4.0 Affected Environment and Environmental Consequences

This chapter discusses the affected environment and environmental consequences for the topics listed in the text box on the right. Each section describes the resource study area, applicable laws and regulations with which the project would comply, and the long-term impacts of each alternative considered in this Draft EIS. Mitigation measures are proposed when potential impacts could not be avoided. The first part of each section summarizes the key findings for the affected resource. Impacts are described by alternative. Station or alignment options are described or quantified as an increase or decrease relative to the alternative(s) they are associated with. For discussion of potential impacts with the I-5 and SR 99 to I-5 alternatives, locations where impacts could be reduced by shifting the alignment closer to I-5, as described in Section 2.2.4, are noted.

Environmental Topics in Chapter 4

4.1 Acquisitions, Displacements, and Relocations
4.2 Land Use
4.3 Economics
4.4 Social Impacts, Community Facilities, and Neighborhoods
4.5 Visual and Aesthetics
4.6 Air Quality
4.7 Noise and Vibration
4.8 Water Resources
4.9 Ecosystems
4.10 Energy Impacts
4.11 Geology and Soils
4.12 Hazardous Materials
4.13 Electromagnetic Fields
4.14 Public Services, Safety, and Security
4.15 Utilities
4.16 Historic and Archaeological Resources
4.17 Parks and Recreational Resources

NEPA and SEPA regulations require that an EIS disclose direct, indirect, and cumulative impacts (also called "effects") of a proposed action on the environment. *Direct impacts* are caused by the action and occur at the same time and place (40 Code of Federal Regulations [CFR] 1508.8(a)). *Indirect impacts* are caused by the action and are later in time or farther removed in distance but still are reasonably foreseeable (40 CFR 1508.8(b)), such as changes in land use patterns and related effects on air quality. Impacts can be either temporary (short-term), such as construction impacts, or permanent (long-term), such as with property conversion to a transportation use, or impacts due to project operation. For this Draft EIS, the impacts analysis for each resource is divided into long-term impacts (in Chapter 3 for transportation and Chapter 4 for environmental resources) and short-term construction impacts (Chapter 5).

A *cumulative impact* results from the proposed action's incremental impact when added to those of other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7).

Cumulative impacts are considered because the public and government agencies need to evaluate a proposed action and its alternatives in a broad perspective, including how the project might interact with impacts that persist from past actions, with present-day activities, and with other projects that are planned but have not been built yet (reasonably foreseeable future actions). Cumulative impacts are discussed in Chapter 6.

This chapter also describes potential mitigation measures where potential impacts cannot be avoided. The Final EIS will specify mitigation measures with more detail, and any eventual FTA grant funding would be conditioned on Sound Transit's compliance with the identified mitigation measures.

4.1 Acquisitions, Displacements, and Relocations

4.1.1 Summary

All Federal Way Link Extension (FWLE) alternatives and options would require acquiring property as well as displacing and relocating some uses. Table 4.1-1 shows potential property acquisitions and displacements for each alternative along with a range of impacts with station and/or alignment options. The range presented includes the lowest and highest possible number of impacts associated with each alternative and may include one or more of the station or alignment options.

TABLE 4.1-1
Summary of Properties Affected and Displacements by Alternative

	Number of Potential Properties Affected (Range with Options)[a]	Number of Business Displacements (Range with Options)	Number of Residential Units Displaced (Range with Options)
SR 99 Alternative	**293** (240-315)	**104** (84-140)	**36** (36-108)
I-5 Alternative	**163** (155-172)	**29** (4-46)	**285** (186-305)
SR 99 to I-5 Alternative	**120** (117-128)	**43** (23-56)	**106** (106-152)
I-5 to SR 99 Alternative	**341** (298-341)	**98** (85-119)	**244** (244-251)

[a] Includes full and partial property acquisitions.

The I-5 Alternative would result in the greatest number of residential displacements, and the SR 99 Alternative would result in the largest number of business displacements. The I-5 to SR 99 Alternative would result in the greatest number of property acquisitions and total displacements (business and residential combined). The tables and maps in Appendix D4.1 identify each potentially affected parcel by alternative.

4.1.2 Introduction to Resources and Regulatory Requirements

Building and operating the FWLE would require acquiring public and private property for guideways, stations, parking, and other facilities, as well as displacing and relocating some residential, commercial, and public uses. This section summarizes likely property acquisitions and permanent easements based on current conceptual designs. These

impacts are representative and should not be considered the final determination regarding property acquisition.

There are two types of property acquisition discussed in this section:

- **Partial acquisition,** where Sound Transit would acquire part of a parcel and generally would not displace the existing use. In a few instances some of the businesses or residential units on a parcel would be displaced.
- **Full acquisition,** where Sound Transit would acquire the full parcel and displace the current use; full acquisitions include parcels that might not be fully needed for the FWLE but would be affected to the extent that existing uses would be substantially impaired (e.g., loss of parking or access).

Some acquisitions would be for staging areas and would only be needed during construction (discussed in Chapter 5). These areas are included in the acquisitions discussed in this section. Because civil construction could take up to 3 years, Sound Transit would permanently acquire such property and the displacements would be permanent. Following construction, many of these properties could be available for redevelopment and could attract new businesses and residents.

In addition to the potential property acquisitions described in this section, the FWLE could require temporary construction easements on private property as well as the use of public rights-of-way owned by WSDOT and the cities of SeaTac, Des Moines, Kent, and Federal Way. The area of temporary easements is not defined in this Draft EIS. Approval from WSDOT and the Federal Highway Administration would be required for use of I-5 right-of-way. Other impacts associated with acquisitions and displacements are discussed in Section 4.2, Land Use; Section 4.3, Economics; and Section 4.4, Social Impacts, Community Facilities, and Neighborhoods.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, is a federal requirement, and therefore project planning incorporates measures to comply with it. The act and its amendments direct how federal agencies, or agencies receiving federal financial assistance for a project, will compensate property owners or tenants who need to relocate if they are displaced by the project.

Sound Transit's *Real Estate Property Acquisition and Relocation Policy, Procedures, and Guidelines* (Sound Transit, 2013a) guides its compliance with federal law and state law (Chapter 8.26 Revised Code of Washington [RCW] and Chapter 468-100 Washington Administrative Code [WAC]) so that property owners are treated uniformly and equitably.

4.1.3 Affected Environment

The study area for the acquisitions, displacements, and relocations analysis generally follows the I-5 and SR 99 corridors through the cities of SeaTac, Des Moines, Kent, and Federal Way and includes the parcels that are within the areas where light rail alignments, stations, and facilities or associated road improvements would require permanent property acquisition for public right-of-way. Areas needed for staging around stations are also included.

4.1.4 Environmental Impacts

Sound Transit analyzed the potential right-of-way needs of the alternatives and parcel data from King County Department of Assessments to identify properties that would be affected by each alternative and the approximate area of each parcel that would be required. Appendix D4.1 provides further information on the potentially affected parcels.

Sound Transit evaluated the projected effects on each parcel to assess whether the parcel might need to be fully or partially acquired. Sound Transit verified the current land use, including the number of businesses or residences on affected parcels, using 2013 King County Assessor data and field verification (April 2013 and February 2014). The number of acquisitions and displacements for each alternative and its associated options is summarized in Table 4.1-1 and in Appendix D4.1.

The estimates below reflect the conditions at the time the analysis was conducted. Because properties that are currently underdeveloped or vacant could be developed between completion of this Draft EIS and the time of construction, the number and/or type of displacements could change. During final design, Sound Transit would prepare detailed assessments of acquisitions, uses, underlying ownership, and the parties involved in displacements for the alternative selected.

4.1.4.1 No Build Alternative

Under the No Build Alternative, no property acquisition would occur and no businesses or residences would be displaced.

4.1.4.2 Build Alternatives

The following subsections describe the direct and indirect impacts of the build alternatives. All permanent property acquisition is discussed in the Direct Impacts section; temporary property easements related to construction are discussed in Chapter 5.

Direct Impacts

Potential direct impacts associated with property acquisition are described below by alternative. Table 4.1-2 shows the number of properties that would be acquired by land use type and by partial or full acquisition.

It is important to note that many of the partial acquisitions are considered "sliver" acquisitions because they are small in size and would not affect the use of the property. Alternatives with large numbers of "sliver" acquisitions might appear to have a greater level of impact than would actually occur because most of these acquisitions would not affect the use of the property or result in any displacements. The total area that would be converted to public transportation use is discussed in Section 4.2, Land Use, and is summarized in Table 4.2-1.

This table also presents the number of businesses and residences that would be displaced for each alternative. The impacts for station and alignment options are provided as the increase or decrease in impacts relative to the associated alternative.

SR 99 Alternative

For the SR 99 Alternative, property acquisitions would occur on both sides of SR 99 and would generally occur where widening is needed at intersections and for stations and associated parking. The SR 99 Alternative would affect 293 parcels, resulting in displacement of 36 residences and 104 businesses. The residential displacements occur at two apartment complexes. A total of 104 businesses would be displaced from both single-use properties and business complexes.

"Public/institutional" properties affected include full acquisitions of the Highline College Outreach Center and the Redondo Heights Park-and-Ride (which would be replaced with a station).

