

# SCREENING FOR FIFE STATION OPTIONS

**Appendix I5** 





Tacoma Dome Link Extension

# Screening for Fife Station Options



CENTRAL PUGET SOUND
REGIONAL TRANSIT AUTHORITY



Tacoma Dome Link Extension

# Screening for Fife Station Options

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Sound Transit

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# **Acronyms and Abbreviations**

Board Sound Transit Board of Directors

COLI Center of Local Importance

I-5 Interstate 5

NRHP National Register of Historic Places

PSRC Puget Sound Regional Council

Puyallup Tribe of Indians Puyallup Tribe of the Puyallup Reservation

SEPA State Environmental Policy Act

Sound Transit Central Puget Sound Regional Transit Authority

SR State Route

ST3 Plan Sound Transit 3 Plan

TDLE Tacoma Dome Link Extension

# 1 Introduction

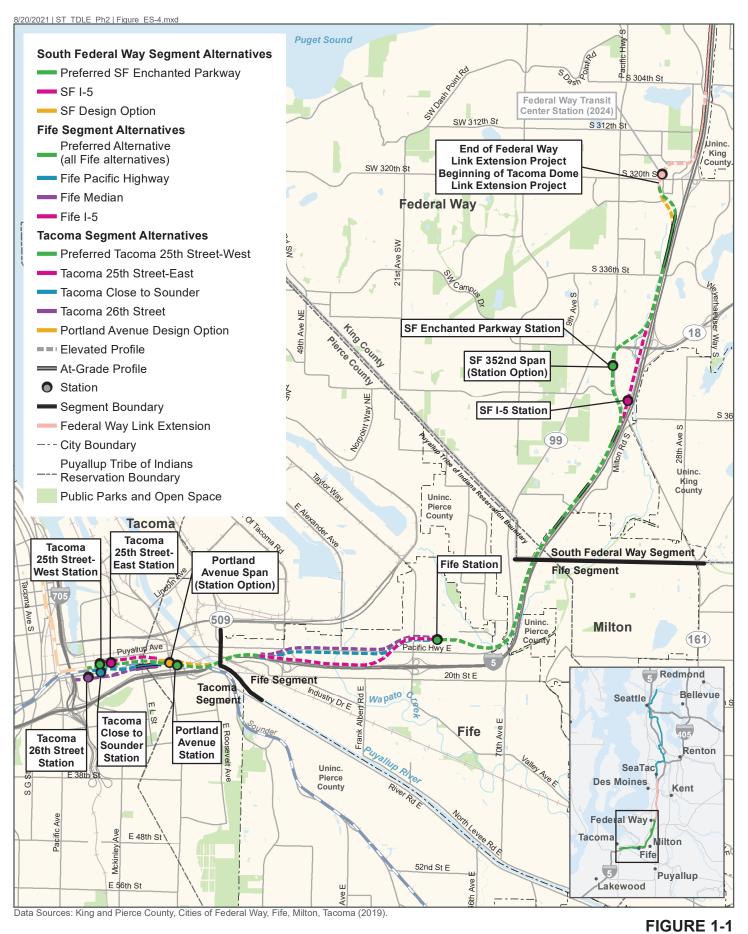
In 2018 and 2019, Central Puget Sound Regional Transit Authority (Sound Transit) conducted an alternatives development process to identify station and alignment alternatives to study in the Tacoma Dome Link Extension (TDLE) Environmental Impact Statement. That process included three levels of screening: prescreening, Level 1, and Level 2 alternatives evaluation. The alternatives development process began with early scoping under the State Environmental Policy Act (SEPA) in April 2018 and scoping under the National Environmental Policy Act and SEPA in April 2019. Information on early scoping, scoping, and the development of the alternatives is included in Appendix I, Alternatives Development Supporting Documents.

In July 2019, the Sound Transit Board of Directors (Board) identified the alternatives for study in this Draft Environmental Impact Statement. The Board also identified a Preferred Alternative in the South Federal Way and Tacoma segments as well as in a portion of the Fife Segment, which is shown in Figure 1-1. The portion of the Fife Segment that was identified as preferred included the location of the Fife Station, which was supported by the Puyallup Tribe of the Puyallup Reservation (Puyallup Tribe of Indians) and the City of Fife.

While analyzing the alternatives for the Draft Environmental Impact Statement, Sound Transit identified challenges related to the preferred Fife Station location being sited inside the boundary of the Fife Ditch Tributary 1 floodplain. Pursuant to federal regulations, including Executive Order 11988 and U.S. Department of Transportation Order 5650.2, if an agency proposes a project to be located within a floodplain, an alternative to avoid adverse effects in the floodplain is required to be analyzed in the Draft Environmental Impact Statement. Sound Transit has coordinated with the Puyallup Tribe of Indians and the City of Fife to identify potential additional station options to evaluate in the Draft Environmental Impact Statement in addition to the preferred station location. The City of Fife's planning efforts for a new City Center, as well as the location of the State Route (SR) 167 Completion and SR 167/Interstate 5 (I-5) to SR 509 Expressway projects, were also considered during the development of potential station options.

This memorandum is organized into the following sections:

- 1. Introduction
- 2. Potential Fife Station Options Evaluation
- 3. Screening Summary
- 4. Next Steps



2 Miles

Alternatives Identified in 2019 for Study in the Draft Environmental Impact Statement

Tacoma Dome Link Extension

# 2 Potential Fife Station Options Evaluation

### 2.1 Development of Potential Fife Station Options for Screening

Developing potential station options to evaluate in the screening involved three steps:

1) identifying potential station facilities outside of Federal Emergency Management Agency's mapped floodplain boundary along the alternative alignments previously developed and identified by the Board for study in the Draft Environmental Impact Statement, 2) considering whether the station options being studied satisfy the purpose and need for the project, and 3) evaluating the station options for consistency with the Sound Transit 3 (ST3) Plan, which is the basis for the proposed project. Sound Transit and the Federal Transit Administration met with the Puyallup Tribe of Indians and the City of Fife to obtain input on an additional station option(s) in Fife.

The station options were then evaluated using applicable criteria from the Level 1 and 2 alternatives evaluations, such as transportation benefits, cost, ridership, transit oriented development, land use plans, technical feasibility, and environmental impacts. An opportunity for public feedback was provided as Sound Transit updated the community on this topic from February 27 to March 17, 2023. These evaluations, input from the Puyallup Tribe of Indians and City of Fife, and public feedback will help inform the station option or options to be included in the Draft Environmental Impact Statement.

#### 2.2 Evaluation Criteria

The Purpose and Need established five objectives that have been used to develop the evaluation criteria and measures. The objectives are to:

- Provide effective transportation solutions to meet mobility, access, and capacity needs
- Support sustainable land use plans, economic development, and transit oriented development
- Preserve the environment
- Support equitable mobility
- Provide a financially sustainable and constructible project

The evaluation criteria and measures listed in Table 2-1, Evaluation Criteria, show the criteria used to assess the differences in performance or potential effects among the Fife station options, as well as the measures used in previous TDLE screening evaluations. The qualitative and quantitative measures were used to determine how the station option(s) performed when compared to each other. For the Fife station options, a sub measure was included to address consistency with Fife City Center planning.

#### TABLE 2-1 EVALUATION CRITERIA

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Fife Station Option Measures (2022)
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Objective: Provide effective transportation solutions to meet mobility, access, and capacity needs

#### Purpose and Need:

- 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 ST3 Plan (Sound Transit 2016)<sup>1</sup>.
- Improve regional mobility by increasing connectivity and capacity in the TDLE corridor from the Federal Way Transit Center to the Tacoma Dome Station area to meet projected transit demand.
- Expand mobility for the corridor and region's residents, which includes transit-dependent, low-income, and minority populations.

Ridership Potential	L1.1: Travel time	L2.1: Travel time	F.1: Travel time
	L1.2: Total population and employment (2035) within 1/2 mile of stations	L2.2: Daily and annual projected project ridership (2042)	F.2: Daily and annual projected project ridership (2042)
	L1.3: Proximity to existing/future population and	L2.3: Projected station boardings (2042)	F.3: Projected station boardings (2042)
	employment centers/activity centers and major destinations within 1/2 mile of stations	L2.4: Proximity to Puget Sound Regional Council growth centers and manufacturing/industrial centers	F.4: Proximity to Puget Sound Regional Council growth centers and manufacturing/industrial centers
		L2.5: Population (persons/acre) and job (jobs/acre) densities	F.5: Population (persons/acre) and job (jobs/acre) densities

Objective: Support sustainable land use plans, economic development, and transit oriented development

#### Purpose and Need:

- Connect communities of Federal Way, Milton, Fife, Tacoma, and the Puyallup Tribe of Indians 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.
- 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 Transit Oriented Development and Sustainability policies.
- Encourage convenient and safe nonmotorized access to stations, such as bicycle and pedestrian connections consistent with Sound Transit's System Access Policy.

Supports future
transit oriented
development
opportunities

- L1.4: Consistency with local and tribal economic development goals, planned development, current and anticipated zoning, and/or comprehensive plans
- L1.5: Barriers that limit the development potential, walkshed, and range and safety of bicycling around the station, such as topography, wide roads, highways, bodies of water, and railways
- L1.6: Presence of amenities to catalyze complete neighborhoods, such as shops, services, schools, recreational facilities, civic or character amenities, or views/access to nature
- L2.6: Consistency with civic and community planning and land use; evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning; and/or comprehensive plans
- L2.7: Likelihood of station area redevelopment into transit-oriented neighborhood
- L2.8: Detailed evaluation of nonmotorized barriers within 1/2 mile of the station
- L2.9: Presence of amenities that can catalyze development of transit-oriented neighborhoods
- F.6: Consistency with adopted civic and community planning and land use; evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning; and/or comprehensive plans
- F.6b: Consistency with City of Fife City Center planning
- F.7: Likelihood of station area redevelopment into transit-oriented neighborhood
- F.8: Inventory of nonmotorized barriers within 1/2 mile of the station
- F.9: Presence of amenities that can catalyze development of transit-oriented neighborhoods

F.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)

#### TABLE 2-1 EVALUATION CRITERIA (CONTINUED)

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Fife Station Option Measures (2022)
Promotes multimodal access and connections	L1.7: Qualitative assessment of bicycle and pedestrian accessibility and potential for improvement L1.8: Qualitative assessment of transit connections and potential for improvement within station areas	L2.10: Proximity to existing transit service and level of transit service diversion required L2.11: Ease of vehicular pickup/drop-off for a variety of users L2.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations L2.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations	F.10: Proximity to local bus, and other transit facilities and services  F.11: Ease of vehicular pickup/drop-off for a variety of users  F.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations  F.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations
Objective: Preserve the end of Purpose and Need:  • Preserve and prese	environment  promote a healthy environment and economy by minimizin	ng adverse impacts on the natural, built, and social envi	ronments.
Effects on the natural environment	L1.9: Proximity to major wetlands, streams, floodplains, steep slopes, Endangered Species Act species, fisheries, or other natural habitat areas within 100 feet of an alternative (in acres of resources)	L2.14: Potential effects to wetlands L2.15: Potential effects to streams/stream crossings L2.16: Potential to affect protected species and habitats L2.17: Potential effects to vegetated areas L2.18: Potential effects to floodplains L2.19: Presence of geologic hazard areas (steep	F.14: Potential effects to wetlands F.15: Potential effects to streams/stream crossings F.16: Potential to affect protected species and habitats F.17: Potential effects to vegetated areas F.18: Potential effects to floodplains/water resources

slopes, erosion, or landslide hazard areas)

TABLE 2-1 EVALUATION CRITERIA (CONTINUED)

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Fife Station Option Measures (2022)
Effects on the built environment	L1.10: Estimated levels of property impacts (residential, commercial, other) and number of large tax-generating properties affected L1.11: Estimated number of tribal parcels affected L1.12: Presence of known Section 4(f), park, historic, culturally significant tribal properties, or other protected areas L1.13: Presence of a viewshed or proximity to view- dependent businesses L1.14: Potential for impacts from vibration and noise L1.15: Potential for affecting areas with existing traffic congestion L1.16: Potential for affecting parking supply and demand and spillover parking effects L1.17: Potential avoidance of hazardous waste	L2.20: Estimated number of affected parcels and total acreage by property type  L2.21: Estimated number of affected parcels with major economic activity generators  L2.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating  L2.23: Estimated number of tribal parcels potentially affected  L2.24: Potential effects on Section 4(f) parks and recreational resources  L2.25: Potential effects on Section 4(f) historic resources and properties that are listed in or eligible for the National Register of Historic Places (NRHP)  L2.26: Potential effects on Section 4(f) cultural and archaeological resources  L2.27: Potential effects to viewsheds along the alignment and potential for impacts to view-dependent businesses  L2.28: Potential effects on sensitive noise and vibration receptors  L2.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network  L2.30: Potential effects on freight movement  L2.31: Potential effects on parking demand and supply	<ul> <li>F.20: Estimated number of affected parcels</li> <li>F.21: Estimated number of affected parcels with major economic activity generators</li> <li>F.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating</li> <li>F.23: Estimated number of tribal parcels potentially affected</li> <li>F.24: Potential effects on Section 4(f) parks and recreational resources</li> <li>F.25: Potential effects on Section 4(f) historic resources (buildings) and properties that are listed in or eligible for the NRHP</li> <li>F.26: Potential effects on cultural and archaeological resources</li> <li>F.27: Potential effects to viewsheds along the alignment and potential for impacts to view dependent businesses</li> <li>F.28: Potential effects on sensitive noise and vibration receptors</li> <li>F.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network</li> <li>F.30: Potential effects on freight movement</li> <li>F.31: Potential avoidance of hazardous waste</li> <li>F.32: Potential effects on parking demand and supply</li> </ul>
Objective: Support equita Purpose and Need: • Expand mobilit	I able mobility y for the corridor and region's residents, which include trai	nsit-dependent, low-income, and minority populations.	
Provide equitable transit service to low- income, minority, and transit-dependent populations	L1.18: Qualitative demographic differences among the option census data (households with no car, low-income, and minority populations) in station areas L1.19: Potential for impacts on low-income and minority populations	L2.33: Potential benefits to low-income or minority populations L2.34: Potential for impacts on low-income and/or minority populations	F.33: Potential benefits to low-income or minorit populations F.34: Potential for impacts on low-income and/o minority populations

