDLE that may not be fully mitigated include:

- The use of at least one Section 4(f) resource and an adverse effect to at least one NRHP-eligible property.
- Impacts to known cultural resources in the South Federal Way Segment for the SF Enchanted Parkway and SF I-5 alternatives and in the Tacoma Segment for all alternatives in the vicinity of the Puyallup River could be encountered.
- Visual impacts from removing mature vegetation, including forested areas adjacent to the guideway, would occur for all build alternatives. This would result in long-term visual impacts that would not immediately be mitigated by replacement vegetation or landscaping. There may be locations along the elevated guideway where direct view impacts of the project on adjacent sensitive viewers cannot be mitigated or screened.

- Impacts to mature forest and other native vegetation, which would result in a loss of habitat. The loss of mature forested habitat may not be immediately mitigable by replacement vegetation or restoration actions.

Temporary impacts during construction would not be avoidable and could be significant and adverse in some locations, including:

- The potential impacts to fish, marine mammals, and other aquatic species from in-water work for pier installation and pile driving related to the pier-supported bridge option for crossing the Puyallup River.
- Temporary but long-term lane or roadway closures, loss of parking, and noise. Detour routes could reduce the impact of roadway closures, although delays, congestion, and inconvenience would still occur. Lane and road closures would also require temporary transit bus diversions. The regional movement of freight and goods could be impacted where construction activities affect access to I-5 and SR 99/Pacific Highway.
- Impacts on businesses in the TDLE study area from construction activities. Negative impacts could include reduced sales resulting from changes in traffic, access, parking, and visibility because patrons might choose to avoid construction areas or have greater difficulty accessing retail businesses near construction activity.
- Temporary relocation of the Amtrak and Sounder Station at Freighthouse Square for the Tacoma Close to Sounder Alternative.
- Temporary relocation or closure of the T Line terminus station on the north side of E 25th Street and the connecting track to the T Line's OMF with the Preferred Tacoma 25th Street-West Alternative or Tacoma 25th Street-East Alternative.

## ES.6 Other Environmental Considerations

### ES.6.1 Section 4(f) Resources

Section 4(f) of the Department of Transportation Act of 1966, as amended (23 CFR Part 774, codified in 49 United States Code [U.S.C.] § 303 and generally referred to as "Section 4(f)"), protects publicly owned parks, recreation areas, and wildlife and waterfowl refuge, as well as historic and archaeological resources.

Under Section 4(f) FTA cannot approve a transportation project that will "use" a Section 4(f) resource unless it determines that:

- There is no feasible and prudent avoidance alternative to the use of the land from the property and the project includes all possible planning to minimize harm to the property resulting from such use; or
- The use of the property, including any measures to minimize harm committed to by the applicant, will have a *de minimis* impact on the property.

Potential Section 4(f) resources in the study area are described in Section 3 of Appendix D, Individual Section 4(f) Evaluation. No Section 4(f) resources would be used in the Federal Way Segment. In the South Federal Way Segment, all of the build alternatives would use at least one Section 4(f) resource: the SF Enchanted Parkway and SF I-5 alternatives would require the use of one Section 4(f) resource; the SF 99-West Alternative, with or without the Porter Way Design Option, could result in the use of up to four Section 4(f) resources, including a school, stables, residences, and signage associated with a motel (Daffodil Motel); and the SF 99-East



Alternative, with or without the Porter Way Design Option, could result in the use of up to two Section 4(f) resources, including the same stables and residence that could be impacted by the SF 99-West Alternative, as well as an additional historic residence.

Up to two Section 4(f) resources in the Fife Segment could be used by TDLE, depending on the alternative. All of the build alternatives in the Fife Segment would result in the use of a historic single-family residence at 62nd Avenue E. The Fife Pacific Highway Alternative would also require the use of the Pick-Quick Drive In.

No Section 4(f) resources would be used in the Tacoma Segment with any of the build alternatives.

The build alternatives represent Sound Transit's best attempt at minimizing and avoiding Section 4(f) resources. The build alternatives balance the purpose and need of the project against potential impacts, while providing a range of alternatives for the public to consider and from which FTA and Sound Transit can choose. As design for TDLE progresses, Sound Transit will continue to look for opportunities to reduce project impacts, including impacts on Section 4(f) resources.