TABLE 4.1-2
Number of Potential Parcels Affected and Displacements by Alternative

Alternative		Number of Parcels Affected	Single-Family		Multi-Family		Commercial and Industrial		Public and Institutional		Vacant		Total		Displacements	
			Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Business	Residential
SR 99 Alternative		**293**	**5**	**—**	**16**	**2**	**156**	**38**	**15**	**2**	**47**	**12**	**239**	**54**	**104**	**36**
S 216th Station Options	216th West Station	+6	—	—	-1	—	-2	+4	—	—	+4	+1	+1	+5	+13	—
	216th East Station	+5	-1	—	+4	+1	-1	+3	—	—	-1	—	+1	+4	+2	+26
Kent/Des Moines Station Options	Kent/Des Moines HC Campus Station	+19	—	+18	+4	—	-5	-3	+1	+1	+2	—	+2	+17	-7	+39
	Kent/Des Moines HC from S 216th W Station	+23	—	+18	+2	—	-15	+5	-5	+2	+13	+2	-5	+28	+9	+44
	Kent/Des Moines SR 99 Median Station	+1	—	—	+1	+1	+7	-7	-1	-1	+1	—	+8	-7	+2	+14
	Kent/Des Moines SR 99 East Station	-9	-1	—	+1	+2	-5	-5	—	-1	—	—	-5	-4	-1	+34
S 260th Station Options	S 260th West Station	-15	—	—	—	—	-25	+12	-2	+1	-5	+4	-32	+17	+18	—
	S 260th East Station	-6	—	—	—	—	-8	+9	-3	—	-6	+2	-17	+11	+21	+3
S 272nd Redondo Trench Station Option		-21	+2	+4	+2	—	-24	+6	-5	—	-10	+4	-35	+14	—	+4
Federal Way SR 99 Station Option		-8	—	—	—	—	-13	+4	-2	—	+3	—	-12	+4	-13	—

TABLE 4.1-2
Number of Potential Parcels Affected and Displacements by Alternative

Alternative		Number of Parcels Affected	Single-Family		Multi-Family		Commercial and Industrial		Public and Institutional		Vacant		Total		Displacements	
			Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Business	Residential
I-5 Alternative		**163**	**29**	**18**	**10**	**16**	**14**	**7**	**20**	**29**	**14**	**6**	**87**	**76**	**29**	**285**
Kent/Des Moines Station Options	Kent/Des Moines At-Grade Station	-5	+1	-1	-1	-3	+1	-5	+1	-3	-1	+6	+1	-6	-5	-99
	Kent/Des Moines SR 99 East Station	+7	-3	+1	-1	+1	+1	+13	—	-9	+2	+2	-1	+8	+17	-27
Landfill Median Alignment Option		—	-1	+1	—	—	—	—	—	—	—	—	-1	+1	—	+1
Federal Way City Center Station Options	Federal Way I-5 Station	+2	—	—	-1	—	-3	+5	-1	—	+1	+1	-4	+6	-5	—
	Federal Way S 320th Park-and-Ride Station	-3	—	-1	+1	—	-3	-2	—	+1	+1	—	-1	-2	-20	+19
SR 99 to I-5 Alternative		**120**	**18**	**6**	**6**	**3**	**35**	**16**	**10**	**10**	**14**	**2**	**83**	**37**	**43**	**106**
S 216th Station Options	216th West Station	+6	—	—	-1	—	-2	+4	—	—	+4	+1	+1	+5	+13	—
	216th East Station	+5	-1	—	+4	+1	-1	+3	—	—	-1	—	+1	+4	+2	+26
Landfill Median Alignment Option		—	-1	+1	—	—	—	—	—	—	—	—	-1	+1	—	+1
Federal Way City Center Station Options	Federal Way I-5 Station	+2	—	—	-1	—	-3	+5	-1	—	+1	+1	-4	+6	-5	—
	Federal Way S 320th Park-and-Ride Station	-3	—	-1	+1	—	-3	-2	—	+1	+1	—	-1	-2	-20	+19

TABLE 4.1-2
Number of Potential Parcels Affected and Displacements by Alternative

Alternative		Number of Parcels Affected	Single-Family		Multi-Family		Commercial and Industrial		Public and Institutional		Vacant		Total		Displacements	
			Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Partial	Full	Business	Residential
I-5 to SR 99 Alternative		**341**	**16**	**11**	**22**	**17**	**134**	**34**	**27**	**17**	**47**	**16**	**246**	**95**	**98**	**244**
S 260th Station Options	S 260th West Station	-14	—	—	—	—	-22	+7	-1	-1	—	+3	-23	+9	+11	—
	S 260th East Station	-6	—	—	—	—	-8	+9	-3	—	-6	+2	-17	+11	+21	+3
S 272nd Redondo Trench Station Option		-21	+2	+4	+2	—	-24	+6	-5	—	-10	+4	-35	+14	—	+4
Federal Way SR 99 Station Option		-8	—	—	—	—	-13	+4	-2	—	+3	—	-12	+4	-13	—

Road widening would require minor, partial acquisitions affecting three churches, a childcare center, the Woodmont Public Library, and Federal Way High School. Buildings on these properties would not be affected. Impacts on these resources are further discussed in Section 4.4, Social Impacts, Community Facilities, and Neighborhoods; and Section 4.14, Public Services.

S 216th West Station Option

The potential additional station at S 216th Street (West option) would result in 6 additional commercial properties impacted with 13 additional business displacements. The increase primarily results from additional properties needed to build the station. No additional residential displacements would occur with this station option.

S 216th East Station Option

The potential additional station at S 216th Street (East option) would result in 5 additional properties impacted and 26 additional residential displacements from a mobile home park. This shift would displace 3 businesses, but would also avoid 1 business displacement from the SR 99 Alternative.

Kent/Des Moines HC Campus Station Option

The Kent/Des Moines HC Campus Station Option would avoid several businesses along SR 99, impacting fewer commercial properties with 7 fewer business displacements. This option would affect 19 more properties than the SR 99 Alternative, resulting in 18 additional single-family residential displacements and 1 mobile home park.

If this station option were selected in combination with the S 216th West Station Option, it would result in 23 more properties affected than the SR 99 Alternative, with 9 more business displacements and 44 more residential displacements. This combination of options would result in the largest increase in affected properties.

Kent/Des Moines SR 99 Median Station Option

This option would result in 2 additional business displacements. The station location would acquire 1 additional multi-family property, resulting in 14 additional residential displacements.

Kent/Des Moines SR 99 East Station Option

The Kent/Des Moines SR 99 East Station Option would avoid several properties on the west side of SR 99 but would impact additional properties on the east side. It would affect 9 fewer properties than

the SR 99 Alternative and displace 1 less business because more of the acquisitions are partial. It would result in full property acquisitions of 2 mobile home parks, resulting in an overall increase of 34 additional residential displacements, more than any other option.

S 260th West Station Option

The potential additional station at S 260th Street (West option) would reduce the number of properties affected by 15, but would change several partial acquisitions to full acquisitions, resulting in 18 additional business displacements. No additional residential displacements would occur with this station option.

S 260th East Station Option

The potential additional station at S 260th Street (East option) would impact 6 fewer parcels overall, but would change several partial acquisitions to full acquisitions, resulting in 21 additional business displacements and 3 additional residential displacements. This option would result in the greatest increase in business displacements of any option.

S 272nd Redondo Trench Station Option

The S 272nd Redondo Trench Station Option would affect 21 fewer properties and have no additional business displacements. Four additional single-family properties would be acquired and displaced.

Federal Way SR 99 Station Option

The Federal Way SR 99 Station Option would impact 8 fewer properties. It would result in 13 fewer business displacements and no additional residential displacements.

I-5 Alternative

The I-5 Alternative would require property acquisition from 163 properties, resulting in displacement of 285 residences and 29 businesses. The majority of the residential displacements would occur at multi-family residences, with impacts affecting part of 3 large apartment or condominium complexes and 2 smaller apartment complexes north of Kent-Des Moines Road and 1 smaller apartment complex and 2 mobile home parks in the Kent/Des Moines station area. The I-5 Alternative would generally be located in WSDOT right-of-way south of Kent-Des Moines Road, reducing the overall number of properties affected

A total of 29 businesses would be displaced from both single-use properties and business complexes.

Forty-nine properties categorized as "public/institutional" would be impacted, but most of these properties were acquired by WSDOT for the SR 509 extension project or are owned by public utilities, and are primarily vacant. The exceptions to this are the Park of the Pines Church and Conference Center, and Mark Twain Elementary School (see Section 4.17 Parkland and Open Space, Chapter 5 Construction, and Appendix E Section 4(f) Evaluation for more information on impacts on this resource).

Kent/Des Moines At-Grade Station Option

The I-5 Kent/Des Moines At-Grade Station Option would affect five fewer properties than the I-5 Alternative. This station would be located on currently vacant land, resulting in 5 fewer business and 99 fewer residential displacements, mostly due to the avoidance of 3 multi-family properties.

Kent/Des Moines SR 99 East Station Option

The I-5 Kent/Des Moines SR 99 East Station Option would affect 7 additional properties compared to the I-5 Alternative, resulting in 17 additional business displacements. Although it would acquire the same number of multi-family residential properties, the properties acquired for this option have fewer units, and therefore, it would result in 27 fewer residential displacements than the I-5 Alternative. One of these properties would be a mobile home park. This option would result in the largest number of business displacements.

Landfill Median Alignment Option

The I-5 Landfill Median Alignment Option would acquire different parcels but would not result in any change in the number of parcels acquired or business displacements because the I-5 Alternative alignment in this area is already located mostly within WSDOT right-of-way. It would change one partial residential acquisition to a full acquisition to provide emergency access, resulting in one additional residential displacement.

Federal Way I-5 Station Option

The Federal Way I-5 Station Option would impact 2 additional properties compared to the I-5 Alternative; however, the properties affected by this option contain fewer business and therefore this

option would result in 5 fewer business displacements and no additional residential displacements.

Federal Way S 320th Park-and-Ride Station Option

The Federal Way S 320th Park-and-Ride Station Option would impact 3 fewer properties than the I-5 Alternative station. It would use an existing park-and-ride for the station and would reduce business displacements by 20. However, the tail track needed at the station would require a partial acquisition of a mobile home park, resulting in 19 additional residential displacements.

SR 99 to I-5 Alternative

The SR 99 to I-5 Alternative would affect the fewest parcels because it would be mostly along I-5 within WSDOT right-of-way.

The SR 99 to I-5 Alternative would require property acquisition from 120 properties, resulting in displacement of 106 residences and 43 businesses. Residential displacements would mostly occur at multi-family residences. A total of 43 businesses would be displaced from both single-use properties and business complexes.

The impacts resulting from the station and alignment options for the SR 99 to I-5 Alternative would be the same as discussed above under the SR 99 Alternative (S 216th station options) and the I-5 Alternative (Landfill Median Alignment Option and Federal Way city center station options).