#### **EVALUATION CRITERIA (CONTINUED)** TABLE 2-1

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Fife Station Option Measures (2022)				
Objective: Provide a fina	Objective: Provide a financially sustainable and constructible project						
Purpose and Need:							
<ul> <li>Implement a sy</li> </ul>	ystem that is technically and financially feasible to build, $ert$	perate, and maintain.					
Financial considerations	L1.20: Major cost elements beyond the representative project description	L2.35: Preliminary conceptual estimate <sup>2</sup> L2.36: Operating estimate	F.35: Preliminary conceptual estimate <sup>2</sup> F.36: Operating estimate				
Constructibility and engineering considerations	L1.21: Potential risks (major utilities or structures) L1.22: Availability and potential to use publicly owned right-of-way	L2.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure	F.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure				
	L1.23: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan	L2.38: Number of sites requiring environmental remediation within the project footprint of an alternative	F.38: Number of sites requiring environmental remediation within the project footprint of an alternative				
		L2.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)	F.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)				
		L2.40: Availability and potential to use publicly owned right-of-way and publicly owned property <sup>3</sup>	F.40: Availability and potential to use publicly owned right-of-way and publicly owned property <sup>3</sup>				
		L2.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan <sup>3</sup>	F.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan³				
Operational considerations	L1.24 Consideration of operational elements (e.g., potential reliability, track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)	L2.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)	F.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)				
Schedule considerations	L1.25: Overall schedule risk	L2.43: Overall schedule risk	F.43: Overall schedule risk				

- Sound Transit. 2016. Sound Transit 3: The Regional Transit System Plan for Central Puget Sound. June 2016.
   Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.
   Measures F.40 and F.41 were not applicable for station screening.

Additional descriptions for how the criteria was used to evaluate the objectives is included in Appendix I, Attachments I3 (Pre-Screening and Level 1 Alternatives Evaluation Report) and I4 (Level 2 Alternatives Evaluation Report) to the Draft Environmental Impact Statement.

### 2.3 Potential Fife Station Options

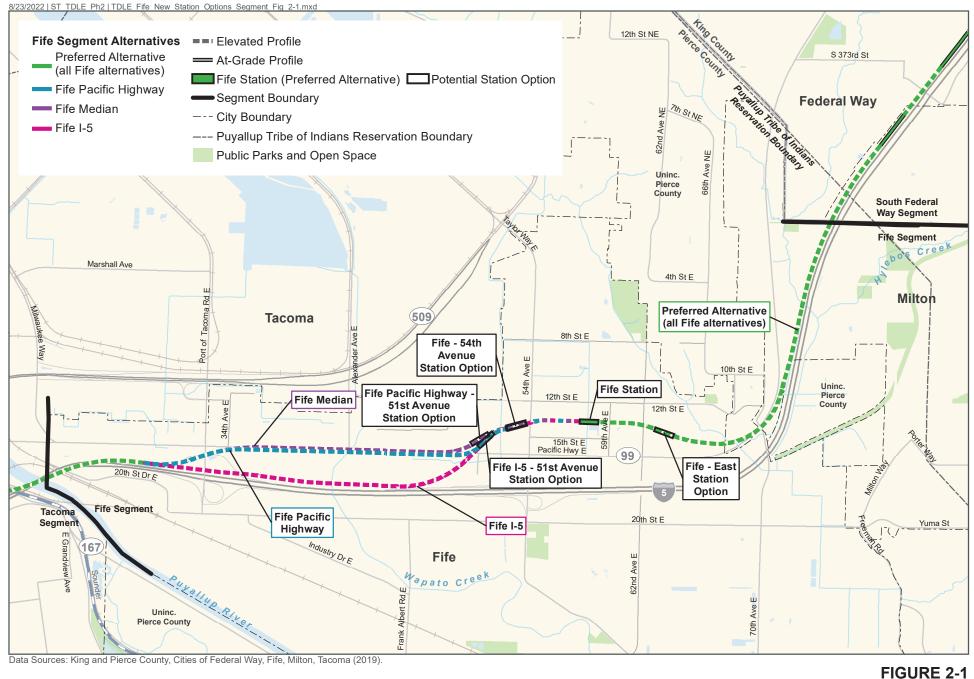
In 2019, the Sound Transit Board identified three alternatives to study in the Fife Segment: the Fife Pacific Highway Alternative, the Fife Median Alternative, and the Fife I-5 Alternative. All three alternatives connect to the Preferred Fife Station.

In 2022, Sound Transit identified three additional areas for potential station options, as shown in Figure 2-1. These areas include near 62nd Avenue E (East Station Option), 54th Avenue E, and 51st Avenue E. The station option design at 54th Avenue E would be the same for the Fife Pacific Highway, Fife Median, and Fife I-5 alternatives. However, the guideway's alignment would differ as it enters and exits the station option, depending on the alternative. The station option design at 51st Avenue E would be the same for the Fife Pacific Highway and Fife Median alternatives. The design of this station option would vary slightly with the Fife I-5 Alternative.

For screening, the potential station options were named:

- Fife East (located east of 62nd Street E, compatible with all alignment alternatives)
- Fife Pacific Highway 54th Avenue
- Fife I-5 54th Avenue
- Fife Pacific Highway 51st Avenue
- Fife I-5 51st Avenue

Table 2-2 presents the screening results for each of the potential Fife station options.



N 0 0.5 1 Mile

Figure 2-1
Fife Segment
Potential Fife Station Options

Tacoma Dome Link Extension

#### Table 2-2 Screening Results for Potential Fife Station Options

	Table 2-2 Screening Results for Potential Fife Station Options  Performance Rating Notes (all options have center platforms)					
Measure	Methodology	Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
Objective: Provide effective	transportation solutions to me	eet mobility, access, and capacity needs				
F.1: Travel time	Estimated based on alignment length, percent of alignment with horizontal speeds below 55 mph	Travel time is similar to the 10% design. Magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) more than other options due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves.
F.2: Daily and annual projected project ridership (2042)	Average daily projected riders (baseline estimate provided for Fife station area, with qualitative differences noted for station/alignment alternatives) Fife: 12,900 Daily Northbound (NB); 12,900 Daily Southbound (SB)	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB	12,900 NB; 12,900 SB
F.3: Projected station boardings (2042)	Projected station boardings (baseline estimate provided for Fife station area, with qualitative differences noted for station/alignment alternatives) Fife: 1,700 daily NB boardings; 900 daily SB boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings	2,600 daily boardings
F.4: Proximity to Puget Sound Regional Council growth centers and manufacturing/industrial centers	% Puget Sound Regional Council Growth Center and/or manufacturing/industrial center within 10-minute walkshed	No Puget Sound Regional Council regional growth center or manufacturing/industrial center.  No potential to support growth centers.	Station near Port of Tacoma, Puget Sound Regional Council manufacturing/industrial center area.  Minimal potential to support growth centers.	Station near Port of Tacoma, Puget Sound Regional Council manufacturing/industrial center area.  Minimal potential to support growth centers.	Station near Port of Tacoma, Puget Sound Regional Council manufacturing/industrial center area. Minimal potential to support growth centers.	Station near Port of Tacoma, Puget Sound Regional Council manufacturing/industrial center area.  Minimal potential to support growth centers.
F.5: Population (persons/acre) and job (jobs/acre) densities	Existing and future (2040) population and employment densities within 10-minute walkshed	Population density: 2.4 (existing); 3.0 (future) Employment density: 1.8 (existing); 2.8 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)	Population density: 2.6 (existing); 3.3 (future) Employment density: 3.1 (existing); 4.9 (future)
Objective: Support sustaina	ble land use plans, transit orie	nted development, and multimodal station acce	ss			
F.6: Consistency with adopted civic and community planning and land use, evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans	Assessment of the civic and land use documents that are relevant and up to date in each station area. Evaluate each station location against the relevant documents/civic plans rating each plan as "consistent with TOD around alternative location"(+), "neutral", or "inconsistent with TOD around alternative location"(-)	Residential and Regional Commercial, adjacent to property zoned	to property zoned Business Park, Industrial, and Community Commercial. The property where the station is proposed to be located is planned to be zoned Mixed Commercial/High Density Residential, with no change in zoning proposed for other nearby	Commercial. The property where the station is proposed to be	Business Park. The property currently zoned Regional Commercial is proposed to be rezoned as Mixed Commercial/High Density Residential along with adjacent to areas currently zoned Neighborhood Commercial.	Like Pacific Highway - 51st Avenue South, except located on more property currently zoned Business Park, which is not anticipated to change. Both 51st Avenue Station Options are located near property currently zoned regional commercial but proposed to be amended to Mixed Commercial/Hight Density Residential and some industrial property.
F.6b: Consistency with City of Fife City Center planning * Measure added for 2022 Fife station option screening	Assessment of station location related to the Fife Center of Local Importance (COLI) - City Center identified in the Comprehensive Plan and additional ongoing City Center planning efforts	The Fife - East Station Option would be located outside of the Fife COLI - City Center, adjacent to the eastern boundary.	The Fife Pacific Highway - 54th Avenue Station Option would be located within the Fife COLI - City Center, just inside the western boundary.	the Fife COLI - City Center, just inside the western boundary.	The Fife Pacific Highway - 51st Avenue Station Option would be located on the western boundary of the Fife COLI - City Center, partially within and partially outside the boundary.	The Fife I-5 - 51st Avenue Station Option would be located on the western boundary of the Fife COLI - City Center, partially within and partially outside the boundary.
F.7: Likelihood of station area redevelopment into transit-oriented neighborhood	Assessment of degree to which the station area has land available to support development into a transit-oriented neighborhood, as measured by the amount of land within 1/4 mile walking distance of station that has a relatively greater likelihood to redevelop into transit-supportive uses	This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land not developable as it will be limited by SR 167; other land is unlikely to redevelop due to existing established uses and incompatible zoning.		This station option has some likelihood of redeveloping within a 1/4-mile walking distance. Some land is not likely to redevelop due to its location near the Port of Tacoma; other nearby land is tribally owned.		
F.8: Inventory of nonmotorized barriers within 1/2 mile of the station	Assessment of barriers within 1/2 mile of TDLE station areas (barriers list: (1) topography (hills) that limit the walkshed, (2) wide roads, (3) highways, (4) bodies of water, (5) railways)	SR 99 is located to south of the station (which has 5 lanes of traffic and is difficult to cross), and SR 167 will be located to the northeast. It is also located in an area with a sparser street grid and not within an area where the street will be expanded. However, this station is located near a crossing of I-5 to the southeast of the station via the Wapato Way E bridge. There will also be a shared-use path adjacent to SR 167, located to the northeast of the station.	lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher		(5-lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and	This station location is located near 54th Avenue, which is a wide (5-lane) street with a high volume of truck traffic. Pacific Highway is also located to the south of the station and has 5 lanes and higher truck volumes. However, the station is located one block away, which provides some improvement for nonmotorized access, and there is an existing signalized crossing of Pacific Highway.
F.9: Presence of amenities that can catalyze development of transit- oriented neighborhoods	Assessment of amenities that can catalyze complete transit-oriented neighborhoods in station area.	This station location is furthest from the amenities located west of 54th Avenue	The station is closer to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closer to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closest to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.	The station is closest to amenities concentrated west of 54th Avenue and along Pacific Highway, which include restaurants, retail, and some services.
F.10: Proximity to local bus, and other transit facilities and services	Distance to nearest existing bus stop; measure of the level of diversion that could be required	Stop: Pacific Hwy E & 62nd Ave E (route 500, 60-minute freq) Distance: 1,120 feet	Stop: Pacific Hwy E & 54th Ave E (route 500, 60-minute freq) Distance: 1,250 feet	Stop: Pacific Hwy E & 54th Ave E (route 500, 60-minute freq) Distance: 1,250 feet	Stop: Pacific Hwy E & 52nd Ave E (route 500, 60-min freq) Distance: 660 feet	Stop: Pacific Hwy E & 52nd Ave E (route 500, 60-minute freq) Distance: 500 feet
F.11: Ease of vehicular pickup/drop-off for a variety of users	Assessment of ease of access to pickup/drop-off at stations due to nearby street network and congestion using proposed station concepts.	Vehicle delay increase of 87 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative

#### Table 2-2 Screening Results for Potential Fife Station Options (continued)

		I	<del>_</del>	ential Fife Station Options (continued)		
			Perfor	mance Rating Notes (all options have center pla	tforms)	
Measure	Methodology	Fife - East Station Option (all alternatives)	Fife Pacific Highway - 54th Avenue Station Option	Fife I-5 - 54th Avenue Station Option	Fife Pacific Highway - 51st Avenue Station Option	Fife I-5 - 51st Avenue Station Option
F.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations	Ratio of existing and funded bicycle facility miles (greenway, lanes, protected lanes, trails) to total roadway miles within a 10- minute bikeshed	Located within close proximity and with potential for direction connection to SR 167 regional trail; proximity to bike lanes on Pacific Highway, proximity and direct connections to Interurban Trail Existing: 0.19 Funded: 0.40	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.17 Funded: 0.25	Located near bike lanes on Pacific Highway, with connections to Interurban Trail Existing: 0.16 Funded: 0.25
F.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations	Ratio of existing and funded pedestrian facility miles (trails, sidewalks) to total roadway miles within a 10-minute walkshed of stations	Existing: 0.26 Funded: 1.16	Existing: 0.64 Funded: 0.67	Existing: 0.64 Funded: 0.67	Existing: 0.53 Funded: 0.53	Existing: 0.52 Funded: 0.52
Objective: Preserve the env	ironment					
F.14: Potential effects to wetlands	Extent and quality of wetlands within 100- foot buffer of each alternative	Permanent impact footprint encompasses all parts of a Category IV wetland.	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch	Minor impacts to a Category IV wetland associated with Fife Ditch
	issue of each atendary	No streams or stream buffers in the permanent or temporary impact footprints.	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer.	Permanent impacts to a surface-flowing segment of Fife Ditch; temporary impacts to the stream buffer.	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer (smaller area of buffer impacts, compared to the 54th Ave Station Option).	Permanent impacts to a surface-flowing segment of Fife Ditch, temporary impacts to the stream buffer (smaller area of buffer impacts, compared to the 54th Ave Station Option).
F.15: Potential effects to streams/stream crossings	Number of impacts to streams and stream crossings within 100-foot buffer of each alternative		Guideway crosses the open Fife Ditch stream. If 52nd Ave E is extended to 12th St E by the City of Fife and Sound Transit, the Fife Ditch may need to be relocated slightly west.	Guideway crosses the open Fife Ditch stream.  If 52nd Ave E is extended to 12th St E by the City of Fife and Sound Transit, the Fife Ditch may need to be relocated slightly west.	Guideway crosses open Fife Ditch stream and the station would be built directly over a piped reach of the stream.  Piped reach of stream would potentially need to be relocated outside of station footprint.	Guideway crosses open Fife Ditch stream and the station would be built directly over a piped reach of the stream.  Piped reach of stream would potentially need to be relocated outside of station footprint.
F.16: Potential to affect protected species and habitats	Number of impacts to habitats or areas where endangered, threatened, or sensitive species have a primary association (based on Priority Habitats and Species data from the Washington Department of Fish and Wildlife within 100-foot buffer of each alternative)		Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.	Fife Ditch is accessible to ESA-listed fish, but poor habitat conditions likely discourage use.
F.17: Potential effects to vegetated areas	Estimated area of vegetation removal	Site is largely developed, but it includes patches of grassland, wetland, and non-native forest habitat.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.	Site is largely developed. Some landscaping trees and a patch of grassland habitat (mowed grass) are present.
F.18: Potential effects to floodplains/ water resources	Number of impacts to or floodplains/floodways (additive) within 100-foot buffer	Station site is east of Fife Ditch Tributary floodplain and west of the Hylebos Creek floodplain, and does not cross any streams.	The station platform is over 100 ft away from mapped floodplains; however, the footprint for station area facilities (potentially parking/bus stops) is within 100 feet of Fife Ditch Tributary 1 floodplain to the east (54th Avenue) and Fife Ditch floodplain to the north (12th Street).	The station platform is over 100 feet away from mapped floodplains; however, the footprint for station area facilities (potentially parking/bus stops) is within 100 feet of Fife Ditch Tributary 1 floodplain to the east (54th Avenue) and Fife Ditch floodplain to the north (12th Street).	Station site is further away from Fife Ditch Tributary floodplain and Fife Ditch floodplain compared to 54th Avenue options.	Station site is further away from Fife Ditch Tributary floodplain and Fife Ditch floodplain compared to 54th Avenue options.
F.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)	Number of geologic hazard areas (steep slope, erosion, landslide hazard areas)	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.	Lahar hazard zone and high liquefaction susceptibility.
		14 parcels ( 10 full and 4 partial impact)	21 parcels (10 full and 11 partial)	17 parcels (8 full, 9 partial)	17 parcels (8 full, 9 partial)	14 parcels (8 full, 6 partial)
F.20: Estimated number of affected parcels	Assessment of potential property impacts and general estimate of acreage [needed for station]	6 full takes are Commercial, 2 Public (Qwest/CenteryLink), 1 vacant residential (NRHP-eligible house), 1 occupied residential (Also, 1 new Tribal parcel corner clipped would need easement and 1 new Tribal temporary construction easement)	[greater impact to Fife Business Park buildings compared to Fife I-5	All full takes are Commercial [greater impact on Fife Business Park buildings compared to Fife I-5 - 51st option]	All full takes are Commercial [greater impact on Fife Business Park buildings compared to Fife I-5 - 51st option]	All full takes are Commercial [slightly less impact to Fife Business Park buildings than Fife Pacific Hwy - 51st option]
	iorstation	Station footprint approximately 544,000 square feet	Station footprint approximately 486,000 square feet	Station footprint approximately 432,000 square feet	Station footprint approximately 432,000 square feet	Station footprint approximately 401,000 square feet
F.21: Estimated number of affected parcels with major economic activity generators	Assessment of potential property impacts that have a major economic activity generator (such as Costco, Home Depot, Port of Tacoma property, strip malls)	None	Three parcels - One strip mall building Fife Square (3693), Les Schwab (3700), and SE corner of Fife Business Park (3772) but less impact to buildings on large Fife Business Park (3772) parcel than 51st options.	Two parcels - One strip mall building Fife Square (3693) and Les Schwab (3700)	Three parcels - Impacts to approximately 5 Fife Business Park buildings, 2 of which are large (3722/3789) and a commercial building (corner of 52nd Ave and Pac Hwy, 4–6 tenant spaces) (3742)	Three parcels - Impacts to approximately 4 business park buildings, 1 of which is large (3722/3789) and a commercial building (corner of 52nd Ave and Pac Hwy, 4–6 tenant spaces) (3742)
F.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating	Estimated number of potential property impacts for station by property type	1 Industrial (partial), 2 Residential (fulls), 7 Commercial (fulls) properties would be impacted  Estimate approximately 6 business displacements - 3544/3548 CenturyLink, 3522 Premier Trailer Leasing, 3524 Matheson Trucking, 3505 Hawk's Auto Repair, 3490/3505 Commercial Sales/Energy Conversions Inc., 3473 Concrete Services (sold Nov 24, 2021)	11 commercial parcels would have business displacements  Les Schwab = 2 parcels, 3748 Tavern = 2 parcels, 3756 - Kings Inn. 3772 Fife Business Park (I-5 would impact this parcel less) 3721 - small warehouse building 3693 - multiple businesses in Fife Square - barber, restaurants, Antique store (closed), Dollar Tree, locksmith 3692, 3698, 3710 - three 2-story office buildings with multiple businesses 3722 - Marine Engineers Beneficial Association	10 commercial parcels would have business displacements  Les Schwab = 2 parcels, 3748 Tavern = 2 parcels, 3756 - Kings Inn. 3693 - multiple businesses in Fife Square - barber, restaurants, Antique store (closed), Dollar Tree, locksmith 3721 - small warehouse building 3692, 3698, 3710 - three 2-story office buildings with multiple businesses 3722 - Marine Engineers Beneficial Association	10 commercial parcels would have business displacements 3748 Tavern (and parking, 2 parcels), 3756 Kings Motor Inn, 3757 Taco Time, several buildings in the Fife Business Park (3760, 3768, 3772, 3789), 3721 - small warehouse building, 3742 - 4–6 businesses, one is religious/church tenant. (# of properties with displacements greater than full takes because of large Fife Business Park parcels)	(# of properties with displacements greater than full takes because of large Fife Business Park parcels)
F.23: Estimated number of tribal parcels potentially affected	Number tribal-owned parcels affected by each alternative	One additional tribal parcel would be impacted, SW corner permanent footprint (3487), parcel is also impacted by WSDOT.  One additional TCE parcel (at 62nd & SR 99).	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.	Station site would not impact Tribal trust parcels.

#### Table 2-2 Screening Results for Potential Fife Station Options (continued)

	Performance Rating Notes (all options have center platforms)					
			Fife Pacific Highway - 54th Avenue Station	marice realing roces (an options have center pla	Fife Pacific Highway - 51st Avenue Station	Fife I-5 - 51st Avenue Station Option
Measure	Methodology	Fife - East Station Option (all alternatives)	Option	Fife I-5 - 54th Avenue Station Option	Option	The 1 5 Sist Avenue Station Option
F.24: Potential effects on Section 4(f) parks and recreational resources	Number of impacts and estimated area of potential permanent impacts to parks and recreational resources within 100-foot buffer of each alternative	One Section 4(f) resource is located within the construction footprint of the East Station Option; the same 4(f) property would be used by the guideway for all TDLE alternatives through Fife.	No Section 4(f) resources are located within the footprint of the Fife Pacific Highway - 54th Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.	No Section 4(f) resources are located within the footprint of the Fife I-5 - 54th Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.		No Section 4(f) resources are located within the footprint of the Fife I-5 - 52st Avenue Station Option, although the guideway for all TDLE alternatives through Fife would use one Section 4(f) property.
F.25: Potential effects on Section 4(f) historic resources (buildings) and properties that are listed in or eligible for NRHP	Number of impacts to Section 4(f)	East Station Option would displace one eligible property at 1309 62nd Avenue E; the same 4(f) property would be used by the guideway for all TDLE alternatives through Fife. No additional known NRHP listed or eligible resources within 100-foot buffer.	eligible Section 4(f) property (1309 62nd Avenue E). No known	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife I-5 - 54th Avenue Station Option.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife Pacific Highway - 51st Avenue Station Option.	The guideway for all TDLE alternatives through Fife would use one eligible Section 4(f) property (1309 62nd Avenue E). No known NRHP listed or eligible resources within 100-foot buffer of the Fife I-5 - 51st Avenue Station Option.
F.26: Potential effects on cultural and archaeological resources	Number of potential impacts and probability to encounter cultural and/or archaeological resources within 100-foot buffer of each alternative	Directly adjacent to and potential to affect one NRHP eligible precontact archaeological site. Archaeological site 45PI1555 (historic-period site) is within station area - recommended not NRHP-eligible but not yet determined. Close proximity to Hylebos Creek, high probability area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.	No known cultural/archaeological resources in station area.
F.27: Potential effects to viewsheds along the alignment and potential for impacts to view-dependent businesses	Assessment of impacts to protected views and view-dependent businesses	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.	No effects to protected views or parcels with view-dependent businesses.
F.28: Potential effects on sensitive noise and vibration receptors	Number of potentially affected sensitive receptors within 350-foot buffer of each alternative; sensitive receptors include residences and "others" (schools, churches, parks, hotels, hospitals, libraries, cemeteries, etc.)	Three properties. Two properties directly across 62nd from station site: St Paul Chong Hasang Church (multiple receptors, main church and secondary buildings) Rainier View Senior Apartments (multiple receptors/approx 50 units) One residence directly north of station area.	None (King's Motor Inn would be displaced)	None (King's Motor Inn would be displaced)	Residences on 49th Ave E are more than 350 feet from station platform, but would be within 350 feet of station facilities such as parking.  Additional building removed closest to houses for Pacific Hwy alignments compared to I-5 alignment.  (King's Motor Inn would be displaced).	Residences on 49th Ave E are more than 350 feet from station platform, but some would be within 350 feet of station facilities such as parking (fewer than with the Pacific Hwy alignment because the I-5 alignment's station area would not extend as far north).  (King's Motor Inn would be displaced)
F.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network	Assessment of intersection level of service, and effects on traffic circulation and access for both automobiles and freight, including potential number of lane restrictions, turn restrictions, and driveways impacted	Vehicle delay increase of 87 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 118 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative	Vehicle delay increase of 185 seconds at 5 nearby intersections compared to No-Build Alternative
F.30: Potential effects on freight movement	Assessment of impacts to level of service on freight corridors	Vehicle delay increase of 63 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 91 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 91 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 111 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative	Vehicle delay increase of 111 seconds at 2 intersections on 54th freight corridor compared to No-Build Alternative
F.31: Potential avoidance of hazardous waste	Number of hazardous materials sites within 1/8 mile of each alternative	9 total hazardous materials sites	15 total hazardous materials sites	15 total hazardous materials sites	17 total hazardous materials sites	17 total hazardous materials sites
		Parcels with parking that are potentially impacted: 10 parcels	Parcels with parking that are potentially impacted: 13 parcels	Parcels with parking that are potentially impacted: 14 parcels	Parcels with parking that are potentially impacted: 16 parcels	Parcels with parking that are potentially impacted: 20 parcels
F.32: Potential effects on parking demand and supply	Assessment of impacts on parking supply (review of impacts to parcels with parking)	Parcels with more than 50% of parking potentially impacted: 7 parcels	Parcels with more than 50% of parking potentially impacted: 7 parcels	Parcels with more than 50% of parking potentially impacted: 7 parcels	Parcels with more than 50% of parking potentially impacted: 8 parcels	Parcels with more than 50% of parking potentially impacted: 7 parcels
		Parking acreage potentially impacted: 4.9 acres	Parking acreage potentially impacted: 4.9 acres	Parking acreage potentially impacted: 4.9 acres	Parking acreage potentially impacted: 6.6 acres	Parking acreage potentially impacted: 5.8 acres
Objective: Support equitable						
F.33: Potential benefits to low-income or minority populations	According to the Accord	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 36% minority and 29% low-income population; therefore, the station would serve slightly more minority populations and slightly fewer low-income populations compared to Fife as a whole.		Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 46% minority and 33% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole.	minority and low-income populations compared to Fife as a whole.	Fife is composed of 34.3% minority and 31.0% low-income populations. This station area has a 41% minority and 32% low-income population; therefore, the station would serve more minority and low-income populations compared to Fife as a whole.  The Fife 51st Avenue Station Options are located within 1/2mile of a large low-income apartment complex; the closest of any of the Fife Station Options.