## **ES.6.2 Environmental Justice**

This Draft EIS analyzes environmental justice, as required by Department of Transportation Order 5610.2C and other federal orders. This analysis addresses whether the TDLE build alternatives would result in disproportionate and adverse effects on minority and/or low-income populations. The analysis, included in Appendix C, Environmental Justice, also discusses the potential benefits of TDLE to minority and/or low-income populations, as well as the specific outreach efforts made during project development to involve these populations.

The population in the TDLE study area has a higher percentage of low-income and minority persons than the Sound Transit Service District. Specifically, within the TDLE segments, minority populations generally range from approximately 50 to 60 percent, and low-income populations range from approximately 25 to 40 percent, whereas the minority population in the Sound Transit District is approximately 42 percent and the low-income population is approximately 20 percent.

Most project impacts would be limited, and others would be minimized through the implementation of effective mitigation measures. TDLE build alternatives would benefit people served by the project, including minority and low-income residents, by increasing access to high-quality rapid, reliable, and efficient light rail transit service areas, which would provide more access to jobs and other destinations and improved transit travel times. Although all populations would have access to these benefits to the same extent, the benefit would be greater for minority and low-income populations because these groups are more likely to use transit. Survey data from 2018 to 2019 identified that approximately 43 percent of Sound Transit ridership across all modes (Link light rail, Regional Express bus, and Sounder) are from minority groups, many of whom use transit for more than commuting purposes (Sound Transit 2022a and 2022b). Approximately 22 percent of minority riders and 13 percent of non-minority riders made less than \$33,000 annually. Low-income is defined as the percentage of a block group's population in households where the household income is less than or equal to twice the federal poverty level, which in 2018 was \$24,280 for an individual. Additionally, data from the American Public Transportation Association indicate that, in 2007, approximately 60 percent of all transit passengers were from minority groups (APTA 2007).

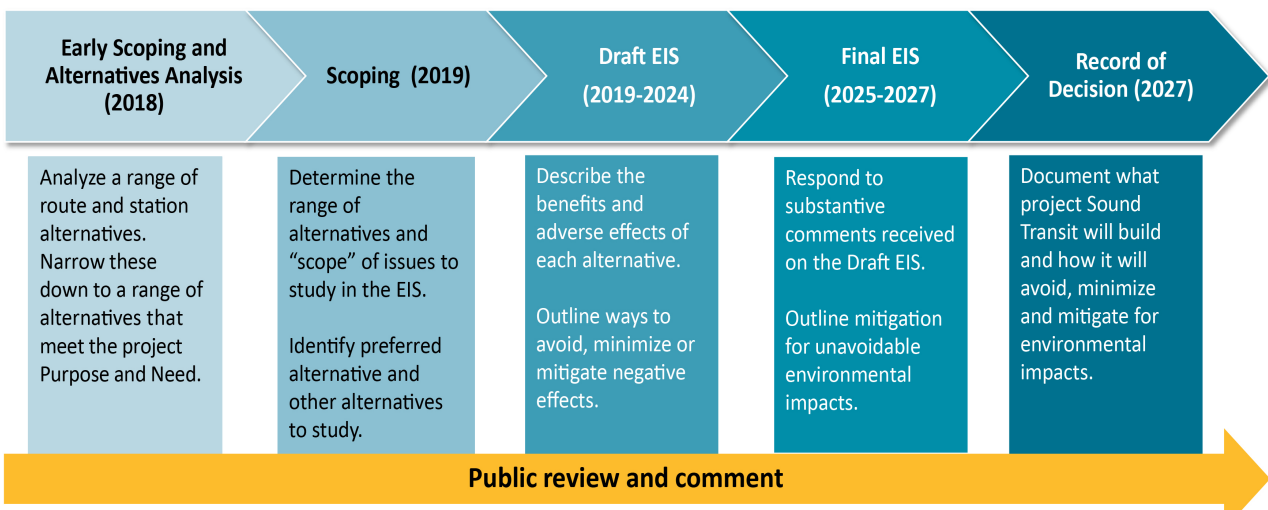
After considering the project's potential effects, mitigation and avoidance measures and anticipated benefit to minority and low-income populations, FTA has made a preliminary determination that TDLE would not result in a disproportionate adverse impact on minority and low-income populations. Additional information is included in Appendix C, Environmental Justice.