I-5 to SR 99 Alternative

The I-5 to SR 99 Alternative would result in the greatest number of property acquisitions and total displacements (business and residential combined). The I-5 to SR 99 Alternative would require property acquisition from 341 properties, displacing 244 residences and 98 businesses. Of the 341 properties affected, 66 are residential: 27 are single-family and 39 are multi-family properties. A total of 98 businesses would be displaced from both single-use properties and business complexes.

The impacts resulting from the station and alignment options for the I-5 to SR 99 Alternative would be the same as discussed above under the SR 99 Alternative (S 260th East Station Option and S 272nd Redondo Trench Station Option) and the I-5 Alternative (Federal Way SR 99 Station Option). However, the impacts from the S 260th West Station Option would be slightly less than with the SR 99 Alternative because the I-5 to SR 99 Alternative does not enter the SR 99 corridor

until approximately S 246th Street. Several parcels are partial acquisitions instead of full. This option would have 11 more business displacements than the I-5 to SR 99 Alternative, but 7 fewer business displacements than the S 260th West Station Option when it is associated with the SR 99 Alternative.

Indirect Impacts

The project's property impacts resulting from acquisitions, displacements, and relocations would be direct. There could also be indirect impacts associated with the change in land use, as a property is converted to a transportation use. Some acquired property could also accommodate transit-oriented development (TOD), consistent with Sound Transit policy and local planning requirements. However, TOD and land use changes would not result in additional acquisitions. The potential impacts from land use change and TOD are discussed in Section 4.2, Land Use.

4.1.5 Relocation Opportunities

To measure opportunities for new locations for displaced businesses and residents, Sound Transit researched available residential and commercial real estate in the FWLE vicinity, generally defined as including SeaTac, Des Moines, Kent, and Federal Way. Some additional areas in south King County, such as Tukwila and Renton, were also included. Although property availability will change over time, there are numerous opportunities for residents and businesses to relocate within the FWLE vicinity, which would minimize difficulties in adjusting to relocation. Some affected properties with unique characteristics (such as a church or a property with school district uses) could prove more challenging to relocate.

The relocation of a business or residence is an inconvenience or hardship for those involved. Sound Transit would offer relocation assistance that includes compensation as well as supporting services that consider the unique needs of those being relocated, and this assistance can help reduce inconveniences or hardships. Sound Transit is also required to satisfy federal requirements for residential relocation, which define a "comparable replacement dwelling" as any dwelling that is: (A) decent, safe, and sanitary; (B) adequate in size to accommodate the occupants; (C) within the financial means of the displaced person; (D) functionally equivalent; (E) in an area not subject to unreasonable adverse environmental conditions; and (F) in a location generally not less desirable than the location of the

displaced person's dwelling with respect to public utilities, facilities, services, and the displaced person's place of employment (42 *United States Code* [USC] 61). To meet these requirements, Sound Transit may identify relocation properties that are in better condition and of higher value than the properties being acquired, in which case tenants may be eligible for a rent supplement as described in Section 4.1.6.

4.1.5.1 Office

A sufficient number of office buildings is available for sale each year to replace the projected displaced buildings. A substantial amount of space is also available for lease each year to meet the needs of displaced office tenants. In addition, vacant land and underutilized properties are available for the construction of new office buildings, which could provide additional capacity. Table 4.1-3 summarizes the vacancy rates of different types of commercial property in the FWLE vicinity.

TABLE 4.1-3
Commercial Property Vacancy in the FWLE Vicinity

Commercial Property Type	Vacancy Rate[a]
Office	11.9%
Retail	6.4%
Industrial	4.6%

Source: NAI Puget Sound Properties, 2014.

[a] Vacancy rates listed here are for the south end of Puget Sound, which includes the cities of Des Moines, Federal Way, SeaTac, and Kent. The south end also includes additional nearby cities such as Renton and Tukwila.

4.1.5.2 Retail

There is enough retail space for sale and for lease to meet the relocation needs of retailers displaced by the FWLE. Sound Transit would perform a case-by-case assessment to understand how the available inventory could meet the displaced retailer's specific needs. Although the information provided in Table 4.1-3 is based on the south Puget Sound area, visits to the FWLE area confirm that there is an adequate amount of vacant retail space. Additionally, a search for retail space for lease in the FWLE vicinity revealed approximately 1.5 million square feet of retail space available (CoStar, 2014).

4.1.5.3 Hotels

Displaced hotel property owners would have to locate a property that is for sale or locate a substitute site to construct a new hotel. The

study area has approximately 20 hotels, generally located along the SR 99 corridor. The SR 99, SR 99 to I-5, and I-5 to SR 99 alternatives would displace three hotels, while the I-5 Alternative would displace two hotels. Although hotel properties do come up for sale, location requirements and physical characteristics of the displaced property are usually unique and it can be difficult to find an available property that meets all of the desired features. New development sites exist and may provide the best opportunity for replacement.

4.1.5.4 Industrial

Adequate industrial space is available in the market to meet the needs of the few light-industrial building owners and tenants that could be displaced by the FWLE.

4.1.5.5 Owner-Occupied Residences

Relocation sites for owner-occupied residences (single-family and multi-family) are expected to be readily available in the same general area, but not necessarily in the same neighborhood. According to the Northwest Multiple Listing Service (MLS), over 1,000 residences (including approximately 200 condominiums and 40 mobile homes) were for sale in SeaTac, Des Moines, Kent, and Federal Way in November of 2014 (MLS, 2014).

The number of owner-occupied residences to be acquired in each area is relatively small in proportion to the entire housing stock. A sufficient supply of comparable relocation housing is expected to be available within the study area; however, depending on market conditions, reasonably priced, similar replacement property may be limited. Sound Transit would provide relocation assistance and compensation.

4.1.5.6 Renter-Occupied Residences

A sufficient supply of comparable relocation housing is expected to be available within the study area; however, depending on market conditions, reasonably priced, similar replacement property may be limited. Sound Transit would provide relocation assistance and compensation as described above. Table 4.1-4 summarizes the total number of housing units and estimates the available rental units in the FWLE vicinity.

TABLE 4.1-4
Estimated Available Rental Units in the FWLE Vicinity

Area	Vacancy Rate	Total Renter-Occupied Housing Units	Approximate Number of Available Units
Kent	6.8%	20,633	1,400
SeaTac	4.3%	4,709	200
Des Moines	5.0%	4,834	240
Federal Way	7.3%	14,912	1,090
Total units in FWLE vicinity		45,088	2,930

Source: American Community Survey, 2013.

4.1.6 Sound Transit Acquisition and Relocation Policy Summary

Sound Transit has notified property owners whose property may be directly affected by any of the alternatives, but acquisition of property would begin only after the environmental process is complete and the Sound Transit Board selects the project to be built. The tables and maps in Appendix D4.1 identify each potentially affected parcel. As described in Section 2.8, Next Steps and Schedule, there are a number of steps that Sound Transit will go through before property acquisition will begin as part of final design. Sound Transit will continue to communicate with property owners during the Final EIS, the Sound Transit board decision process on the project to be built, and final design. As described in Section 2.6, Interim Terminus Stations, the project may be constructed in phases and therefore acquisition of properties south of the Kent/Des Moines Station could be delayed from the schedule shown in Exhibit 2-28.

Sound Transit relocation staff are available to answer questions and provide additional information about relocation assistance services, payments, reimbursement eligibility, and the timing of the process. Qualified relocation agents from Sound Transit would determine the relocation needs and preferences of each household, business, and organization to be displaced. They would work closely and proactively with residents and businesses to help them plan ahead for relocation, and would assist in finding new homes or sites, and help to solve problems that might occur. While the ultimate choice of relocation site would be up to the affected resident or business, the agency would help investigate possible locations, including nearby properties. Sound Transit uses interpreters to help those with limited English proficiency understand their choices and options.

Owners would not have to relocate until they have been paid the agreed purchase price or until an amount equal to Sound Transit's estimate of just compensation has been deposited with the court. Residents, businesses, and tenants would not have to relocate without receiving at least 90 days written notice. Given the uncertainty about which alternative will be selected to be built, it is generally recommended that property owners proceed with planned improvements to their properties or facilities as they deem necessary at this time. Property owners would be offered just compensation for their land and improvements as described below.

A public agency must pay "just compensation" to property owners for land and improvements acquired for public purposes. "Just compensation" must not be less than the fair market value of the property acquired. It includes any measurable loss in value to the remaining property as a result of a partial acquisition. For instance, Sound Transit would mitigate for the permanent loss of parking spaces resulting from partial property acquisition by compensating the property owner or by providing replacement parking.

Sound Transit would pay for normal expenses of sale, including escrow fees, title insurance, prepayment penalties, mortgage release fees, recording fees, and typical costs incurred as part of conveying title.

Relocation benefits are dependent on individual circumstances. Examples of factors that can affect relocation benefits include the condition of the replacement property, time of occupancy at the displaced property, and age or condition of a mobile home.

Depending on individual circumstances, Sound Transit might pay for residential moving expenses and replacement housing payments, nonresidential moving expenses, business reestablishment expenses, and other eligible expenses. Sound Transit's residential and non-residential acquisition and relocation handbooks (Sound Transit, 2013b and c) detail the compensation and acquisition procedures. These are available at http://www.soundtransit.org/Documents/pdf/projects/Prop%20Acq%20and%20Res%20Relo%20Hndbk%2012-2013.pdf and http://www.soundtransit.org/Documents/pdf/projects/Prop%20Acq%20and%20Non-Res%20Relo%20Hndbk%2012-2013.pdf, respectively.

Tenants may be eligible for rent supplements if comparable decent, safe, and sanitary replacement housing is more than their current rental cost. In these cases, Sound Transit would pay the difference, or a portion of the difference, between the tenant's current and new rental rates for a 3.5-year period (42 months).

Sound Transit follows Title 49 Part 24, Subpart F for relocation of mobile home owners and tenants. Assistance would vary depending on individual circumstances. Mobile home residents are eligible for the same acquisition and relocation benefits that apply for other residential properties. Some residents own their mobile home, but rent or lease space in a mobile home park. In these cases, the residents would receive rental relocation assistance and their mobile home would be relocated. If the mobile home could not be relocated because of its age or condition, the owner would receive rental relocation assistance, but would also be compensated for their mobile home. They could then choose to use this payment for purchase of another mobile home or other real estate (for example, a down payment for a single-family home or condominium). Other mobile home residents rent both the space in a mobile home park and the mobile home unit. These residents would be eligible for rental relocation assistance, similar to someone renting an apartment or house. Still others may own land with a mobile home. They would receive payment for the land in addition to payment for the mobile home, the same as other residential land acquisition.