#### Table 2-2 Screening Results for Potential Fife Station Options (continued)

	Table 2-2 Screening Results for Potential Fife Station Options (continued)  Performance Rating Notes (all options have center platforms)					
			Fife Pacific Highway - 54th Avenue Station	mance Rating Notes (an options have center pla	Fife Pacific Highway - 51st Avenue Station	Fife I-5 - 51st Avenue Station Option
Measure	Methodology	Fife - East Station Option (all alternatives)	Option	Fife I-5 - 54th Avenue Station Option	Option	File 1-3 - 51st Avenue Station Option
F.34: Potential for impacts on low- income and/or minority populations	Potential for displacement to affect Environmental Justice populations (minority and low-income)	The Fife East Station Option has a slightly greater percentage of minority population and slightly lower percentage of low-income populations compared to Fife as a whole. However, 2 residential displacements are anticipated, as well as 7 commercial and 1 industrial property. This could impact low-income or minority populations.  The Fife East Station Option is the only potential station option that would displace residential properties, but will displace fewer commercial properties than the other station options.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 21 parcels (10 full and 11 partial). All of the full takes/displacements are of commercial property. This could impact low-income or minority populations.	This station option has a higher percentage of minority and low-	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 17 parcels (7 full and 9 partial). All of the full takes/displacements are of commercial property, many of which are located in a business park with numerous businesses on one property. This could impact low-income or minority populations.	This station option has a higher percentage of minority and low-income populations compared to Fife as a whole and would affect 14 parcels (8 full, 6 partial). All of the full takes/displacements are of commercial property, many of which are located in a business park with numerous businesses on one property. This could impact low-income or minority populations.
Objective: Provide a financi	ally sustainable and constructi	ble project				
		The total alignment length is comparable to 10% design.	The total alignment length is comparable to 10% design.	The total alignment length is comparable to 10% design.	The total alignment length is comparable to 10% design.	The total alignment length is comparable to 10% design.
F.35: Preliminary conceptual estimate	Preliminary conceptual estimates based on conceptual design quantities and current Sound Transit unit pricing. Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.	Guideway structure costs are increased with this station option due to close proximity of the station structure and special trackwork to the SR 167 crossing.  Not located in the center of the business district and has limited business displacements and relocations, resulting in lower real estate costs than the other station options.	Guideway structure costs are similar to the 10% design.  Increased number of business displacements and relocations than the 10% design, but fewer than the 51st Avenue options. The real estate costs would likely be less than those for the 51st Avenue options. Fife Ditch may need to be relocated slightly west.  In general, the Pacific Hwy options will have higher costs than the 15 costs based on 10% design cost estimates.	the 10% design, but fewer than the 51st Avenue options. The real estate costs would likely be less than those for the 51st Avenue options. Fife Ditch may need to be relocated slightly west.	Guideway structure costs are increased with this station option due to the need for 2 single-track long spans at the skewed and curved Pacific Hwy crossing.  Option has the highest potential of business displacements and relocations resulting in highest real estate costs. Piped reach of stream would potentially need to be relocated.  In general, the Pacific Hwy options will have higher costs than the I-5 costs based on 10% design cost estimates.	Guideway structure costs are increased slightly with this station option due to the need for two single-track long spans at Pacific Hwy crossing.  Option has higher potential of business displacements and relocations resulting in higher real estate costs. Piped reach of stream would potentially need to be relocated.
F.36: Operating estimate	Assessment of potential magnitude of operations and maintenance (O&M) estimates based on travel time	Travel time is similar to the 10% design. Magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) more than other options due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.	Travel time increased slightly (a few seconds) from 10% design due to reduced speeds at curves, but magnitude of O&M costs would be similar for all station options.
F.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure	Potential impacts on known major utilities or structures (e.g., power lines, transportation infrastructure)	Utilities: Area is largely clear of any utilities, no impacts to major utilities.  Planned infrastructure: Station option adjacent to WSDOT's SR 167/I-5 to SR 509 Expressway Project, future frontage road.	For both Pacific Highway and I-5 alignments, 54th Ave Station option will likely have minimal to no impacts to major utilities as the proposed station location is largely over existing buildings or area where major utilities are scarce.	For both Pacific Highway and I-5 alignments, 54th Ave Station options will likely have minimal to no impacts to major utilities as the proposed station location is largely over existing buildings or area where major utilities are scarce.	This option would likely produce minimal impacts to utilities as it is largely inline with previous alternative alignments that kept utility impacts minimized. No impacts to major utilities but potential impacts to utilities in 54th Avenue and the Taco Time/Kings Motor Inn parking lot.	This option would likely produce a few impacts to existing utilities because there are utilities in 54th Avenue but also several CenturyLink telecom ducts located in the Taco Time/Kings Motor Inn parking lot. One of the pieces of the CenturyLink system located in the parking lot is an SAE (serving area interface), which are more costly and difficult to relocate than most standard vaults; would be preferable to design to avoid.
F.38: Number of sites requiring environmental remediation within the project footprint of an alternative	Assessment of the number of sites requiring environmental remediation within the project footprint of an alternative	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.	0 hazardous materials sites requiring remediation.
F.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)	Assessment of temporary construction impacts to community, including potential for transportation, noise, vibration, and visual effects that could disrupt the community	Would require close coordination on construction timing with WSDOT and SR 167 to SR 509 Expressway Project and frontage road if construction periods overlap. Church and residential facility directly across 62nd.	Guideway skew (angle) crossing Pacific Hwy adjacent to station more challenging than I-5 alignment.		Guideway skew (angle) exiting station crossing Pacific Hwy more challenging than I-5 alignment.	Construction of station and Pacific Highway crossing adjacent to station would require additional close coordination with WSDOT, Fife, and Port compared to if it was just the guideway. Guideway construction for an I-5 alternative would be in close proximity to Chateau Rainier.
F.40: Availability and potential to use publicly owned right-of-way and publicly owned property	Amount of publicly owned right-of-way and publicly owned property (individual parcels in public ownership) available per conceptual design of alignment	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening
F.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan	lalignment to accommodate future	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening	Not applicable for additional station screening
	Consideration of operational elements (e.g., potential reliability, track alignment, tail tracks and pocket track at Tacoma Dome and South Federal Way, number of at-grade crossings, if any)	Comparable to 10%	Comparable to 10%	Comparable to 10%	Station spanning 51st (minor roadway) not as preferable for long- term operations.	Station spanning 51st (minor roadway) not as preferable for long- term operations.
F.43: Overall schedule risk	Consideration of potential risks to schedule (i.e. potential to increase schedule)	Risk associated with potential cultural resources is highly sensitive on East. Additional coordination with WSDOT on SR 167 / 509 and frontage road crossings.	Increased number displacements and relocations	Increased number displacements and relocations	Increased number displacements and relocations	Increased number displacements and relocations

Lower Performing

# **3 Screening Summary**

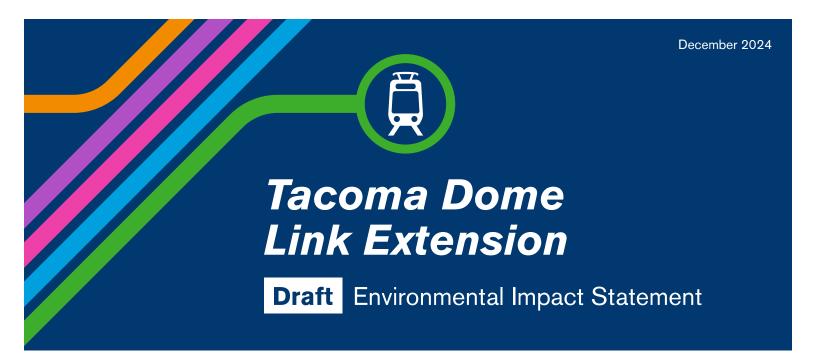
In June and July 2022, Sound Transit held a series of workshops with the Puyallup Tribe of Indians and City of Fife to review potential station options. Through these workshops, the Puyallup Tribe of Indians and the City of Fife stated their preference for the current preferred Fife Station alternative. Additionally, through a collaborative process supported by the screening analysis (summarized in Table 2-2), the parties recommended carrying forward a variation of the 54th Avenue Station Option that would span 54th Avenue E to facilitate connections between the station and the proposed City Center. This variation is called the Fife 54th Span Station Option. In addition, Sound Transit identified the need to carry forward a nonspan station option in this area, referred to as the Fife 54th West Station Option. Table 3-1 summarizes the screening. The Fife Pacific Highway, Fife Median, and Fife I-5 alternatives would all have the same station location for these options. The guideway's alignment would differ as it enters and exits the station, depending on the alternative.

TABLE 3-1 SCREENING SUMMARY

Fife Station Option	Screening Summary		
Fife – East Station Option	*	Remove due to proximity to high probability for cultural resources, and it is located outside the Fife Center of Local Importance (COLI) for their proposed City Center.	
Fife Pacific Highway/I-5 – 54th Avenue Station Option	✓	Advance for further study.	
Fife 54th Span Station Option	<b>√</b>	Advance for further study.	
Fife Pacific Highway – 51st Avenue Station Option	×	Remove due to greater potential impacts to businesses and distance from the Fife COLI for their proposed City Center.	
Fife I-5 – 51st Avenue Station Option	×	Remove due to greater potential impacts to businesses and distance from the Fife COLI for their proposed City Center.	

# 4 Next steps

Sound Transit will conduct a project update with the community and seek feedback on the potential Fife Station options. Following the project update, Sound Transit will summarize public feedback for the Sound Transit Board's consideration. The Sound Transit Board will then identify station option(s) to study further in the Draft Environmental Impact Statement.



# SCREENING FOR ADDITIONAL ALTERNATIVES IN SOUTH FEDERAL WAY TO MILTON

Appendix I6





Tacoma Dome Link Extension

# Draft – Screening for Additional Alternative in South Federal Way to Milton



CENTRAL PUGET SOUND
REGIONAL TRANSIT AUTHORITY



Tacoma Dome Link Extension

# Screening for Additional Alternative in South Federal Way to Milton

Prepared for:
Sound Transit

Prepared by: HDR & Parametrix

March 2023

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#### **ATTACHMENT**

Attachment 1 Correspondence

# **Acronyms and Abbreviations**

Board Sound Transit Board of Directors

I-5 Interstate 5

NRHP National Register of Historic Places

PSRC Puget Sound Regional Council

Puyallup Tribe of Indians Puyallup Tribe of the Puyallup Reservation

SEPA State Environmental Policy Act

Sound Transit Central Puget Sound Regional Transit Authority

SR State Route

ST3 Plan Sound Transit 3 Plan

TDLE Tacoma Dome Link Extension

# 1 Introduction

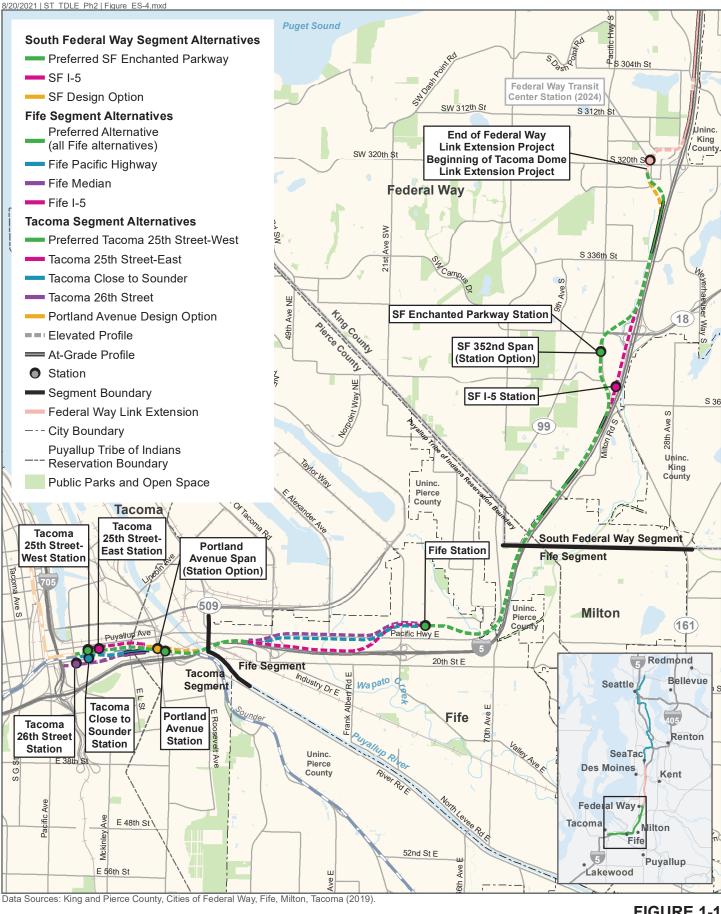
In 2018 and 2019, Central Puget Sound Regional Transit Authority (Sound Transit) completed an alternatives development process to identify station and alignment alternatives to study in the Tacoma Dome Link Extension (TDLE) Environmental Impact Statement (EIS). That process included three levels of screening: prescreening, Level 1, and Level 2 alternatives evaluation. The alternatives development process began with early scoping under the State Environmental Policy Act (SEPA) in April 2018 and scoping under the National Environmental Policy Act (NEPA) in April 2019. Information on the early scoping process, scoping, and development of the alternatives is included in Appendix I, Alternatives Development Supporting Documents.

In July 2019, the Sound Transit Board of Directors (Board) identified the alternatives for study in this Draft EIS. The Board also identified a Preferred Alternative in the South Federal Way and Tacoma segments as well as in a portion of the Fife Segment, which is shown in Figure 1-1. The portion of the alignment identified as preferred included a single guideway alignment south of Enchanted Parkway to the Fife Station, which was supported by the Puyallup Tribe of the Puyallup Reservation (Puyallup Tribe of Indians) and the cities of Federal Way, Milton, and Fife.

As the analysis of alternatives for the Draft EIS was being developed, coordination with Regional Tribal Partners identified more information on known cultural resources adjacent to I-5 in the South Federal Way Segment. 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 based on that new information.