### ES.6.3 Commitment of Resources

TDLE would have irreversible and irretrievable commitments of property and natural resources if built. Some private properties with industrial and commercial uses would be converted to transit use. Construction of the proposed project would also require the irretrievable commitment of resources, such as fuel and construction materials (e.g., aggregate for concrete, wood for forms and frames, and steel for rebar and rails).

## ES.7 Tribal, Agency, and Public Involvement

FTA and Sound Transit are committed to engaging with the Puyallup Tribe of Indians, Muckleshoot Indian Tribe, Nisqually Indian Tribe, Yakama Nation, agencies, and the public throughout the planning, construction, and operation of TDLE and began to do so in the early phases of the project. Sound Transit has engaged with Tribes, neighborhood and community stakeholders, local transit partners, and city, county, state, and federal agencies in a variety of ways to inform and involve them in the project (Figure ES-9). Public involvement and agency coordination in the planning and environmental phases of the project have played and will continue to play an important role in the development of station and route alternatives, identifying the preferred alternatives, and environmental review and refinement. Additional information regarding Tribal, agency, and public involvement is included in Appendix B, Public Involvement and Tribal and Agency Coordination.



**Figure ES-9 Project Public Review and Comment Process**

### ES.7.1 Tribal Consultation

A number of federal statutes require federal agencies to consult or coordinate with Tribes, including the National Historic Preservation Act, NEPA, Executive Order 13175, and others. FTA is consulting with four federally recognized American Indian Tribes for TDLE:

- Puyallup Tribe of Indians.
- Muckleshoot Indian Tribe.
- Nisqually Indian Tribe.
- Yakama Nation.

These Tribes have been identified for consultation under Section 106 in coordination with FTA and the State Historic Preservation Office because of the potential for sites with cultural significance. Government-to-government consultation with these Tribes was initiated through consultation letters sent by FTA in February 2018, followed by a formal invitation to participate in scoping and the initiation of Section 106 consultation in April 2019. Through the consultation process, the Tribes have the opportunity to develop information, share environmental analyses, and review and provide comments on Section 106 and the preliminary version of the Draft EIS prior to formal issuance.

FTA invited interested Tribes to participate in the environmental review process and the Puyallup Tribe of Indians accepted. The Puyallup Tribe of Indians is invited to monthly meetings with the City of Fife and the City of Tacoma, as well as meetings of the Elected Leadership Group, Interagency Group, and Stakeholder Group. Additional Tribal meetings have also occurred and are identified in Appendix B, Public Involvement and Tribal and Agency Coordination. FTA continues to engage with all four Tribes under Section 106 and NEPA.

## **ES.7.2 Chartered Group Engagement**

Three chartered groups, consisting of affected Tribes, project partners, local jurisdictions, elected officials, and community partners, played important roles in the alternative development process. These groups included a Stakeholder Group, an Elected Leadership Group, and an Interagency Group, which met in 2018 and 2019 and provided input and recommendations on the alternatives to be analyzed in the Draft EIS. The Interagency Group has continued to meet periodically throughout the development of Draft EIS (Appendix B, Public Involvement and Tribal and Agency Coordination).

## **ES.7.3 Public Outreach**

Sound Transit began public outreach efforts for TDLE in 2018. Outreach methods included online, in-person, existing community engagement efforts, media, English and translated materials to ensure continual engagement, and availability of information throughout the project. To ensure widely available, accessible project information, Sound Transit utilized a variety of communications tools and methods, including a database, a project website, online open houses, fact sheets and information materials, press releases and email updates. Print, online and media advertisements and project updates disseminated project information throughout each outreach period. Activities during each of the outreach periods to date include:

- **Early Scoping** (April 2, 2018, through May 3, 2018): Outreach during early scoping under SEPA focused on providing information about the representative project and gathering public feedback to inform the project scope, schedule, and budget. Sound Transit asked members of the public to comment on the purpose and need of the project and potential benefits, alternatives and impacts of proposed route alignments and stations. Public input was used to inform the early development of route and station alternatives.
- **September 2018 Outreach Activities** (September 1, 2018, through September 21, 2018): Between early scoping and scoping outreach, Sound Transit focused on inclusive outreach with community groups, organizations, residents, businesses, and underrepresented populations along the project corridor that do not typically participate in traditional in-person and online open houses. Outreach efforts were geared towards equitable engagement and reaching potential future riders. Three in-person open houses were held during September 2018, and an online open house was available between September 1 – 21 for members of the public who were unable to attend the in-person open houses. Sound Transit asked

members of the public to comment on the potential for route and station alternatives. This input was used to inform the continuing development of route and station alternatives.