If Sound Transit recognizes special circumstances, proactive help to solve problems would be available.

4.1.7 Potential Mitigation Measures

As part of the FWLE and as noted above, Sound Transit would compensate affected property owners according to the provisions specified in Sound Transit's adopted Real Estate Property Acquisition and Relocation Policy, Procedures, and Guidelines (Resolution #R98-20-1; Sound Transit, 1998). Sound Transit would comply with provisions of the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR, Part 24), as amended, and the State of Washington's relocation and property acquisition regulations (WAC 468-100 and RCW 8.26). Benefits would vary depending on the level of impact, available relocation options, and other factors. Because of these compliance actions, no additional mitigation would be necessary.

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4.2 Land Use

4.2.1 Summary

High-capacity transit (HCT) has been studied and planned for by regional and local agencies in the Federal Way Link Extension (FWLE) corridor for over 30 years. Local jurisdictions have planned for the project in their comprehensive plans and have adopted zoning that provides for potential future land uses that are generally consistent with light rail and associated stations. Direct land-use impacts would occur from conversion of public and private property to transportation uses and are described in further detail in Section 4.2.4.2. Table 4.2-1 shows predominant land uses that would be converted to transportation use for each FWLE build alternative and the total acres of land that would be converted. The alternatives would convert approximately 41 to 80 acres of land to transportation uses, with the SR 99 to I-5 Alternative converting the least and the SR 99 Alternative with the additional stations options converting the most. All build alternatives would generally run adjacent to or within existing transportation rights-of-way and therefore are consistent with existing adjacent land uses. Much of the land along the SR 99 corridor is currently considered underutilized (built at uses less dense than allowed under current zoning), and the addition of the FWLE in this area would support redevelopment in this corridor in accordance with current zoning.

Redevelopment of land around stations could occur as an indirect effect of the FWLE. Often referred to as transit-oriented development (TOD), these potential changes in land use and the timing for such redevelopment depends on land availability, zoning regulations, market conditions, and several other factors. TOD could occur on surplus property originally acquired for construction of the project but no longer needed (e.g., staging areas acquired outside of highway right-of-way). TOD could also occur in a larger area surrounding or in proximity to light rail stations. A separate study of TOD potential at station locations has been completed for the FWLE (Sound Transit, 2015) and is available at http://www.soundtransit.org/Projects-and-Plans/Federal-Way-Link-Extension/Federal-Way-document-archive. Results of this assessment are summarized in this section.

TABLE 4.2-1
Predominant Existing Land Uses Converted to Transportation Use

Alternative	Predominant Land Uses	Acres Converted to Transportation Use (Range with Options)
SR 99 Alternative	Commercial, Institutional, Vacant	**50.9** (48.9-80.4)
I-5 Alternative	Vacant, Commercial, Multi-Family	**47.7** (46.6-54.5)
SR 99 to I-5 Alternative	Commercial, Vacant, Multi-Family	**41.7** (41.3-56.3)
I-5 to SR 99 Alternative	Commercial, Institutional, Vacant	**54.7** (54.7-71.1)

Appendix D4.2 summarizes relevant land use plans, goals, and policies.

4.2.2 Introduction to Resources and Regulatory Requirements

This section provides information on the existing land uses and current zoning (future allowable land uses), describes changes in land use that would occur as a result of the FWLE, and evaluates the consistency of the project with local and regional planning policies.

Local jurisdictions address HCT in comprehensive plans and other planning documents, and in some locations the potential for HCT is reflected in future land-use designations. Specifically, Des Moines' *Comprehensive Transportation Plan* (City of Des Moines, 2012a), Kent's *Midway Subarea Plan* (City of Kent, 2011a), and the *Federal Way Comprehensive Plan* (City of Federal Way, 2012) anticipate development of HCT in the project corridor. In addition, regional plans such as Puget Sound Regional Council's (PSRC) *Vision 2040* (PSRC, 2009) and *King County Metro Transit Strategic Plan for Public Transportation 2011 to 2021* (King County Metro, 2011) have identified future HCT in the FWLE corridor. Sound Transit's Regional Transit Long Range Plan (Sound Transit, 2005) identifies HCT between S 200th Street in SeaTac and the Federal Way city center, and the Sound Transit 2 Plan (ST2; Sound Transit, 2008) included the extension from the S 200th Street light rail station to S 272nd Street in the city of Federal Way. These local and regional plans identify the need to connect the urban centers with HCT to allow for more efficient use of land and as a sustainable alternative to increasing traffic congestion problems.

TOD is a pattern of dense, mixed-use, pedestrian-friendly land uses located near transit nodes such as light rail stations. TOD could occur in station locations where jurisdictions have provided for greater density and mixture of uses in their comprehensive plans and zoning regulations.

The FWLE's land-use compatibility and conformance with existing land-use policies and plans was evaluated based on review of the plans listed in Table 4.2-2. Appendix D4.2, Land Use, evaluates the FWLE for consistency with those plans and policies.

TABLE 4.2-2
Adopted Plans and Policies

Washington State
Growth Management Act (GMA; Revised Code of Washington [RCW] 36.70A.200, adopted 1990, as amended)
Puget Sound Regional Council
VISION 2040 (2009)
Transportation 2040: Toward a Sustainable Transportation System (2014)
Sound Transit
Regional Transit Long-Range Plan (20014)
Sound Transit 2: A Mass Transit Guide; The Regional Transit System Plan for Central Puget Sound (ST2) (2008)
King County
King County Metro Transit Strategic Plan for Public Transportation 2001-2021 (2011)
King County Comprehensive Plan (adopted 2012)
City of SeaTac
City of SeaTac Comprehensive Plan (adopted December 1994, updated 2012)
City of Des Moines
City of Des Moines Comprehensive Plan (adopted 2009, amended 2012)
City of Kent
City of Kent Comprehensive Plan (adopted 2004, amended 2011)
Midway Subarea Plan (adopted December 2011)
City of Federal Way
City of Federal Way Comprehensive Plan (adopted 1995, revised 2013)

4.2.3 Affected Environment

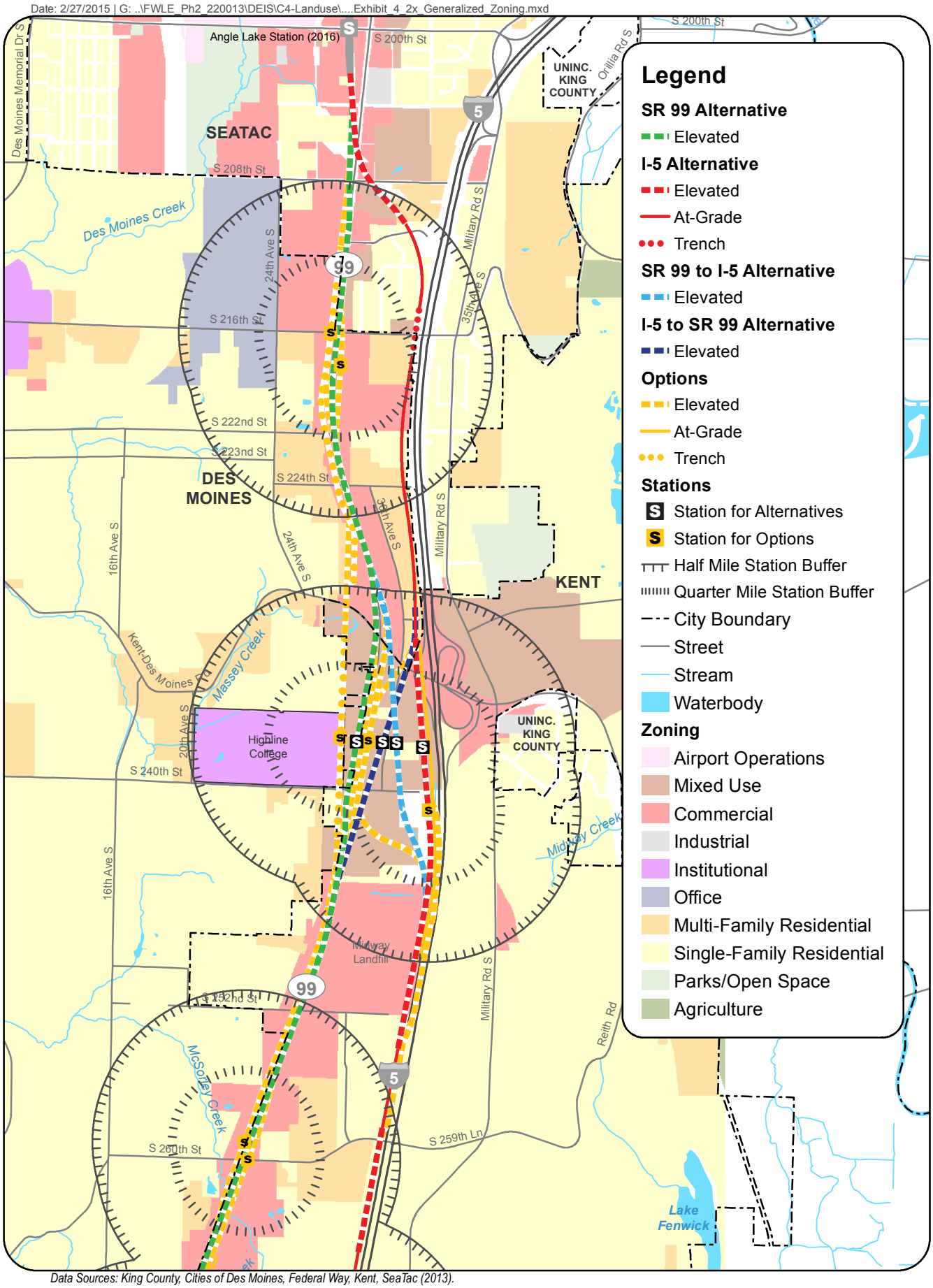
The land-use study area for FWLE consists of the areas immediately adjacent to the project alignments and the land uses within a 0.5-mile radius around the potential stations. Land uses in the areas within 0.5 mile of the potential stations have the greatest probability of being affected, both directly and indirectly. The FWLE would be

located within the urban growth boundary of southwest King County, and the FWLE alternatives would travel through and within the urbanized cities of SeaTac, Des Moines, Kent, and Federal Way. The SR 99 and I-5 corridors generally travel parallel to each other in the FWLE study area and are less than one mile apart. Since these corridors are close to each other the potentially affected area east of SR 99 and west of I-5 overlap. Likewise, the 0.5-mile study area around some of the station areas overlap.