This memorandum is organized into the following sections:

- 1. Introduction
- 2. Potential South Federal Way to Milton Additional Alternatives Evaluation
- 3. Screening Summary
- 4. Next Steps



Alternatives Identified in 2019 for Study in the
Draft Environmental Impact Statement

Tacoma Dome Link Extension

2 Miles

# 2 Potential Additional Alternatives Evaluation

### 2.1 Development of Potential Additional Alternatives for Screening

Developing potential additional alternatives in the South Federal Way Segment to evaluate in the screening involved three steps: 1) identifying potential additional alternatives outside of the areas sensitive for known cultural resources within the limits of the project corridor, 2) considering whether the potential additional alternatives being studied satisfy the purpose and need for the project, and 3) evaluating the potential additional alternatives for consistency with the Sound Transit 3 (ST3) Plan, which is the basis for the proposed project. Sound Transit and the Federal Transit Administration met with the Puyallup Tribe of Indians and the cities of Federal Way and Milton to obtain input on adding an additional alternative in South Federal Way Segment.

The potential additional alternatives were then evaluated using applicable criteria from the Level 1 and 2 alternatives evaluations, such as transportation benefits, cost, ridership, transit oriented development, land use plans, technical feasibility, and environmental impacts. An opportunity for public feedback was provided as Sound Transit updated the community on this topic in late February to March 2023. These evaluations, input from the Puyallup Tribe of Indians cities of Federal Way and Milton, and public feedback will help inform the additional alternative to be included in the Draft EIS.

#### 2.2 Evaluation Criteria

The Purpose and Need established five objectives that have been used to develop the evaluation criteria and measures. The objectives are to:

- Provide effective transportation solutions to meet mobility, access, and capacity needs
- Support sustainable land use plans, economic development, and transit oriented development
- Preserve the environment
- Support equitable mobility
- Provide a financially sustainable and constructible project

The evaluation criteria and measures listed in Exhibit 2-1, Evaluation Criteria, show the criteria used to assess the differences in performance or potential effects among the Level 1 and Level 2 alternatives, as well as the potential additional alternatives. The qualitative and quantitative measures were used to determine how additional alternatives performed when compared to each other.

Additional descriptions for how the criteria was used to evaluate the objectives is included in Appendix I, Attachments I3 (Pre-Screening and Level 1 Alternatives Evaluation Report) and I4 (Level 2 Alternatives Evaluation Report) to the Draft EIS.

#### Table 2-1 **Evaluation Criteria**

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Additional Alternative Evaluation Measures							
Objective: Provide Effective T	ransportation Solutions to meet Mobility, Access, a	and Capacity Needs								
Purpose and Need:	Purpose and Need:									
	y rapid, reliable, and efficient light rail transit service ound Transit 2016)¹.	e to communities in the project corridor, as defined	through the local planning process and reflected							
<ul> <li>Improve regional m projected transit de</li> </ul>	obility by increasing connectivity and capacity in th mand.	e TDLE corridor from the Federal Way Transit Cer	nter to the Tacoma Dome Station area to meet							
<ul> <li>Expand mobility for</li> </ul>	the corridor and region's residents, which include	transit dependent, low-income, and minority popula	ations.							
Ridership Potential	L1.1: Travel time	L2.1: Travel time	SF.1: Travel time							
	L1.2: Total population and employment (2035) within 1/2 mile of stations	L2.2: Daily and annual projected project ridership (2042)	SF.2: Daily and annual projected project ridership (2042)							
	L1.3: Proximity to existing/future population and employment centers/activity centers and major destinations within 1/2 mile of stations	L2.3: Projected station boardings (2042) L2.4: Proximity to Puget Sound Regional Council (PSRC) growth centers and manufacturing/industrial centers	SF.3: Projected station boardings (2042) SF.4: Proximity to Puget Sound Regional Council (PSRC) growth centers and manufacturing/industrial centers							
		L2.5: Population (persons/acre) and job (jobs/acre) densities	SF.5: Population (persons/acre) and job (jobs/acre) densities							
Purpose and Need:  • Connect communit	le Land Use Plans, Economic Development, and T ies of Federal Way, Milton, Fife, Tacoma, and the Fescribed in adopted regional and local land use, trait 2014a).	Puyallup Tribe of Indians to regional centers and de								
	le and sustainable urban growth in station areas th al land use plans and policies, including Sound Trai									
Encourage conveni	ient and safe nonmotorized access to stations such	as bicycle and pedestrian connections consistent	with Sound Transit's System Access Policy.							
Supports future TOD opportunities	L1.4: Consistency with local and tribal economic development goals, planned development, current and anticipated zoning, and/or comprehensive plans L1.5: Barriers that limit the development potential, walkshed, and range and safety of bicycling around the station such as topography, wide roads, highways, bodies of water, and railways L1.6: Presence of amenities to catalyze complete neighborhoods, such as	L2.6: Consistency with civic and community planning and land use, evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans  L2.7: Likelihood of station area redevelopment into transit oriented neighborhood  L2.8: Detailed evaluation of nonmotorized barriers within a ½-mile of the station  L2.9: Presence of amenities that can catalyze	SF.6: Consistency with adopted civic and community planning and land use, evaluating elements such as local and tribal development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans  SF.7: Likelihood of station area redevelopment into transit oriented neighborhood  SF.8: Inventory of nonmotorized barriers within a ½-mile of the station							

neighborhoods

shops, services, schools, recreational

views/access to nature

facilities, civic or character amenities, or

development of transit-oriented

neighborhoods

SF.9: Presence of amenities that can catalyze

development of transit-oriented

**Evaluation Criteria (continued)** Table 2-1

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Additional Alternative Evaluation Measures
Promotes multimodal access and connections	L1.7: Qualitative assessment of bicycle and pedestrian accessibility and potential for improvement  L1.8: Qualitative assessment of transit connections and potential for improvement within station areas	pedestrian accessibility and potential for improvement  1.8: Qualitative assessment of transit connections and potential for  L2.11: Ease of vehicular pick-up/drop-off for a variety of users  L2.12: Connections with local and regional	
		and access to stations	bicycle facilities (existing and planned) and access to stations
		L2.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations	SF.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations
Objective: Preserve the Enviro	onment		
Purpose and Need:			
Preserve and promo	ote a healthy environment and economy by minimi	zing adverse impacts on the natural, built, and soci	al environments.
Effects on the natural	L1.9: Proximity to major wetlands, streams,	L2.14: Potential effects to wetlands	SF.14: Potential effects to wetlands
environment	floodplains, steep slopes, Endangered Species Act (ESA) species, fisheries, or	L2.15: Potential effects to streams/stream crossings	SF.15: Potential effects to streams/stream crossings
	other natural habitat areas within 100 feet of an alternative (in acres of	L2.16: Potential to affect protected species and habitats	SF.16: Potential to affect protected species and habitats
resources)		L2.17: Potential effects to vegetated areas	SF.17: Potential effects to vegetated areas
		L2.18: Potential effects to floodplains	SF.18: Potential effects to floodplains
		L2.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)	SF.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)

Table 2-1 Evaluation Criteria (continued)

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Additional Alternative Evaluation Measures
Effects on the built environment	L1.10: Estimated levels of property impacts (residential, commercial, other) and number of large tax-generating properties affected L1.11: Estimated number of tribal parcels affected L1.12: Presence of known Section 4(f), park, historic, culturally significant tribal properties, or other protected areas L1.13: Presence of a viewshed or proximity to view-dependent businesses L1.14: Potential for impacts from vibration and noise L1.15: Potential for affecting areas with existing traffic congestion L1.16: Potential for affecting parking supply and demand and spillover parking effects L1.17: Potential avoidance of hazardous waste	L2.20: Estimated number of affected parcels and total acreage by property type  L2.21: Estimated number of affected parcels with major economic activity generators  L2.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating  L2.23: Estimated number of tribal parcels potentially affected  L2.24: Potential effects on Section 4(f) parks and recreational resources  L2.25: Potential effects on Section 4(f) historic resources and properties that are listed in or eligible for the National Register of Historic Places (NRHP)  L2.26: Potential effects on Section 4(f) cultural and archaeological resources  L2.27: Potential effects to viewsheds along the alignment and potential for impacts to view-dependent businesses  L2.28: Potential effects on sensitive noise and vibration receptors  L2.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network  L2.30: Potential effects on freight movement  L2.31: Potential effects on parking demand and	SF.20: Estimated number of affected parcels sf.21: Estimated number of affected parcels with major economic activity generators SF.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating SF.23: Estimated number of tribal parcels potentially affected SF.24: Potential effects on Section 4(f) parks and recreational resources SF.25: Potential effects on Section 4(f) historic resources and properties that are listed in or eligible for the National Register of Historic Places (NRHP) SF.26: Potential effects on cultural and archaeological resources SF.27: Potential effects to viewsheds along the alignment and potential for impacts to view-dependent businesses SF.28: Potential effects on sensitive noise and vibration receptors SF.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network SF.30: Potential effects on freight movement SF.31: Potential avoidance of hazardous waste SF.32: Potential effects on parking demand and supply
	for the corridor and region's residents, which include		
Provide equitable transit service to low-income, minority, and transit- dependent populations	L1.18: Qualitative demographic differences among the option census data (households with no car, low-income, and minority populations) in station areas  L1.19: Potential for impacts on low-income and minority populations	L2.33: Potential benefits to low-income or minority populations L2.34: Potential for impacts on low-income and/or minority populations	SF.33: Potential benefits to low-income or minority populations SF.34: Potential for impacts on low-income and/or minority populations

Table 2-1 **Evaluation Criteria (continued)** 

Evaluation Criteria	Level 1 Measures (2018)	Level 2 Measures (2019)	Additional Alternative Evaluation Measures							
Objective: Provide a Financial Purpose and Need:	Objective: Provide a Financially Sustainable and Constructible Project Purpose and Need:									
Implement a system	n that is technically and financially feasible to build	, operate, and maintain.								
Financial considerations	L1.20: Major cost elements beyond the representative project description	L2.35: Preliminary conceptual estimate <sup>2</sup> L2.36: Operating estimate	SF.35: Preliminary conceptual estimate <sup>2</sup> SF.36: Operating estimate							
Constructibility and engineering considerations	L1.21: Potential risks (major utilities or structures) L1.22: Availability and potential to use publicly owned right-of-way L1.23: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan	L2.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure  L2.38: Number of sites requiring environmental remediation within the project footprint of an alternative  L2.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)  L2.40: Availability and potential to use publicly owned right-of-way and publicly owned property  L2.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan	SF.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure  SF.38: Number of sites requiring environmental remediation within the project footprint of an alternative  SF.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)  SF.40: Availability and potential to use publicly owned right-of-way and publicly owned property  SF.41: Capability to accommodate future expansion included in the Sound Transit Long-Range Plan							
Operational considerations	L1.24 Consideration of operational elements (e.g., potential reliability, track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)	L2.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)	SF.42: Assessment of operational elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at-grade crossings, if any)							
Schedule considerations	L1.25: Overall schedule risk	L2.43: Overall schedule risk	SF.43: Overall schedule risk							

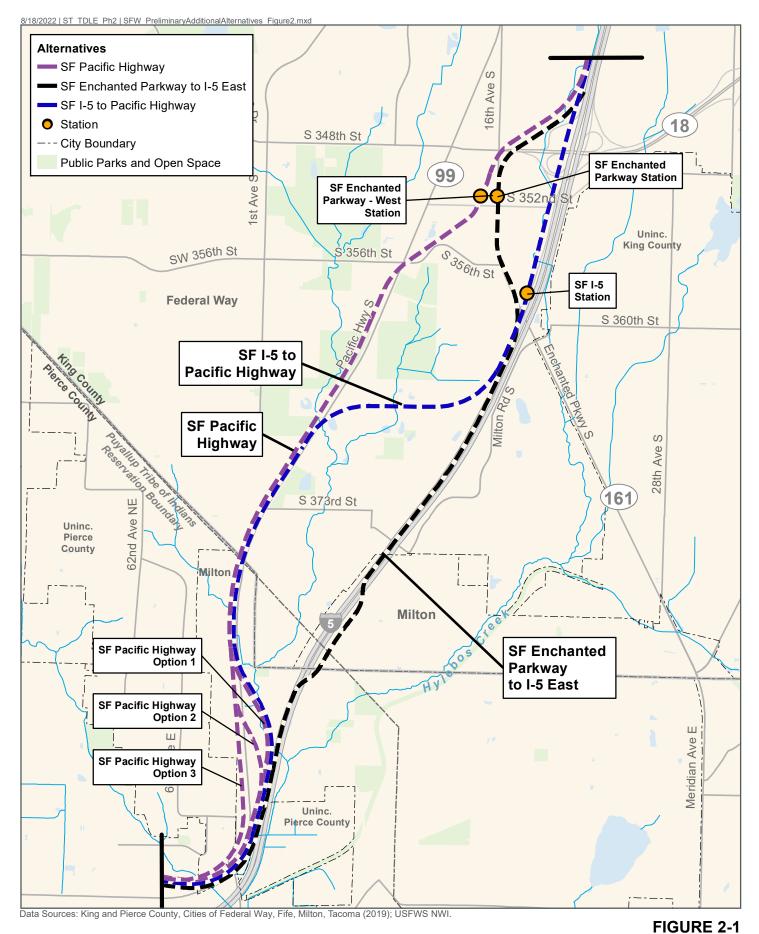
Sound Transit. 2016. Sound Transit 3: The Regional Transit System Plan for Central Puget Sound. June 2016.
 Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.

#### 2.3 Potential Additional Alternatives

In 2022, Sound Transit identified three routes for developing potential additional alternatives, as shown in Figure 2-1. The potential additional alternatives are located in the cities of Federal Way and Milton, spanning King and Pierce Counties. The study area for this screening begins at S 344th Street in the City of Federal Way and extends to the boundary of unincorporated Pierce County and City of Fife's city limits near Wapato Way E. For screening, the potential additional alternatives were named:

- SF Pacific Highway
- SF I-5 to Pacific Highway
- SF Enchanted Parkway to I-5 East

Through early coordination with the Puyallup Tribe of Indians, three options were explored near Porter Way to connect from Pacific Highway E to the preferred alternative's guideway. Input from the City of Milton also indicated the importance of minimizing impacts to streams and wetlands. Table 2-2 presents the screening results for each of the potential additional alternatives.