- **NEPA and SEPA Scoping Activities** (March 26, 2019, through May 1, 2019): During the scoping period, Sound Transit shared information on the latest route and station alternatives and topics to study in the EIS, as well as an overview of past project activity. FTA and Sound Transit sought public comment on the proposed route and station alternatives, the purpose and need of the project and the potential environmental impacts or benefits to be studied in the EIS. Comments were gathered at in-person open houses and through online open houses and incorporated into the summary presented to the Board.
- **Public Outreach during Draft EIS Development** (November 13, 2019, through December 6, 2019): Sound Transit focused outreach efforts during Draft EIS development on providing updates on the process to date and the preferred alternatives and other alternatives for study identified by the Board. This outreach period was intended to provide a project update around alternatives design. This was achieved through a series of informal drop-in sessions and an online open house. The input received was used to inform the continuing development of the station and alternative design concepts.
- **Fall 2020 Outreach** (September 29, 2020, through November 2, 2020): Sound Transit held an online open house to share information and gather input from the community on station design concepts. The input received was used to inform the continuing development of station concepts. This outreach period was held online only due to the COVID-19 pandemic public health restrictions.
- **Winter/Spring 2023 Outreach** (February 27 through March 17): Sound Transit shared project updates regarding new routes and station options in the Fife and South Federal Way segments and sought comments at three in-person drop-in sessions and hosted an online open house. Input received was used to inform the continuing development alternatives in the Draft EIS.

Comments received during early scoping and NEPA and SEPA scoping activities are summarized in Appendix I, Alternatives Development Supporting Materials. Section 2.4, Alternatives Development and Scoping, summarizes how scoping comments helped guide the location of stations and alignments in the early phases of alternatives development. The public review and comment process will continue through the Final EIS and ROD, as shown in Figure ES-9.

#### ES.7.4 Agency Coordination

FTA and Sound Transit developed a Coordination Plan in accordance with 23 U.S.C. § 139(g)(1) and following FTA policy, with the objective of identifying key coordination points with Tribes, agencies, and the public during the environmental review process for TDLE. The purpose of the Coordination Plan is to support cooperating agencies, participating agencies, and Tribes as they engage in the identification, analysis, and evaluation of TDLE alternatives throughout alternatives development and the environmental review process.

In addition to agency participation in the public outreach described in ES.7.3 and consistent with the Coordination Plan, Sound Transit has coordinated regular interagency meetings, elected leadership group meetings, and other activities to collect input from interested agencies. This coordination informed the development of project alternatives, technical analysis methodologies, and development of the Draft EIS.

## ES.8 Areas of Controversy and Issues to Be Resolved

Areas of controversy and issues that remain to be resolved include the following:

- **Location of Guideway within WSDOT Right-of-Way:** Portions of some of the alternatives in the Federal Way, South Federal Way, and Fife segments are anticipated to be within WSDOT right-of-way along I-5. Sound Transit must secure agreements and approvals from WSDOT and the Federal Highway Administration (FHWA) for use and proposed modifications (such as moving freeway noise walls). Sound Transit has coordinated with FHWA and WSDOT during conceptual design to identify where the alternatives could potentially use WSDOT right-of-way. Additional design coordination and analysis will occur during the development of the Final EIS. Approvals would not occur until final design.
- **Type of Parking Facility:** The type of parking facilities in Fife and South Federal Way may be surface parking or a parking garage. The Draft EIS evaluates both options. As the design progresses, Sound Transit would work with the cities to develop recommendations for the type of parking facility. Parking facilities may be deferred until 2038, 3 years after the opening of TDLE in 2035, per the realigned capital program.
- **Type of Puyallup River bridge crossing:** The Draft EIS evaluates long-span and pier-supported bridge types. Each bridge type would have differing impacts to resources such as visual, ecosystem, water, and Tribal fishing. Given the complexity of this crossing, the project will need coordination with Tribal, federal, state, and local agencies related to the environmental permitting process and will develop a comprehensive mitigation approach.
- **Coordination with Amtrak and WSDOT in Tacoma Dome Station area:** Construction of the alignment will cross the heavy rail tracks used by Sounder and Amtrak and, depending on the station location, may require temporary relocation of the boarding facilities located at Freighthouse Square.