The following subsections describe existing and potential future land uses in each city and summarize overarching land-use policies in the SR 99 and I-5 corridors as they relate to the FWLE. All land uses have been generalized into dominant land-use categories (single-family residential, multi-family residential, commercial, institutional, mixed-use, parks/open space, industrial, office, and vacant) so that the land use could be presented consistently across jurisdictions, to the extent possible. Potential future land uses were defined by generalizing each city's zoning and reviewing city ordinances. Generalized zoning is shown in Exhibits 4.2-1 and 4.2-2 for areas within 0.25 mile and 0.5 mile of stations, and is consistent with applicable comprehensive plans. Exhibit 4.2-3 compares the existing land uses with the future allowable land uses (generalized zoning) at each potential station area (including all station options) and indicates where zoning represents a potential future land-use change. The percentages of land use shown in Exhibit 4.2-3 are estimates of the amount of land within 0.5 mile and 0.25 mile of stations. Section 4.3, Economics, includes information on projected households and employment within 0.5 mile of the stations.

4.2.3.1 FWLE Corridor

The SR 99 corridor has similar land uses from north to south and land use does not vary greatly by city boundaries. Land uses immediately adjacent to SR 99 are predominantly commercial uses, including hotel/motels, automotive services, small-scale strip malls, office uses, retail commercial, larger big-box retail commercial, medical facilities, and restaurants. Land uses transition to single-family and multi-family residential west and east of the commercial corridor. Some public and quasi-public uses (e.g., churches and a park) are located between I-5 and SR 99. In addition, there is one large institutional use (Highline College) west of SR 99, and there are some industrial land uses adjacent to the corridor and pockets of vacant land.



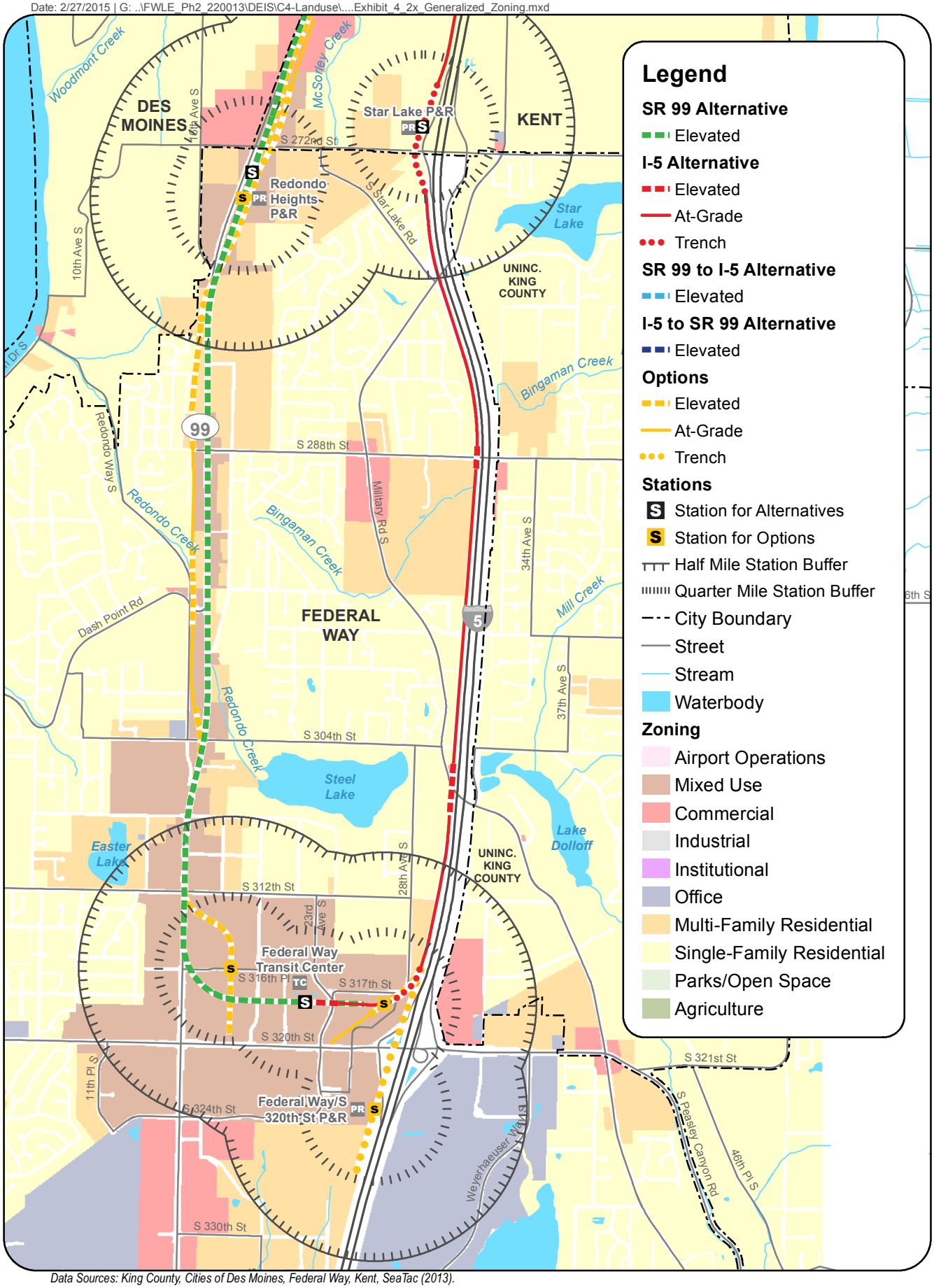
Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2013).

N

0 0.25 0.5 1 Miles

EXHIBIT 4.2-1
Generalized Zoning (North)
Federal Way Link Extension

Date: 2/27/2015 | G: ..\FWLE_Ph2_220013\DEIS\C4-Landuse\....Exhibit_4_2x_Generalized_Zoning.mxd



Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2013).

N

0 0.25 0.5 1 Miles

EXHIBIT 4.2-2
Generalized Zoning (South)
Federal Way Link Extension

	Land Use Within 1/4 Mile	Land Use Within 1/2 Mile
S 216th Street Stations		
Existing Land Use	20% 30% 30% <10% 10% 10%	30% 20% 20% 10% 20%
Allowable Future Land Use	20% 20% 10% 50%	30-40% 10-20% 10% 30% 10-20%
Kent/Des Moines Stations		
Existing Land Use	20% 10% 40% 20% 10%	20% 10% 30% 20% 20%
Allowable Future Land Use	20% 50% 10% 20%	20% 10% 30% 20% 20%
S 260th Street Stations		
Existing Land Use	10% 20% 30% 10% 30%	40% 10% 20% 30%
Allowable Future Land Use	30% 20% 50%	60% 10% 30%
S 272nd Street Stations		
Existing Land Use	0-20% 20-40% 10-40% 10% 10-40%	30% 20% 10% 10% 30%
Allowable Future Land Use	10-70% 30-40% 0-40% 0-10%	50-70% 10-30% 10% 10%
Federal Way Transit Center Stations		
Existing Land Use	0-10% 10% 40-80% 0-10% 0-10% 0-10% 10%	10% 10-20% 40-50% 10% 10% 10%
Allowable Future Land Use	0-10% 0-10% 50-100% 0-10% 0-20%	10-20% 10-20% 30-60% 10% 10-30%

Legend: Single-Family; Multi-Family; Mixed Use; Commercial; Office; Parks; Institutional; Industrial; Vacant/Other

EXHIBIT 4.2-3
Existing Land Uses and Allowable Future Land Uses around Station Areas

Note: Station information is generalized for multiple station options in the same area and represents all alternatives.

The I-5 corridor is mostly surrounded by residential land uses. South of S 272nd Street, the eastern portion of the I-5 corridor is in unincorporated King County. This area is primarily suburban single-family residential uses and much of the area is zoned for single-family residential with some small pockets of commercial and multi-family residential (see Exhibit 4.2-3). As noted in Section 4.2.3.1, the west side of the I-5 corridor overlaps with much of the east side of the SR 99 corridor. Adjacent to the west side of I-5, single-family and multi-family residential uses are predominant, with commercial land uses further west near SR 99.

4.2.3.2 Land Use by City

City of SeaTac

The Seattle-Tacoma International Airport (Sea-Tac) is the Northwest region's largest international airport. Although the airport is outside of the study area, it has played an important role in land-use development along the SR 99 corridor in SeaTac, which includes a number of commercial uses that cater to the airport such as motels/hotels, restaurants, and gas stations. The area between SR 99 and I-5 is dominated by commercial uses in the north and several former residential and commercial properties acquired by Washington State Department of Transportation (WSDOT) for the SR 509 extension project that are now vacant. South of this area is predominantly single-family residential land uses.

The *City of SeaTac Comprehensive Plan* (City of SeaTac, 2012) identifies a planned future light rail extension south of the Angle Lake Station. Although no stations for the FWLE are proposed in SeaTac, the potential additional station at S 216th Street would be near the boundary between Des Moines and SeaTac, and development of this station could affect land use in SeaTac. This area is planned for mixed use in the future along SR 99, but otherwise would remain commercial and single-family residential, as shown in Exhibit 4.2-1.

City of Des Moines

The area the west of SR 99 in Des Moines is single-family and multi-family residential with some commercial development, and also includes Highline College. The area between SR 99 and I-5 is known as Pacific Ridge. This area is currently single- and multi-family residential and commercial; however, the Pacific Ridge Element of the *City of Des Moines Comprehensive Plan* (City of Des Moines, 2012b) calls for higher-density development to utilize regional transportation links. The comprehensive plan calls for increased building heights in Pacific

Ridge to enhance land value, promote redevelopment and job growth, expand view opportunities, and accommodate household growth targets.