		Performance Rating Notes				
			SF Pacific Highway (SF Enchanted Parkway - West Station)			
Measure	Methodology	<b>Option 1</b> (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
		eet Mobility, Access, and Capacity Needs	(Galaciva) Stilles West of Option 1)	(Guideway West of Facine Fiighway)	(St. 1.9 Station)	(or Enerance Fanway Station)
SF.1: Travel time	Estimated based on alignment length, percent of alignment with horizontal speeds below 55 MPH		Travel time would increase slightly due to an increased guideway length added by this alternative, and slightly slower curves getting to/from Pacific Highway.  Approximate percentage of alignment length below 55 mph: 41%	Travel time would increase slightly due to slightly slower curves getting to Pacific Highway and near 70th Avenue E.  Approximate percentage of alignment length below 55 mph: 31%	Travel time would increase slightly due to an increased guideway length added by this alternative.  Approximate percentage of alignment length below 55 mph: 41%	Travel time would increase slightly due to the lower speeds associated with the introduced curves to/from the east side of I-5.  Approximate percentage of alignment length below 55 mph: 37%
SF.2: Daily and annual projected project ridership (2042) <sup>1</sup>	Average daily projected riders (baseline estimate provided for South Federal Way station area, with qualitative differences noted for station/alignment alternatives) South Federal Way: 12,730 Daily NB; 12,730 Daily SB	Moderate ridership potential due to relative potential retail and proximity to I-5).	derate ridership potential due to relative potential for transit oriented development growth and multimodal station access (abundance of existing big-box			Moderate ridership potential due to relative potential for transit oriented development growth and multimodal station access (abundance of existing big-box retail and proximity to I-5).
SF.3: Projected station boardings (2042) <sup>1</sup>	Projected station boardings (baseline estimate provided for South Federal Way station area, with qualitative differences noted for station/alignment alternatives)  South Federal Way: 1,100 Daily NB; 330 Daily SB	Moderate level of projected station boardings due to (abundance of big-box retail and proximity to I-5).	loderate level of projected station boardings due to relative potential for transit oriented development growth and multimodal station access bundance of big-box retail and proximity to I-5).			Moderate level of projected station boardings due to relative potential for transit oriented development growth and multimodal station access (abundance of big-box retail and proximity to I-5).
SF.4: Proximity to Puget Sound Regional Council growth centers and manufacturing/industrial Centers <sup>1</sup>	% Puget Sound Regional Council Growth Center and/or manufacturing/industrial center within 10-minute walkshed	0% No Puget Sound Regional Council regional growth cen	0% No Puget Sound Regional Council regional growth center or manufacturing/industrial center.			0% No Puget Sound Regional Council regional growth center or manufacturing/industrial center.
SF.5: Population (persons/acre) and job (jobs/acre) densities <sup>1</sup>	Existing and future (2040) population and employment densities within 10- minute walkshed (PSRC Land Use Vision Dataset)	Population densities (existing 236/future 259) and em High population density, high population growth. Medium job density, high job growth.	ployment densities (existing 66/ future 85).		Population densities: existing 326/future 344 Employment densities: existing 70/future 82 Highest population density, lowest population growth. Highest job density, lowest job growth.	Population densities (existing 236/future 259) and employment densities (existing 66/ future 85). High population density, high population growth. Medium job density, high job growth.
Objective: Support Sustain	able Land Use Plans, Transit-Ori	ented Development, and Multimodal Station	Access			
SF.6: Consistency with adopted civic and community planning and land use, evaluating elements such as: local and triba development goals, current and planned development, current and anticipated zoning, and/or comprehensive plans	Assessment of the civic and land use documents that are relevant and up to date in each station area. Evaluate each station location against the relevant documents/civic plans rating each plan as "consistent with TOD around alternative location"(+), "neutral", or "inconsistent with TOD around alternative location"(-)	Land use, zoning, and current comprehensive planning	nd use, zoning, and current comprehensive planning is not compatible with mixed-use transit-oriented development with mixed residential and commercial es in proximity to transit. The City of Federal Way is currently updating their comprehensive plan (anticipated to be adopted in 2024), adding a chapter and			Land use, zoning, and current comprehensive planning is not compatible with mixed-use transit-oriented development with mixed residential and commercial uses in proximity to transit. The City of Federal Way is currently updating their comprehensive plan (anticipated to be adopted in 2024), adding a chapter and subarea plan for the South Federal Way station area.
SF.7: Likelihood of station area redevelopment into transitoriented neighborhood	Assessment of degree to which the station area has land available to support development into a transitoriented neighborhood, as measured by the amount of land within a ¼ mile walking distance of station that has a relatively greater likelihood to redevelop into transit-supportive uses	Total acreage in walkshed: 52.4-56.6 Acreage not available for redevelopment: 8.9-9.4 acre The station is farther from I-5, which results in more la			Total acreage in walkshed: 36.3 Acreage not available for redevelopment: 15.1 acres (41.7%) The station is adjacent to I-5, which results in less land overall that is available for redevelopment.	Total acreage in walkshed: 55.1 Acreage not available for redevelopment: 8.8 acres (16.0%) The station is farther from I-5, which results in more land overall that could redevelop.

		Performance Rating Notes					
			SF Pacific Highway				
		Oution 4	(SF Enchanted Parkway - West Station)	Oution 2	CE I E An Doniffo Highway	CF Fachanted Badanas to T F Fact	
Measure	Methodology	Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)	
SF.8: Inventory of nonmotorized barriers within a ½ mile of the station <sup>1</sup>	Assessment of barriers within half- mile of TDLE station areas (barriers list: (1) Topography (hills) that limit the walkshed, (2) Wide roads, (3) Highways, (4) Bodies of water, (5) Railways)	Station is one of the best from a barriers point of view. north), it is on the same block as all the amenities at Fe alternatives and stations in Level 2 screening.			This station has lower connectivity. The station is bounded by I-5 with an difficult to cross overpass and the sidewalks end on the other side. Enchanted Parkway to the west is difficult to cross.  The Washington State Department of Transportation's planned exit ramps and roundabout will create additional nonmotorized barriers.  There is a substantial grade change to the west that limits the potential for future connectivity across Enchanted Parkway. This location is bounded by I-5 and Enchanted Parkway to the south and is most impacted by the steep grade west of Enchanted Parkway.	Station is one of the best from a barriers point of view. Even though it has many large roads surrounding it (Enchanted Parkway, SR 99, 348th Street to the north), it is on the same block as all the amenities at Federal Way Crossing, and the crossing over 352nd Street is relatively less difficult compared to other alternatives and stations in Level 2 screening.	
SF.9: Presence of amenities that can catalyze development of transit-oriented neighborhoods	Assessment of amenities that can catalyze complete transit-oriented neighborhoods in station area.	This station could impact the following amenities that of Catapult, and LA Fitness in Federal Way Crossing, but not a transit-oriented development amenity. Better connections	ostly leaves Federal Way Crossings intact. It also co		Todd Beamer High School to the southwest. Retail amenities clustered around 348th Street can be accessed to north via a several minute walk.	·	
SF.10: Proximity to local bus, and other transit facilities and services	Distance to nearest existing bus stop; measure of the level of diversion that could be required.	About 450 to 525 feet from the southbound bus stop a Moderate amount of transit diversion.	Enchanted Parkway and S 352nd Street.		Parkway and S 356th Street.	450 feet from the southbound bus stop at Enchanted Parkway and S 352nd Street. Moderate amount of transit diversion.	
SF.11: Ease of vehicular pickup/drop-off for a variety of users <sup>1</sup>	up/drop-off at stations due to nearby	<ul> <li>Drivers from all directions would be able to access th</li> <li>Left-turn access out of the lot possible at west drivew</li> <li>Left turns out of the lot may incur more delay than St screening)</li> </ul>	ay		directions would be able to access the pickup/drop-off area and then continue in any direction except directly eastbound on SR 18 or southbound on I-5.	<ul> <li>Drivers from all directions would be able to access the pick-up/drop-off area and then continue in any direction</li> <li>Left-turn access out of the lot possible at west driveway</li> <li>Left turns out of the lot may incur more delay than SF 3,</li> <li>SF 8, and SF 9 (options located on the east side of Enchanted Parkway that were evaluated in Level 2 screening)</li> </ul>	
SF.12: Connections with local and regional bicycle facilities (existing and planned) and access to stations <sup>1</sup>	protected lanes, trails) to total	Moderate ratio of existing and funded bike facility miles to roadway miles. xisting: 0.22 unded: 0.22		Existing: 0.66 Funded: 0.70	Moderate ratio of existing and funded bike facility miles to roadway miles. Existing: 0.22 Funded: 0.22		
SF.13: Connections with local pedestrian facilities (existing and planned) and pedestrian access to stations <sup>1</sup>	Ratio of existing and funded pedestrian facility miles (trails, sidewalks) to total roadway miles within a 10-minute walkshed of stations	High ratio of existing and funded pedestrian facility mil Existing: 0.82 Funded: 0.86	es to roadway miles, low topographical challenges.		Moderate ratio of existing and funded pedestrian facilities to roadway miles, low topographical challenges. Existing: 0.66 Funded: 0.70 The planned roundabout on Enchanted Parkway and S 356th Street will create a large impediment to pedestrian access directly adjacent to the station.	High ratio of existing and funded pedestrian facility miles to roadway miles, low topographical challenges. Existing: 0.82 Funded: 0.86	

			SF Pacific Highway (SF Enchanted Parkway - West Station)			
Measure	Methodology	<b>Option 1</b> (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	<b>Option 3</b> (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
Objective: Preserve the E		(Guideway furthest east flear Forter Way)	(Guideway Stiffts West of Option 1)	(Guideway West of Facilit (Tilgriway)	(3i 1-3 Station)	(3) Elichanteu Parkway Station)
SF.14: Potential effects to wetlands	Extent and quality of wetlands within 100-foot buffer of each alternative	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands associated with lower reaches of West Fork Hylebos Creek and along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Incremental impacts to wetland complex at existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to forested habitat in and near wetlands along the main stem of Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway impacts the periphery of a large, high-quality wetland for approximately 1,000 linear feet just south of S 356th Street.	Approximately 1,000 linear-foot crossing of a large, high-quality wetland complex southwest of Todd Beamer High School. Impacts to wetland complex downstream of existing Pacific Highway/West Fork Hylebos Creek crossing. Impacts to wetlands associated with lower reaches of West Fork Hylebos Creek and along the main stem of Hylebos Creek.	Minor impacts (<1 acre) to small, isolated wetlands along I-5 and near southernmost crossing of West Fork Hylebos Creek. Impacts to wetlands along the main stem of Hylebos Creek.
SF.15: Potential effects to streams/stream crossings		6 stream crossings.  * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange  * No impacts to West Fork Hylebos Creek tributary  * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing  * Impacts to riparian habitat along approximately 1,600 linear feet of the lower reaches of West Fork Hylebos Creek (including 2 crossings)  * Parallels Stream SMI-01 for approximately 900 linear feet  * Impacts to riparian habitat (mostly shrubdominated) along main stem of Hylebos Creek  If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	4 stream crossings.  * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange  * No impacts to West Fork Hylebos Creek tributary  * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing  * No impacts along the lower reaches of West Fork Hylebos Creek  * Parallels Stream SMI-01 for approximately 600 linear feet  * Impacts to riparian habitat (mostly shrub- dominated) along main stem of Hylebos Creek  If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	4 stream crossings.  * Crosses East Fork Hylebos Creek tributary north of I-5/SR 18 interchange  * No impacts to West Fork Hylebos Creek tributary  * Impacts to forested riparian habitat at existing Pacific Highway/West Fork Hylebos Creek crossing  * No impacts along the lower reaches of West Fork Hylebos Creek  * Impacts to forested riparian habitat along main stem of Hylebos Creek  If the station platform is parallel to Enchanted Parkway, potential effects to riparian habitat near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	7 stream crossings (possibility of reducing to 5, pending design refinements).  * Impacts to East Fork Hylebos Creek tributary near I-5/SR 18 interchange (approximately 1,600 linear feet)  * Crossing of West Fork Hylebos Creek tributary and high-quality riparian habitat  * Impacts to mixed forested/disturbed riparian habitat at existing Pacific Highway crossing of West Fork Hylebos Creek  * Impacts to riparian habitat along approximately 1,600 linear feet of the lower reaches of West Fork Hylebos Creek (including 2 crossings) (impacts may be reduced through design refinements)  * Parallels Stream SMI-01 for up to 900 linear feet  * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek	3 stream crossings.  * Impacts to East Fork Hylebos Creek tributary near I-5/SR 18 interchange (approximately 1,600 linear feet)  * Impacts to lower West Fork Hylebos Creek riparian area (approximately 800 linear feet)  * No impacts to West Fork Hylebos Creek tributary or West Fork Hylebos Creek at existing Pacific Highway crossing  * Parallels Stream SMI-01 for approximately 900 linear feet  * Impacts to riparian habitat (mostly shrub-dominated) along main stem of Hylebos Creek
SF.16: Potential to affect protected species and habitats		Impacts to fish-bearing streams at the existing Pacific Highway/West Fork Hylebos Creek crossing, along the lower reaches of West Fork Hylebos Creek, and at the crossing of the main stem of Hylebos Creek. Affects more fish-bearing streams than Options 2 and 3.	Impacts to fish-hearing streams at the existing Pacific		Impacts to fish-bearing streams at crossing of West Fork Hylebos Creek tributary, downstream of existing Pacific Highway/West Fork Hylebos Creek crossing, along the lower reaches of West Fork Hylebos Creek, and at the crossing of the main stem of Hylebos Creek.	Impacts to fish-bearing streams at the crossing of West Fork Hylebos Creek adjacent to I-5 and at the crossing of the main stem of Hylebos Creek.
SF.17: Potential effects to vegetated areas		Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with lower reaches of West Fork Hylebos Creek and mainstem Hylebos Creek, affecting more forested habitat than Options 2 and 3. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with mainstem Hylebos Creek. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	Impacts to edges of large patches of mature forest along Pacific Highway. Alignment passes through areas of forested habitat associated with mainstem Hylebos Creek, affecting slightly more forested area than Option 2 but less than Option 1. If the station platform is parallel to Enchanted Parkway, guideway affects forested area near headwaters of West Fork Hylebos Creek tributary just south of S 356th Street.	additional impacts to forested areas downstream of existing Pacific Highway/West Fork Hylebos Creek crossing.	Impacts to narrow strips of vegetation (which includes
SF.18: Potential effects to floodplains/ water resources	Impacts to FEMA  floodplains/floodways (both manned)	Floodplain crossing approximately 935 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 415 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 350 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 935 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.	Floodplain crossing approximately 515 feet, including mapped FEMA floodway crossings just north of Porter Way as well as directly north of the roundabout at Pacific Highway and Wapato Way E.