Sound Transit would continue to coordinate with the appropriate federal, state, and local agencies and jurisdictions and affected Tribes to address these and any other issues that arise. Additional areas of controversy and issues to be resolved may be identified during the Draft EIS comment period.

## ES.9 Opinion of Probable Cost

This section provides preliminary opinions of probable cost for each design alternative. These opinions of probable cost are intended to serve as a basis for comparing various design alternatives and options; they are not intended to serve as a method for establishing the project budget. These opinions of cost are based on early design and will continue to be refined during future stages of final design. The opinion of probable cost consists of many components and include one-time capital costs and construction costs (including parking), anticipated/estimated mitigation, right-of-way/property acquisition costs, engineering costs, equipment costs, and contingency. However, it does not include the cost of additional light rail vehicles needed to operate the project or variable market factors.

The opinion of probable cost for each design alternative shown in Table ES-6 is based on the current level of design (approximately 10 percent design). At this early phase of project development, the opinion of probable costs is for comparative purposes only (Sound Transit 2016b). It does not represent the project budget. Sound Transit has developed the high-level conceptual opinion of probable cost for all alternatives under evaluation in the Draft EIS. A project baseline budget is typically established at approximately 60 percent design (depending on the delivery method) prior to the start of construction.



Given the current early level of project design, there remain uncertainties regarding the project scope, engineering data, mitigation requirements, schedule, and project delivery methods. Therefore, these conceptual estimates focus on the project elements that are defined consistently across alternatives, that capture the essential physical features of alternatives, and that help distinguish alternatives from one another.

A more detailed estimate, applying a “bottoms up” cost methodology will be developed in the future. Early preliminary information from this methodology for other projects indicates cost growth attributable to the change in estimating methodology, market conditions, design development, and scoping changes. Capital projects across the Puget Sound region are experiencing the effects of market factors, including increases in the cost of materials, equipment, and labor. Sound Transit anticipates that construction costs will continue to escalate over the course of project development and final design. Each project estimate throughout the various design phases will therefore need to be evaluated and adjusted specifically considering current market conditions. This market conditions adjustment is independent of escalation and will fluctuate with economics and the value of any given project considered by the marketplace.

**Table ES-6 Opinion of Probable Cost for TDLE in 2024 Dollars**

Alternative	Opinion of Probable Cost <sup>1</sup>
<b>Federal Way Segment<sup>2</sup></b>	
FW Enchanted Parkway (with and without the FW Design Option)	\$390 million - \$398 million
<b>South Federal Way Segment<sup>3</sup></b>	
SF Enchanted Parkway	\$1.66 billion - \$1.71 billion
SF Enchanted Parkway with SF 352nd Span Station Option	\$1.67 billion - \$1.72 billion
SF I-5	\$1.57 billion - \$1.60 billion
SF 99-West Alternative	\$1.56 billion - \$1.62 billion
SF 99-West Alternative with Porter Way Design Option	\$1.57 billion - \$1.63 billion
SF 99-East Alternative	\$1.71 billion - \$1.75 billion
SF 99-East Alternative with Porter Way Design Option	\$1.70 billion - \$1.74 billion
<b>Fife Segment<sup>3</sup></b>	
Fife Pacific Highway	\$0.99 billion - \$1.04 billion
Fife Pacific Highway - 54th Avenue Design Option	\$0.97 billion - \$1.03 billion
Fife Pacific Highway - 54th Span Design Option	\$0.99 billion - \$1.05 billion
Fife Median	\$1.09 billion - \$1.15 billion
Fife Median Highway - 54th Avenue Design Option	\$1.07 billion - \$1.13 billion
Fife Median Highway - 54th Span Design Option	\$1.09 billion - \$1.15 billion
Fife I-5	\$0.99 billion - \$1.05 billion
Fife I-5 - 54th Avenue Design Option	\$0.97 billion - \$1.03 billion
Fife I-5 - 54th Span Design Option	\$0.99 billion - \$1.05 billion