As shown in Exhibit 4.2-1, potential future land uses adjacent to SR 99 include commercial and mixed use with single- and multi-family residential uses farther east and west. This is generally consistent with existing land uses, although zoning allows for higher-density development than currently exists.

The Kent/Des Moines SR 99 West Station would be located in Des Moines, as would the HC Campus Station Option. The remaining Kent/Des Moines station options would be located in the city of Kent, but much of the area within 0.5 mile of these stations would be in the city of Des Moines.

City of Kent

Most of the study area within the city of Kent is within the Midway Subarea, located between SR 99 and I-5 south of Kent-Des Moines Road. The Midway Subarea land use is currently low-density commercial and residential. Commercial uses in the city of Kent include larger retail stores than those generally found elsewhere in the corridor, such as Lowe's and Fred Meyer. The study area includes the decommissioned 60-acre Midway Landfill. Most of the area between S 260th Street and S 272nd Street is McSorley Creek Wetlands, much of which has been acquired by the city for preservation.

The *Midway Subarea Plan* adopted in December 2011 by the City of Kent updated and created new policies, land-use designations, and zoning in anticipation of light rail in this area. The Subarea Plan encourages transition from the existing land uses to denser mixed-use development. Within the project corridor, land uses in this subarea are planned to result in the greatest amount of change in density and mixed uses over time from the existing pattern of uses. As shown in Exhibits 4.2-1 and 4.2-2, potential future land uses in the Midway Subarea and within 0.5 mile of the Kent/Des Moines Station include mixed-use, multi-family residential, and commercial.

Star Lake Park-and-Ride is located west of I-5, just north of S 272nd Street. The S 272nd Star Lake Station at the Star Lake Park-and-Ride is surrounded by single-family residential and multi-family residential land uses. Potential future land uses within 0.5 mile of the station

include some mixed-use along SR 99, but otherwise would generally not change.

Beyond the station areas, potential future land uses include single-family land use on the east side of I-5 and a mix of commercial, single-family, and mixed-use on the west side of I-5. With the exception of the mixed-use area, future land-use designations are generally consistent with existing land uses.

City of Federal Way

The FWLE would enter the city of Federal Way at S 272nd Street. Redondo Heights Park-and-Ride is located on the east side of SR 99 in Federal Way. Existing land uses south of S 272nd are predominantly single-family residential, but also have commercial and multi-family uses along the SR 99 corridor. The Federal Way Transit Center is located between SR 99 and I-5 in the Federal Way City Center, an area dominated by larger commercial retail uses including the "Commons" mall and big box retail, some of which are vacant. The area also includes the Federal Way S 320th Street Park-and-Ride.

The City Center element of the *City of Federal Way Comprehensive Plan* (City of Federal Way, 2013) was planned to support regional HCT and to reduce dependency on automobiles. This plan envisions a HCT stop in the City Center surrounded by mixed-use.

As shown in Exhibit 4.2-2, potential future land uses along SR 99 include mixed use and multi-family residential uses, which is a change over existing conditions. Potential future land uses along I-5 are generally single-family residential with some multi-family residential land uses. Potential future land uses within 0.5 mile of the S 272nd Street Station at the Redondo Heights Park-and-Ride include multi-family residential and mixed-use along SR 99. Further from SR 99, there are potential future single-family residential land uses around the station. Within the Federal Way City Center, which is located between S 312th and S 324th streets and includes much of the area within 0.5 mile of the Federal Way stations, the potential future land use is mixed-use. Further away from this station, potential future land uses include commercial, single-family residential, multi-family residential, and parks/open space.

4.2.4 Environmental Impacts

This section discusses the consistency of the alternatives with regional, state, and local land-use policies and the direct and indirect impacts on existing and allowable future land uses.

4.2.4.1 No Build Alternative

The No Build Alternative includes the existing transportation system and future population and employment growth assumed in adopted plans, but without the Federal Way Link Extension. It would not displace any residents or businesses. However, this alternative is inconsistent with many of the regional land-use and transportation policies because it would not develop a HCT system connecting the region's highest-growth centers, nor is it consistent with the local plans that encourage increased density and/or TOD land-use patterns in anticipation of HCT service. The PSRC policies related to focused and compact growth, frequent transit service, connecting urban centers, and transportation alternatives to the single-occupant vehicle would be either not fully implemented or only partially implemented. Therefore, the No Build Alternative would constrain transportation options, leading to more traffic congestion where higher density land uses are planned and could slow the rate of denser development in growth centers.

4.2.4.2 Build Alternatives

The following subsections describe the direct and indirect impacts of the build alternatives. Construction impacts related to land use are discussed in Chapter 5, Construction Impacts.

Direct Impacts

Impacts Common to All Alternatives

Consistency with Land-use Plans and Policies

Regional, state, and local land-use plans in the study area share the goal of improving transit accessibility and encouraging transit use by concentrating mixed land uses within the project corridor in the areas that the jurisdictions have identified. The project would connect employment centers and provide for uninterrupted access among the four cities in the corridor.

Sound Transit reviewed regional, state, and local master plans to identify goals and/or policies applicable to the FWLE to determine whether the project is consistent with the applicable plans. Appendix D4.2 describes the consistency of the build alternatives with applicable plans and policies. The alignment and station alternatives are all generally consistent with regional plans and policies in the study area. The FWLE would comply with goals and polices identified in PSRC's *VISION 2040* by providing a regional transit system serving a growing transportation need for planned density of residential and

employment uses within designated urban areas. In addition, PSRC developed a corridor action strategy, *Growing Transit Communities Strategy* (PSRC, 2013), for several of the region's major transit corridors. The FWLE is in PSRC's South Corridor area and would contribute to meeting the objectives of its action strategy.

Local planning documents focus on the types of land uses permitted within zones and the scale of development that is allowed within these zones. The FWLE would increase transit level of service and linkages with other jurisdictions and regional destinations. Development around stations in lower-density residential areas is not expected to encourage incompatible commercial or office uses because the applicable plans and codes preclude such uses. In those areas where the local jurisdictions have adopted land-use plans, policies, and development regulations to facilitate higher density (including mid- and high-density mixed use of multi-family residential, commercial, and office development), the FWLE would be consistent with the goals and policies.

The jurisdictions have been planning for HCT in the study area as evidenced in their planning documents, including the Pacific Ridge Element of the *City of Des Moines Comprehensive Plan* (City of Des Moines, 2012b), Kent's *Midway Subarea Plan* (City of Kent, 2011a), and the City Center Chapter of the *City of Federal Way Comprehensive Plan* (City of Federal Way, 2013). As shown in Exhibits 4.2-1 and 4.2-2, most of the stations are surrounded by areas of planned commercial and mixed-use development. The comprehensive plans of all four cities in the study area support HCT in the corridor (see Appendix D4.2, Land Use, for a discussion of specific policies in each city related to land use, transportation, and economic development).

The Washington State Growth Management Act (GMA) requires that zoning be consistent with comprehensive plans and prohibits local governments from precluding the siting of essential public facilities through their comprehensive plans or zoning. The FWLE is a "regional transit authority facility" and is, therefore, explicitly recognized as an essential public facility in the GMA (RCW 36.70A.200). When Sound Transit's alignment decision has been finalized, affected jurisdictions have a "duty to accommodate" the FWLE in their land-use plans and development regulations.

Conversion of Land Uses to Transportation Uses

Direct land-use impacts would occur in locations where the FWLE would require private or public property acquisitions. Most of the property acquired would be permanently converted to a transportation-related use. The property acreage shown in Section 4.1, Acquisitions, Displacements, and Relocations, is greater because not all of the property acquired would be permanently converted to transportation uses. This would occur for staging areas and some properties where the light rail alignment bisects a large property that could later be redeveloped consistent with city zoning. Property that is already public right-of-way for transportation uses, such as the SR 99 median and I-5 right-of-way, are not included in this analysis because they are already dedicated to transportation uses.

The FWLE alternatives being considered generally follow existing transportation corridors, minimizing the amount of additional required right-of-way.

Table 4.2-3 shows the maximum amount of land that would be converted to a transportation-related use for the alternatives. The range of land converted with the options is shown in parentheses. The totals represent the amount of property that would be permanently required outside of existing public rights-of-way (including I-5, SR-99, and other roadways). Acres of land that would be converted to a transportation-related use for each station option are shown in Table D4.2-1 in Appendix D4.2.

The land to be acquired for the FWLE would constitute only a small portion, less than 0.2 percent, of the total amount of land in the four cities in the study area, and would not result in material changes in the regional or local land use or development patterns. However, there would be indirect TOD opportunities near the stations as described in “Indirect Impacts” below.

Impacts by Alternative

Direct impacts for each alternative and station option in terms of land acquisitions are shown in Table 4.2-3. The following discussion focuses on the differences in direct impacts from land conversion for each alternative, station, and station option.

TABLE 4.2-3

Potential Conversion of Existing Land Use to Transportation-Related Land Use (acres)

Alternative	Acres by Zoning Category (Range with Options)							Total Acreage Affected[a]
	Single-Family	Multi-Family	Commercial (includes Office)	Industrial	Institutional	Parks/ Open Space	Vacant	
SR 99 Alternative	**0.2** (0.2 to 2.6)	**2.0** (2.0 to 10.8)	**30.8** (27.5 to 46.0)	**0** (0 to 0.1)	**10.5** (10.2 to 14.2)	**0** (0)	**7.4** (7.1 to 14.7)	**50.9** (48.9 to 80.4)
I-5 Alternative	**6.7** (2.1 to 6.8)	**8.0** (2.8 to 9.1)	**12.7** (2.1 to 25.4)	**0** (0)	**5.5** (1.7 to 5.6)	**0** (0)	**14.8** (14.2 to 28.1)	**47.7** (46.6 to 54.5)
SR 99 to I-5 Alternative	**5.6** (5.5 to 5.7)	**6.0** (6.0 to 12.9)	**17.2** (7.9 to 30.1)	**0** (0)	**0.8** (0.8 to 1.1)	**0** (0)	**12.1** (11.5 to 25.1)	**41.7** (41.3 to 56.3)
I-5 to SR 99 Alternative	**1.3** (1.3 to 2.2)	**6.5** (6.5 to 6.7)	**26.2** (27.3 to 33.8)	**0** (0 to 0.1)	**11.5** (11.2 to 11.5)	**0** (0)	**9.2** (10.4 to 17.3)	**54.7** (54.7 to 71.7)

Note: Existing land-use types were developed using King County Assessor data. Acreage excludes planned staging areas and portions of parcels that are anticipated to be sold after construction is complete.