		Performance Rating Notes				
Measure	Methodology	Option 1 (Guideway furthest east near Porter Way)	(SF Enchanted Parkway - West Station)  Option 2  (Guideway shifts west of Option 1)	<b>Option 3</b> (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
SF.19: Presence of geologic hazard areas (steep slopes, erosion, or landslide hazard areas)	Impacts to geologic hazard areas (steep slope, erosion, landslide hazard areas)	Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Wa	ay and Milton, high liquefaction susceptibility in Uninco	orporated Pierce County and Fife.	Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Way and Milton, high liquefaction susceptibility in Unincorporated Pierce County and Fife.	Lahar hazard zone in southern portion of alternative. Generally low liquefaction susceptibility in Federal Way and Milton, high liquefaction susceptibility in Unincorporated Pierce County and Fife.
SF.20: Estimated number of affected parcels and total acreage	Assessment of parcels potentially affected (partial and full) and general estimate of acreage of land converted from other land uses to a transportation use.	Estimated number of affected parcels: 92 -103 King County: 48-59 Pierce County: 44  Estimated potential acres impacted: 88 - 96 acres King County: 61-69 acres Pierce County: 27 acres	Estimated number of affected parcels: 89 -100 King County: 48-59 Pierce County: 41  Estimated potential acres impacted: 92 - 100 acres King County: 61-69 acres Pierce County: 31 acres	Estimated number of affected parcels: 116-127 King County: 48-59 Pierce County: 68  Estimated potential acres impacted: 93 - 101 acres King County: 61-69 acres Pierce County: 32 acres	Estimated number of affected parcels: 109 King County: 54 Pierce County: 55  Estimated potential acres impacted: 75 acres King County: 48 acres Pierce County: 27 acres	Estimated number of affected parcels: 61 King County: 37 Pierce County: 24  Estimated potential acres impacted: 49 acres King County: 33 acres Pierce County: 16 acres
SF.21: Estimated number of affected parcels with major economic activity generators			Approximately 22-28 businesses displaced, including 2-3 strip mall retail centers, 7 commercial/office uses, 7 auto service providers.		Approximately 11-16 businesses displaced, including 1 auto	Approximately 17-23 businesses displaced, including 2-3 strip mall retail centers, 1 industrial business, 3 commercial uses, 3 auto service providers, 1 boat dealer, and 1 office (Container Storage).
SF.22: Estimated number of displacements by property type; impacts to important community facilities (such as churches, hospitals, and community centers) will also be factored into this rating	property impacts from alignment and station by property type	Residential Displacements: 87 units (84 units in former Red Lion) Commercial Displacements: 20-26 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 85 units (84 units in former Red Lion) Commercial Displacements: 22-28 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Residential Displacements: 109 units (84 units in former Red Lion) Commercial Displacements: 17-23 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring Valley)	Commercial Displacements: 11-16 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 1 (frontage of Montessori Academy at Spring	Residential Displacements: 124 units (36 units in CrossPointe Apartments, 84 units in former Red Lion) Commercial Displacements: 17-23 Hospitals = 0 Libraries = 0 Police + Fire = 0 Community Centers = 0 Schools = 0
SF.23: Estimated number of tribal parcels potentially affected	Number of tribal-owned parcels affected by each alternative	Potential effects on one Tribal property.	Potential effects on three Tribal properties. Temporary construction easements would be needed on three additional properties.	Potential effects on five Tribal properties.	Potential effects on one Tribal property.	Temporary construction easements would be needed on two Tribal properties.
SF.24: Potential effects on Section 4(f) parks and recreational resources	potential permanent impacts to parks	A small portion of permanent and temporary footprin 356th Street and Hylebos Wetlands to the west, south Property, all of which are identified as open space in t Plan. If the station platform is parallel to Enchanted F Hylebos Wetlands.	n of S 363rd Street and the West Hylebos Osaka the Federal Way Parks, Recreation and Open Space	A small portion of permanent and temporary footprint traverse the Hylebos Wetlands to the east near S 356th Street and Hylebos Wetlands to the west, south of S 363rd Street, all of which are identified as open space in the Federal Way Parks, Recreation and Open Space Plan. Option 3 would be adjacent to the and the West Hylebos Osaka Property, but would not cross it. If the station platform is parallel to Enchanted Parkway, guideway would have greater impacts to the Hylebos Wetlands.		None.

		Performance Rating Notes				
			SF Pacific Highway (SF Enchanted Parkway - West Station)			
Measure	Methodology	Option 1 (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	Option 3 (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
SF.25: Potential effects on Section 4(f) historic resources (buildings) and properties that are listed in or eligible for the National Register of Historic Places	Estimated number of impacts to Section 4(f) resources and properties listed in or eligible for the National Register of Historic Places within 100- foot buffer of each alternative Resources assessed not eligible for	An estimated 24-25 historic-period resources not curre NRHP-eligible resource (Gethsemane Cemetery).  No Section 4(f) historic resources or properties that an identified within the SF Pacific Highway Alternative for	e listed in or eligible for the NRHP have been	An estimated 34 historic-period resources not currently formally evaluated for NRHP eligibility, one NRHP-eligible resources (Gethsemane Cemetery), and one presumed NRHP-eligible resource not visible from the ROW.  No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF Pacific Highway Alternative footprint.		An estimated two historic-period resources not currently formally evaluated for NRHP eligibility and one NRHP-eligible resource (Gethsemane Cemetery).  No Section 4(f) historic resources or properties that are listed in or eligible for the NRHP have been identified within the SF Enchanted Parkway to I-5 East Alternative footprint.
SF.26: Potential effects on cultural and archaeological resources	cultural and/or archaeological	Three archaeological sites, one archaeological isolate, and one cemetery are within 100-foot buffer of the alternative. One of the archaeological sites and the archaeological sites and the archaeological sites and the archaeological sites date to the historic period. Undeveloped portions of the alternative have a low to high probability of containing archaeological resources.			isolate are precontact. The other two archaeological sites date to the historic period. Undeveloped portions of the	Four archaeological sites, one archaeological isolate (historic- period), and two cemeteries are within 100-foot buffer the of alternative. Three of the archaeological sites date to the historic period and one is precontact. All sites are historic- period. Undeveloped portions of the alternative have a low to high probability of containing archaeological resources.
SF.27: Potential effects to view sheds along the alignment and potential for impacts to view-dependent businesses	Assessment of impacts to protected views and view-dependent businesses	No effects to	o protected viewsheds or parcels with view-dependen	ıt businesses.	No effects to protected viewsheds or parcels with view-dependent businesses.	No effects to protected viewsheds or parcels with view-dependent businesses.
SF.28: Potential effects on sensitive noise and vibration receptors	Estimated number of potentially affected sensitive receptors within 350-foot buffer of each alternative; sensitive receptors include residences and "others" (schools, churches, parks, hotels, hospitals, libraries, cemeteries, etc.)	units), one hotel, one school, one church, one	An estimated 110-111 residential buildings (111-135 units), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 115-116 residential buildings (165-189 units), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 115 residential buildings (159 units) (including an apartment complex with multiple buildings), one hotel, one school, one church, one cemetery, and a rehab clinic within 350 feet.	An estimated 72 residential buildings (165 units) (including an apartment complex with multiple buildings), and a rehab clinic within 350 feet.
SF.29: Potential effects on existing and planned traffic (general purpose and freight traffic) on local network	Assessment of intersection level of service, and effects on traffic circulation and access for both automobiles and freight, including potential number of lane restrictions, turn restrictions, and driveways impacted (permanent conditions)	Some added delay (up to 10 second	Some added delay (up to 10 seconds) at intersections compared to without the project (S 352nd Street/Enchanted Parkway).			Some added delay (up to 10 seconds) at intersections compared to without the project (\$ 352nd Street/Enchanted Parkway).
SF.30: Potential effects on freight movement	Assessment of impacts to level of service on freight corridors (permanent conditions)	Some added delay at intersections compared to without project.			Some added delay at intersections compared to without project.	Some added delay at intersections compared to without project.
SF.31: Potential avoidance of hazardous waste	Estimated number of hazardous materials sites within 1/8 mile of each alternative: 5 - 0 to 5 hazardous materials sites 4 - 6 to 10 hazardous materials sites 3 - 11 to 15 hazardous materials sites 2 - 16 to 20 hazardous materials sites 1 - 21+ hazardous materials sites	20 hazardous materials sites.		17 hazardous materials sites.	17 hazardous materials sites.	12 hazardous materials sites.

			SF Pacific Highway (SF Enchanted Parkway - West Station)			
Measure	Methodology	<b>Option 1</b> (Guideway furthest east near Porter Way)	<b>Option 2</b> (Guideway shifts west of Option 1)	<b>Option 3</b> (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
SF.32: Potential effects on parking demand and supply	Assessment of impacts on parking supply (review of impacts to parcels with parking)	Parcels with parking that are potentially impacted: 24-25 parcels  Parcels with more than 50% of parking potentially impacted: 8 parcels	Parcels with parking that are potentially impacted: 28-29 parcels  Parcels with more than 50% of parking potentially impacted: 8 parcels	Parcels with parking that are potentially impacted: 32-33 parcels  Parcels with more than 50% of parking potentially impacted: 14 parcels  Parking acreage potentially impacted: 9.42-9.78 acres	Parcels with parking that are potentially impacted: 22 parcels  Parcels with more than 50% of parking potentially impacted: 10 parcels	Parcels with parking that are potentially impacted: 17 parcels
Objective: Support Equita	hle Mobility					
SF.33: Potential benefits to low- income or minority populations <sup>1</sup>	car, population younger than 18 and Federal Way is composed of 35.9% minority and 35.0% low-income populations. This station area has a 36.3% minority and 34.6% low-income population;					
SF.34: Potential for impacts on low-income and/or minority populations	Potential for displacement to affect Environmental Justice populations (minority and low-income)	Displacement would include known low-income residential buildings.  Displacement would include known low-income residential buildings.				Displacement would include known low-income residential buildings.
Objective: Provide a Finan	cially Sustainable and Constructi	ble Project				
SF.35: Preliminary conceptual estimate	Preliminary conceptual estimates based on conceptual design quantities and current Sound Transit unit pricing. Preliminary conceptual estimates are not the project's budget. They are to be used for comparisons among alternatives.	Adds approximately 500 linear feet of guideway costs west to Pacific Highway (SR 99) and back east to I-5. Description of the Highway, this alignment could see a half or full street is mitigation measures needed due to impacts along Pac	Depending on the alignment location along Pacific improvements, along with wetland and environmenta	The overall alignment length for this alternative is approximately the same as the preferred alignment along I-5 so additional guideway costs will be minimal with this alignment. Depending on the alignment location along Pacific Highway, this alignment could see a half or full street improvements, along with wetland and environmental mitigation measures needed due to impacts along Pacific Highway.	Adds the largest amount of new guideway structure, approximately 2,000 linear feet. Additional costs for minimizing wetland disturbance during construction will be required. The highest additional costs will be due to the additional guideway structure cost along with wetland/environmental mitigation costs.	Adds approximately 100 linear feet. The highest additional costs will be related to the two I-5 crossings with piers in the median, and the traffic control and safety measures (temporary falsework, etc.) in place to get this work completed.
SF.36: Operating estimate	Assessment of potential magnitude of O&M estimates based on travel time	Travel time would increase slightly due to an increased slightly slower curves getting to/from Pacific Highway, estimates.		Travel time would increase slightly due to slightly slower curves getting to Pacific Highway and near 70th Avenue E.	Travel time would increase slightly due to an increased guideway length added by this alternative. It is assumed that travel time would increase compared to SF Pacific Highway, but would not drastically increase operating estimates.	Travel time would increase slightly due to the lower speeds associated with the introduced curves to/from the east side of I-5. It is assumed that travel time would increase compared to SF Pacific Highway, but would not drastically increase operating estimates.
SF.37: Potential conflicts with major utilities and structures, such as existing or planned transportation infrastructure	Potential impacts on known major utilities or structures (e.g. power lines, transportation infrastructure)	On the southeast side of the S 356th Street/Pacific Hig that curves through the S 356th Street intersection will in addition, there are telecom/power poles along the undergrounded within the roadway corridor, but any roadway would also need to be reestablished with the	Il likely have an impact to these poles/lines and requir east side of Pacific Highway for the length of the corrior roadway improvement would trigger undergrounding	e adjustment to the poles and lines. dor. It is unknown whether utilities are also	No known major utilities or structures that would be impacted by this alignment north of S 364th Street. Impacts south of S 364th Street are the same as SF Pacific Highway.	This alignment is in the vicinity of a fuel pipeline that runs parallel to I-5 on the east side. According to GIS map, it appears that the alignment would have sufficient distance from the pipeline for the majority of the alignment, but the southern end may be close enough to be in conflict.  In addition, there are sign bridges crossing both NB and SB I-5 just south of the currently proposed alignment. These would need to be evaluated to determine whether proper sight distance is still provided. If not, the sign bridges would need to be relocated.