**Table ES-6 Opinion of Probable Cost for TDLE in 2024 Dollars (continued)**

Alternative	Opinion of Probable Cost <sup>1</sup>
<b>Tacoma Segment<sup>4</sup></b>	
Preferred Tacoma 25th Street-West (Portland Avenue Station)	\$1.27 billion - \$1.51 billion
Tacoma 25th Street-West (Portland Avenue Span Station Option)	\$1.25 billion - \$1.49 billion
Tacoma 25th Street-East (Portland Avenue Station)	\$1.18 billion - \$1.42 billion
Tacoma 25th Street-East (Portland Avenue Span Station Option)	\$1.20 billion - \$1.44 billion
Tacoma Close to Sounder (Portland Avenue Station)	\$1.12 billion - \$1.36 billion
Tacoma Close to Sounder (Portland Avenue Span Station Option)	\$1.11 billion - \$1.35 billion
Tacoma 26th Street (Portland Avenue Station)	\$1.23 billion - \$1.47 billion
Tacoma 26th Street (Portland Avenue Span Station Option)	\$1.21 billion - \$1.45 billion

**Notes:**

- (1) A more detailed estimate, applying a “bottoms up” cost methodology will be developed in the future. Opinions of probable cost are for comparative purposes only and do not represent the project budget.
- (2) The FW Design Option would cost approximately \$10 million dollars more.
- (3) In the South Federal Way Segment and the Fife Segment, provision of a new parking garage at each station represents the higher end of the cost range whereas provision of new surface parking at each station represents the lower end of the range.
- (4) In the Tacoma Segment, the higher end of the cost range reflects the costs for the alternative with a long-span bridge at the Puyallup River crossing whereas the lower end of the range reflects the costs for the pier-supported bridge.

## ES.10 Next Steps

The following next steps are anticipated following the publication of the Draft EIS:

- **Draft EIS Review and Comment:** FTA and Sound Transit are circulating the Draft EIS, which includes a draft Section 106 Programmatic Agreement, to affected Tribes, local jurisdictions, state and federal agencies, community organizations, other interest groups, interested individuals, and the public for review and comment. Documents are available at Sound Transit offices, public libraries, community centers, and online. To review the documents at the Sound Transit office, please contact the Sound Transit librarian at 206-398-5344 to arrange an appointment (see the Fact Sheet for additional information about availability and/or purchase). A 60-day formal public comment period from the date of issuance of the document is being provided.
- **Confirmation/Modification of Preferred Alternative:** After consideration of analysis in the Draft EIS, comments received, and other factors, the Board will confirm or modify the preferred alternatives for evaluation in the Final EIS. In areas where there is not currently a Preferred Alternative, the Board will identify one. The final decision on the alternatives to be built will not be made until after the Final EIS is issued.
- **Final EIS:** FTA and Sound Transit will prepare a Final EIS that analyzes the Preferred Alternative along with the other alternatives evaluated in the Draft EIS. The Final EIS will respond to substantive comments received on the Draft EIS. An unsigned Section 106 Programmatic Agreement will also be included with the Final EIS to be executed after the Board selects the project to be built.
- **Sound Transit Board Project Decision:** After the Final EIS is published, the Board will select the project to be built.



- **Execute Section 106 Programmatic Agreement:** Once the project to be built is identified, the Section 106 Programmatic Agreement will be executed.
- **FTA Project Approval:** FTA will then publish the ROD for the project, which would document findings that the project has met the requirements of NEPA and related federal environmental regulations. For this project, the EIS is a joint NEPA and SEPA document that will support decision-making by FTA, Sound Transit, and other agencies.

Figure ES-3 shows the planned schedule milestones for construction of TDLE. The schedule is subject to change. Environmental review is expected to occur through 2027 with the issuance of the Final EIS. The ROD is also expected in 2027, with final design between 2027 and 2029, and construction and pre-operation testing between 2029 and 2035. The forecasted in-service date is 2035.

***[soundtransit.org/tdlink-deis](https://soundtransit.org/tdlink-deis)***

**Questions?** Contact Community Engagement,  
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