[a] Total acreage may be more or less than the sum of individual zoning categories due to rounding.

SR 99 Alternative

S 216th Station Options

The potential additional station at S 216th Street would result in additional land conversion when compared to the SR 99 Alternative. This would be due to the additional area needed for a station as well as the guideway traveling from the median of SR 99 to the side of the roadway (Table 4.2-3). Of the two station options, the S 216th West Station Option would result in a slightly larger conversion of land to a transportation-related use.

Kent/Des Moines Station Options

The Kent/Des Moines HC Campus Station Option would convert more land to a transportation use than the SR 99 Alternative, while the Kent/Des Moines SR 99 East and Median Station options would convert less land (Table 4.2-3). The Kent/Des Moines HC Campus Station Option would convert more institutional (college) land, as well as single-family and multi-family property adjacent to the college.

S 260th Station Options

The potential additional station at S 260th would shift the guideway from the SR 99 median to either the west or east side of SR 99 into an area with mostly commercial and vacant land uses. Since the S 260th Station would leave the SR 99 right-of-way, it would convert more adjacent land to a transportation use than the SR 99 Alternative. Of the S 260th station options, the S 260th West Station Option would convert the greatest amount of land to transportation use. Most of the land that would be converted would be either commercial or vacant.

S 272nd Redondo Trench Station Option

This station option would result in a greater amount of land use conversion than the SR 99 Alternative. Most of the land that would be converted would be either commercial or vacant.

Federal Way SR 99 Station Option

The Federal Way SR 99 Station Option would result in the conversion of more land to transportation use than the SR 99 Alternative. Most of the land that would be converted is commercial and vacant property in the Federal Way City Center.

I-5 Alternative

The I-5 Alternative would have less direct land-use impacts than the SR 99 Alternative. Much of the land that would be directly affected is currently vacant (Table 4.2-3). Some of this land is owned by WSDOT and is intended for future SR 509 improvements, which is a transportation use. Out of all of the alternatives, the I-5 Alternative would convert the most single- and multi-family property, concentrated north of Kent-Des Moines Road.

Kent/Des Moines Station Options

The Kent/Des Moines station options would convert less land to transportation use than the I-5 Alternative. The Kent/Des Moines SR 99 East Station Option would convert more commercial property but less acreage overall than the I-5 Alternative because the footprint for the station and parking is smaller. The Kent/Des Moines At-Grade Station Option would result in slightly less conversion of land than the I-5 Alternative and would mostly affect vacant property.

Landfill Median Alignment Option

The I-5 Landfill Median Alignment Option would convert more commercial property, but less land overall compared to the I-5 Alternative.

Federal Way City Center Station Options

The Federal Way City Center station options would convert more land to transportation use than the I-5 Alternative. The Federal Way I-5 Station Option would convert the greatest number of acres to a transportation use. The majority of the land converted by the Federal Way I-5 Station Option would be commercial. The Federal Way S 320th Park-and-Ride Station Option would convert less commercial property in the City Center than the I-5 Alternative, while the Federal Way I-5 Station Option would convert more.

SR 99 to I-5 Alternative

The SR 99 to I-5 Alternative would convert the least amount of land to transportation use because the north end is in the median of SR 99, and south of Kent-Des Moines Road the alternative is mostly within I-5 right of way. Much of the land that would be converted is commercial, with smaller amounts of institutional, vacant, single-family, and multi-family property (Table 4.2-3). Station or alignment

options described for the SR 99 and I-5 alternatives could be included in the associated portions of the SR 99 to I-5 Alternative.

I-5 to SR 99 Alternative

The I-5 to SR 99 Alternative, without considering station options or alignment options, would convert the most amount of land to transportation use. Most of the land that would be converted to transportation use would be either commercial or institutional (Table 4.2-3). Station or alignment options described for the SR 99 and I-5 alternatives could be included in the associated portions of the I-5 to SR 99 Alternative and would have the same impacts.

Indirect Impacts

Transit-Oriented Development Potential

Improvements in transportation systems can influence changes to nearby land uses. The FWLE would directly affect land use through property acquisition required for the project. However, the project itself would not directly change the uses of the land surrounding the project. Property owners make decisions about developing or redeveloping their property, and cities and counties control land-use regulations, including zoning. However, a new light rail investment can be a catalyst for TOD and redevelopment near light rail stations when local jurisdictions have planned for a higher density of land use and/or a mixture of uses. The FWLE could indirectly affect land use in areas surrounding the future light rail stations.

Increased development around the stations could provide additional public benefits such as increased transit ridership, traffic congestion relief, improved air quality, infill development and job opportunities, natural resource preservation, more housing choices, less energy consumption, and better use of public infrastructure. Revitalized station areas could attract residents and employers who would ride the light rail as well as those who would not.

TOD Conditions

TOD generally takes place under three conditions:

- When stations are located in prime regional and community centers attractive to typical market forces.
- When regional and local real estate markets are active, including willing property owners and investors.
- When public policies and regulations permit or encourage intensive development in station areas.

The Sound Transit Board adopted a Transit Oriented Development (TOD) policy in 2012 (Resolution R2012-24). It defines TOD goals and provides guidance for Sound Transit to use in the evaluation, facilitation, and implementation of TOD as it builds the regional transit system. The purpose of the policy is to support land-use change and economic development that would improve quality of life, support achievement of comprehensive and regional plans, and maximize ridership. Sound Transit's TOD policy contains

goals to support and encourage economic development, TOD, non-motorized access, housing options, and sustainability.

The TOD policy directs Sound Transit to consider TOD potential in the development of its transit projects. This includes identifying agency and community TOD opportunities and strategies during early project planning. Opportunities for partnerships with public and private interests should also be considered in decisions about acquisition, use, and disposition of land.

Experience in the United States indicates that new transit facility investments can have a major influence on land use. Supportive policies, plans, land-use regulations, and incentives can be effective in facilitating TOD near transit stations.

The potential for TOD in the FWLE corridor has been assessed as indirect impacts because TOD would not be a project element. Sound Transit's TOD program would evaluate development opportunities at specific locations as part of the station area planning efforts once a preferred alternative is identified and during final design. Sound Transit has evaluated the relative degree to which the FWLE station locations could support TOD. The analysis is documented in the *FWLE TOD Potential Technical Memorandum* (Sound Transit, 2015).

Purpose of the TOD Analysis

The TOD analysis was designed to help Sound Transit answer the following key questions:

1. Within each of the station areas, which station locations would be more supportive of TOD?
2. What combination of alignment and station locations would be more supportive of TOD?
3. Would potential additional stations at S 216th Street and S 260th Street enhance support for TOD?

To assess which station locations would be most supportive of TOD, each station location was evaluated against four general categories:

- **Access to each station location** - How accessible is the station for pedestrians, bicycles, other forms of transit, and automobiles?
- **Land Use, Plans & Policies, and Utilities around each station location** - How do existing land use policies, plans, regulations, and infrastructure support new development?
- **Market support at each station location** - Is the location competitive for multi-family housing, retail, office, and/or lodging?
- **Land availability around each station location** - How much land has the potential to support new TOD?

The four categories were considered together to provide an overall assessment of the degree to which each station option would be supportive of TOD.

Each station area was rated using a combination of quantitative and qualitative assessments based on the information available at the time of the analysis. The assessment was designed to help identify the best station location within each of the five station areas in the corridor. Station locations that are more supportive of TOD would also be more likely to experience changes in land use and development patterns when the project is built. How supportive a station is of TOD is one component of many that will help to inform the Sound Transit Board in identifying a preferred alternative. TOD support will continue to be assessed as the project evolves.

Results of the TOD analysis are summarized on Exhibit 4.2-4, which compares station options in each station area, and are mapped on Exhibit 4.2-5. The analysis is described below by station area. The amount of land with TOD potential (as determined by the land availability measure) generally mirrors the overall findings on how supportive a station area is of TOD. The acres of land with TOD potential within ¼ mile of the station areas are summarized in Table 4.2-4. More detailed information on TOD potential is provided in Appendix D4.2.