			Performance Rating Notes			
		SF Pacific Highway (SF Enchanted Parkway - West Station)				
Measure	Methodology	<b>Option 1</b> (Guideway furthest east near Porter Way)	Option 2 (Guideway shifts west of Option 1)	<b>Option 3</b> (Guideway west of Pacific Highway)	SF I-5 to Pacific Highway (SF I-5 Station)	SF Enchanted Parkway to I-5 East (SF Enchanted Parkway Station)
SF.38: Number of sites requiring environmental remediation within the project-footprint of ar alternative	Assessment of the number of sites requiring environmental remediation within the project footprint of an alternative	8 Sites potentially requiring remediation.	8 Sites potentially requiring remediation.	7 Sites potentially requiring remediation.	6 Sites potentially requiring remediation.	2 Sites requiring remediation.
SF.39: Unique construction challenges (potential for transportation, noise, vibration, and visual effects)	Assessment of temporary construction impacts to community, including potential for transportation, noise, vibration, and visual effects that could disrupt the community	Lesser amount of unique construction challenges other than constructing in and near wetland areas. The option would cross over the Hylebos Creek twice on the south end near Porter Way, requiring a structure system in place to construct without substantially impacting the ecosystem below. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	other than constructing in and near wetland areas. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	This alternative has potential of being closer to a residential community on the north side of SR 99 along the Fife Curve, which could result in additional noise, vibration, and visual effects on the homes. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	Construction would extend through the Hylebos Creek stream and wetland areas, requiring some unique construction methodologies to avoid harmful impacts to the ecosystem. It is possible that construction falsework/bridges will need to be developed to keep the construction equipment off the ground. Construction activities could require lane closures on Pacific Highway for safety and street improvements.	Construction would require a double crossing of I-5, over active vehicular traffic. Structures will need to be put in place to allow construction to safely continue over traffic. This could result in short-term closures of lanes and/or shoulders while the structures are being put in place.
SF.40: Availability and potential to use publicly-owned right-of- way and publicly-owned property	Amount of publicly-owned ROW and publicly-owned property (individual parcels in public ownership) available per conceptual design of alignment		Pacific Highway corridor is generally 100 ft in width, which is wide enough for the City's future roadway improvement plans. A guideway along the east or t side of the roadway would be placed within private property to allow room for road widening.			Along the west side of I-5, the guideway would be in WSDOT right-of way where possible. The I-5 crossings and supporting piers for these crossings would be within the I-5 right-of-way, with the piers in the median. Once the alignment crosses I-5, it would be within private property on the east side in order to provide sufficient width for WSDOT future compatibility.
SF.41: Capability to accommodate future expansion included in the Sound Transit Long Range Plan	Capability of station location and alignment to accommodate future expansion included in the ST Long Range Plan		Not applicable		Not applicable	Not applicable
SF.42: Assessment of operationa elements (e.g., reliability based on track alignment, tail tracks and pocket track at Tacoma Dome, number of at grade crossings, if any)	Consideration of operational elements (e.g., potential reliability, track alignment, special trackwork, number of at grade crossings, if any)		No known impacts to operational elements.		No known impacts to operational elements.	No known impacts to operational elements.
SF.43: Overall schedule risk	Consideration of potential risks to schedule (i.e. potential to increase schedule)	Possible slight increase to project schedule in order to construct the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination) and the additional 500 linear feet of guideway and added structures. Also potential increase to project schedule due to working within the Hylebos wetland area and lengthened construction to minimize impacts.	Possible slight increase to project schedule in order to construct the additional civil improvements (roadway reconstruction of Pacific Highway and local coordination) and the additional 500 linear feet of guideway and added structures.		reconstruction of Pacific Highway and local coordination).	Partially within a sensitive historically mapped property boundary. A major schedule risk is due to the potential discovery of unknown resources, although prior investigation would be done to minimize the risk for unanticipated findings. Coordination and scheduling with WSDOT to construct over I-5 could potentially increase the project schedule.

#### Notes:

- 1. Station locations are in the same or nearly the same locations as the Level 2 screening. For measures that assess station-related criteria: the SF Enchanted Parkway Station is equivalent to the SF 2 West Enchanted/S 352nd results; the SF I-5 Station is equivalent to the SF 9 I-5/Jet results presented in the Level 2 Alternatives Evaluation prepared by Sound Transit in 2019.
- 2. SF I-5 to Pacific Highway includes the same alignment as SF Pacific Highway Option 1 in the vicinity of Porter Way. SF I-5 to Pacific Highway could also be paired with the Option 2 and 3 alignments.

Lower Performing	
Higher Performing	

# **3 Screening Summary**

Between mid-2022 and early 2023, Sound Transit met with the Puyallup Tribe of Indians and local jurisdictions to review potential additional alternatives. Through a collaborative process supported by the screening analysis (summarized in Table 2-2) and letter received from the Puyallup Tribe of Indians (Attachment 1), the SF Pacific Highway corridor is suggested for further development and study in the Draft EIS. Table 3-1 summarizes the screening.

Table 3-1 Screening Summary

Additional Alternative	Screening Summary	
SF Pacific Highway (Option 1)	✓ Suggest developing conceptual design for further study.	
SF Pacific Highway (Option 2)	✓ Suggest developing conceptual design for further study.	
SF Pacific Highway (Option 3)	Suggest removing. Stakeholders indicated Option 3 would have greater impacts to properties, including some residences.	
SF I-5 to Pacific Highway	Suggest removing due to greater impacts to wetlands and streams, and construction challenges across natural area.	
SF Enchanted Parkway to I-5 East	Suggest removing due to areas sensitive for known cultural resources	

During screening activities in 2022, the Pacific Highway corridor was considered with the flexibility to develop a conceptual design on the west side, east side, or in the median.

# **4 Next Steps**

Following the project update, Sound Transit will summarize public feedback for the Sound Transit Board. The Sound Transit Board will then identify additional alternatives to study further in the Draft EIS.

In coordination with the Puyallup Tribe of Indians and local jurisdictions, potential alignments being considered along the Pacific Highway corridor include (1) an alignment primarily on the west side of the highway and (2) an alignment along the east side and in the median of the highway. The new alignments would curve back to the I-5 corridor near Porter Way. The potential station location in South Federal Way would remain in the vicinity of Enchanted Parkway S and S 352nd Street, locations being considered would shift slightly west of Enchanted Parkway S or south of S 352nd Street along the new alignment.



# Attachment 1

Correspondence



February 6, 2023

Dow Constantine Chair, Sound Transit Board 401 South Jackson Street Seattle, WA 98104

#### RE: Sound Transit Tacoma Dome Link Extension Alternatives Comments

Dear Chair Constantine,

On behalf of Tribal Council, I would like to thank you for Vice-Chair Roscoe and Sound Transit staff on updating us on the TDLE project during your visit this past August. As we shared during our meeting, the Tribal Council must approach any project impacting our properties and reservation with caution and deference to the lasting effects. As we also shared, there is an important issue that has become an increasingly sensitive subject resonating throughout Indian Country and brings about challenges to the proposed alternatives of this project. Based on our recent meeting we have focused on providing you additional feedback on the alignments as you develop the DEIS and study the alternatives.

It was helpful to re-familiarize ourselves on the TDLE project especially with our new leadership on Council. This is particularly critical as your efforts are approaching key points in the process, such as the Draft Environmental Impact Statement (DEIS). As we shared during our meeting and as Sound Transit Vice-Chairwoman Roscoe also acknowledged the Tribe's concerns in the September 6, 2022 letter, we continue to have concerns over the alignments Sound Transit is exploring.

Our lands have already been stolen and developed largely without our input. So while we appreciate your reaching out to discuss this with us, but keep in mind this TDLE infrastructure runs directly through and across the entirety of the Puyallup Tribe Reservation; it will forever impact the reservation lands and our people. We do not take this responsibility lightly and pride ourselves in being the stewards of these lands. We have great interest and even greater concern for projects of this magnitude and the changes, both positive and negative, that they bring. As promised, we are sharing some of the concerns below so there is a clear understanding of the Tribe's viewpoint, which will be useful as we discuss the project plans in the future.

#### **South Federal Way Alignment**

The Tribe understands the preferred alternative alignment will be studied in the EIS as along with a new additional South Federal Way alternative alignment option. The Tribe previously provided letters to Sound Transit in the initial scoping phase and again at the end of the scoping period as further analysis was done. During that time, the Tribe flagged the sensitivity of the South Federal Way area and the potential impacts to cultural resources, particularly around the historical St. George's Indian Boarding School property and associated cemetery. While we hoped these impacts could potentially be minimized or outright avoided for the TDLE project, after further study we believe that is no longer possible. The Tribe has evaluated and performed additional studies of this area in collaboration with Sound Transit staff. If the preferred

alternative alignment is chosen, the potential impacts to cultural resources are too high and unavoidable. Unfortunately, there is no amount of mitigation that would suffice should the project be constructed in this area; we can no longer support the preferred alternative alignment in this area. The Tribe prefers the South Federal Way Pacific Highway Alternative 2 option as it was presented during our August meeting. However, it should be noted that this alternative does impact trust lands in this area, and we would request future discussions regarding the options and impacts of each with you.

#### **Puyallup River Crossing**

During our meeting, you shared the two options you are exploring for crossing the Puyallup River including a "clear span" and "in river" pier option, both of which are being studied in the DEIS. As we shared, both options have equally high probability of impacting cultural resources. However, the Tribe strongly prefers a clear span option. The "in river" option would negatively impact our cultural and natural resources. The Tribe's traditional ceremonial grounds are located in this segment of the river and either crossing option would have lasting impacts to the adjacent lands. Of the two, the clear span option is preferred and will likely lessen potential impacts to the Puyallup River, fishing access, and water quality. Please be aware that the clear span option still has an incredibly high likelihood of encountering cultural resources and will require close coordination with THPOs. We do acknowledge the clear span presents challenges and that this alternative is still being studied. Constructing an "in river" pier option will require significant mitigation for the protracted impacts to our natural resources associated with the nature and duration of this type of work as well as for access and ensuring the safety of our Tribal Members exercising their right to fish and access the river. With that said, both options will require an easement for crossing the river, and we expect to work closely with Sound Transit to identify viable options and appropriate mitigation for all Tribal owned properties that are impacted by the project.

#### **Fife Station Location**

At the request of the Federal Transit Authority, we understand that you are adding another station location option in Fife to be studied in the DEIS. It is also our understanding that a station location closer to 54<sup>th</sup> Avenue East has been selected as an alternative. From the two options presented, a station on the West side of 54<sup>th</sup> and a station spanning 54<sup>th</sup>, the Tribe doesn't currently have a preference between the two. However due to the substantial amount of traffic in the area, and in particular on 54<sup>th</sup> Avenue East, a bicycle/pedestrian bridge should be included for either option as it would provide a safer access to the station. All of these things considered, the Tribe still favors the preferred alternative Fife station option far and above these additional station locations.

The Puyallup Tribe of Indians appreciates your planning efforts on the TDLE project and inclusion of the tribe during the process. As a parallel to the overall DEIS process, the Tribe would like to begin to discuss what mitigation would look like in relation to the project. Our lands are limited and we have fought for many decades to regain them back. We know all the alternatives being studied in the EIS will involve some level of impact to our lands and that the project, with its associated impacts, would persist on our Reservation for an indefinite amount of time. While some impacts are temporary, TDLE will forever change the landscape of the reservation. We would like to explore what opportunities Sound Transit could provide to mitigate these impacts in good faith.

Simply put, we need to understand the long-term impacts of the project and how Sound Transit plans to mitigate those impacts. We have experienced the impacts of similar projects and their legacies. The need for additional railroad lands for Northern Pacific spurred one of the largest land grabs of Tribal land. The need for the Interstate 5 project bifurcated our Reservation and desecrated graves and our sacred river. The need for shipping goods in and out of our waterways shrunk our homelands and water access yet again. These large infrastructure projects come at great cost to our community. Each of these "improvements" prevent us from ever utilizing or owning a fraction of our Reservation forever; effectively reducing our Reservation to a death by a thousand cuts. What will be needed 10, 100, 1,000 years from now? Reservation lands are so incredibly rare that we must look back on how the past has harmed our present and never repeat those mistakes again. It is our duty to our Tribal Members as their leaders to ask these questions today and for future generations who will live with the long-term effects and reflect upon them and judge our actions accordingly. The Tribe must have the self-determination to govern its lands now and in the future.

The Sound Transit system will be in place in perpetuity on our traditional lands and absent of much of our inclusion in future decision-making once Sound Transit secures what it needs from the Tribe. We are not part of the governing structure of the system and will not have a voice to articulate the ongoing impacts associated with growth and changes in the system. We must discuss what this means and what role the Tribe plays into this governance structure.

The tribe has been and will continue to provide guidance on design alternatives, such as the ones provided in this letter. Please note these comments are technical in nature and are not intended to grant any rights or serve as consent or waiver of the tribe with respect to this project. All project related impacts and concerns shall be addressed through a negotiated agreement between Sound Transit and the Puyallup Tribe of Indians.

We believe the next step is that we begin discussing the needs for necessary easements over Tribal lands and how you intend to resolve for the potential mitigation for these impacts through identifying surplus land opportunities, taxation solutions, and long-term partnership with the Tribe on the system. We look forward to identifying pathways forward that will be mutually beneficial to the project and to the Tribe.

Sincerely

Vice Chair Sylvia Miller, Puyallup Tribe of Indians