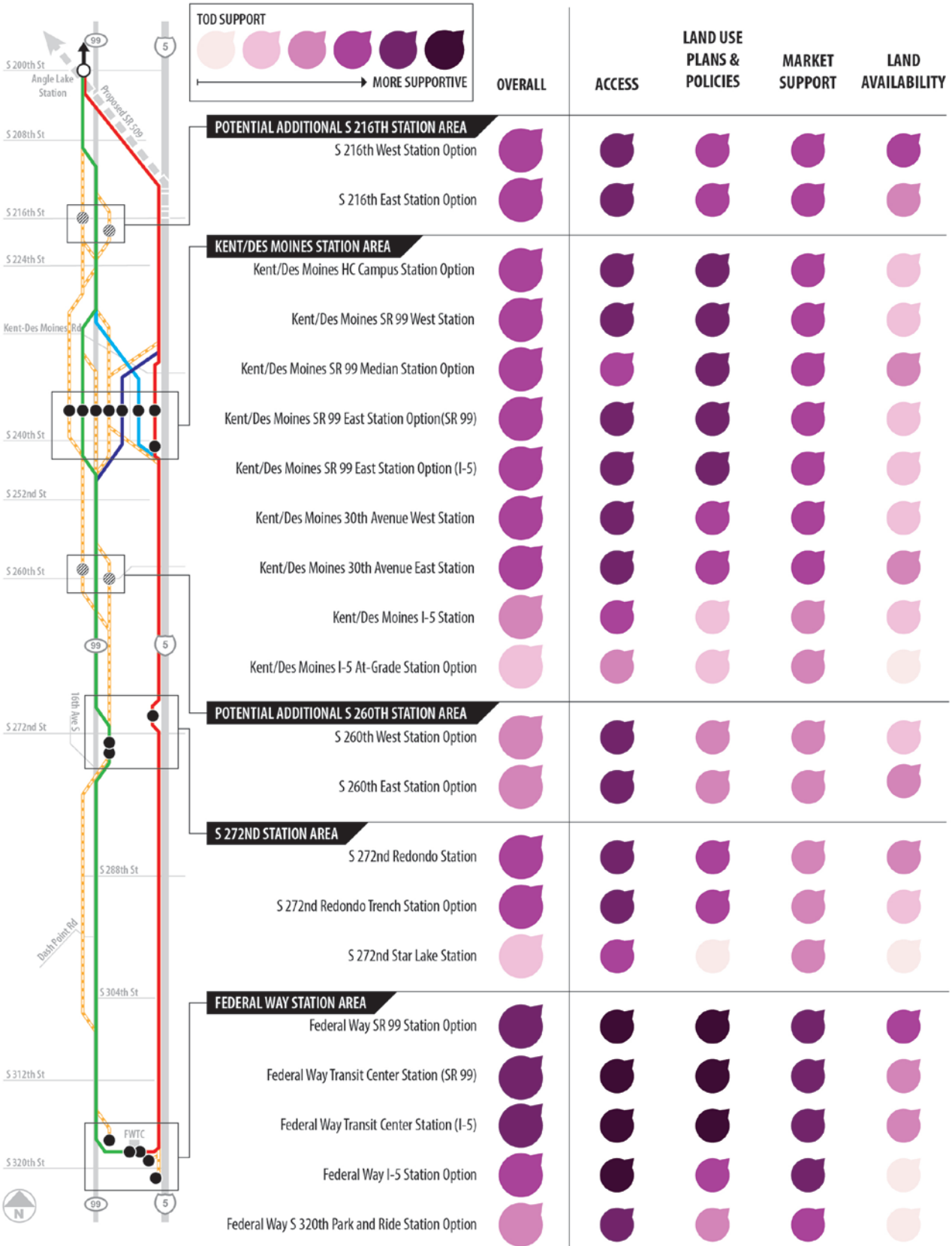
TABLE 4.2-4
TOD Potential

Station	Land with TOD Potential (acres) within ¼ Mile
S 216th Station Area	46-53
Kent/Des Moines Station Area	28-47
S 260th Station Area	36-43
S 272nd Station Area	5-44
Federal Way City Center Station Area	18-54

Note: TOD potential was evaluated by comparing the amount of redevelopable land within ¼ mile of the station to the total acreage of land overall in that ¼-mile area.

In general, alignments along SR 99 are more supportive of TOD than alignments along I-5, primarily due to three key differentiating factors: access (transit connections, access to the station area), land use (transit-supportive land use and zoning), and land with TOD potential (acres of land). Stations along I-5 had the lowest performance because of the following considerations:

- I-5 is a major barrier to station access.
- There is limited land with TOD potential.



Note: Stations listed west to east within each station area.

EXHIBIT 4.2-4
TOD Study Rating Summary

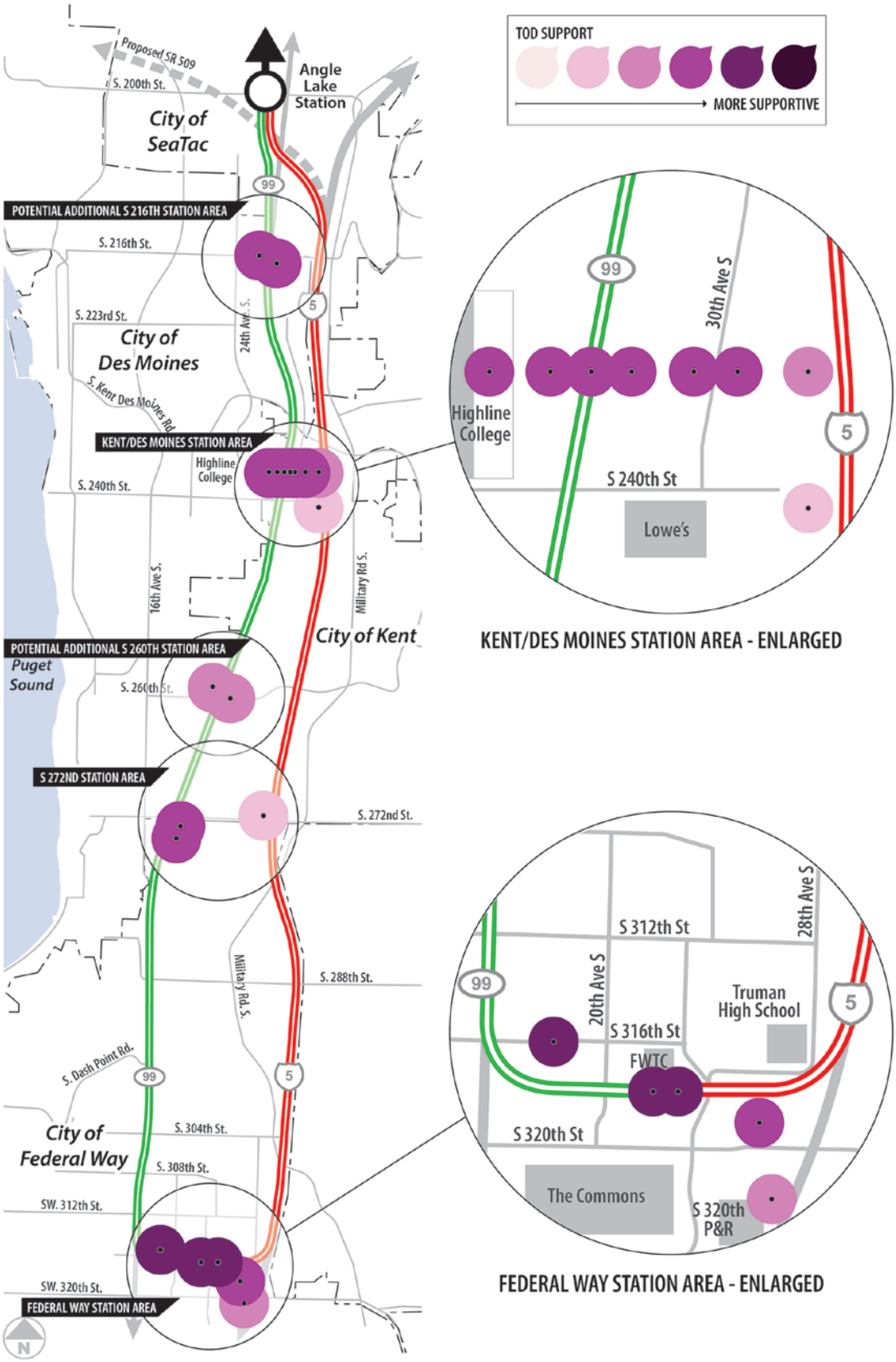


EXHIBIT 4.2-5
TOD Study Rating Map

- Any I-5 alignment must connect to the S 272nd Star Lake Station, which is the lowest performing station overall in terms of TOD support. This station lowers the TOD support score for the entire alignment, regardless of what station it connects to at Kent/Des Moines or Federal Way.
- There is no direct connection to RapidRide for stations along I-5 at Kent Des Moines or S 272nd Street.

Overall, the Federal Way Transit Center Station and Federal Way SR 99 Station Option would have the greatest potential for TOD, followed by the Kent/Des Moines SR 99 West Station, Kent/Des Moines SR 99 Median Station Option, and the Kent/Des Moines SR 99 East Station Option (for both the SR 99 Alternative and the I-5 Alternative).

S 216th Station Area (Potential Additional Station)

Within the S 216th station area, the two potential station options (West and East) are similar and would be relatively supportive of TOD. The S 216th East Station Option would have a very slight advantage in bus access and existing land use. The two options would be identical in terms of market support. The S 216th West Station Option would have slightly more land with TOD potential.

Kent/Des Moines Station Area

Within the Kent/Des Moines station area, the nine station locations have varying degrees of support for TOD. All of the SR 99 Alternative stations, the SR 99 East Station for the I-5 Alternative, and the 30th Avenue West and East stations are all moderately supportive of TOD. The other two I-5 station options (I-5 At-Grade and SR 99 East) would be the least supportive of TOD in this station area.

For the Kent/Des Moines station area, the options on SR 99 all received higher combined access ratings than those on I-5. The SR 99 East and West locations performed the best in terms of access, driven by station designs and locations that favor strong bus access in particular.

Land use, plans, and policies ratings for the nine options at Kent/Des Moines correlated with proximity to Highline College. The Highline College Campus option performed the best and the I-5 options the worst. Market support ratings indicated little

differentiation between station options, with the two I-5 options performing only slightly worse than the others.

The 30th Avenue East Station would have the greatest amount of land with TOD potential, followed by the SR 99 Median Station. The I-5 At-Grade Station would have the least amount of land with TOD potential.

S 260th Station Area (Potential Additional Station)

Within the S 260th station area, both potential additional station options (West and East) are relatively similar with respect to their support for TOD. The only notable difference is that the 260th East Station Option would have slightly more land with TOD potential. Ratings for access; land use, plans, and policies; and market support are basically the same for the two stations.

The overall degree to which these stations are supportive of TOD is relatively low compared to most of the other station areas along the corridor, in large part due to the relatively low ratings in the land use category.

S 272nd Station Area

Within the S 272nd station area, the S 272nd Redondo Station and the S 272nd Redondo Trench Station Option are similarly supportive of TOD. The only notable difference is that the S 272nd Redondo Station has more acres of land with TOD potential than the Redondo Trench Station Option.

The S 272nd Star Lake Station is less supportive of TOD than the two Redondo station options in all four categories. Although the S 272nd Star Lake Station is closer to I-5 and therefore has better auto access, the other three modal access criteria favor the Redondo options by a substantial margin. Star Lake also has much less transit-supportive land use and utilities. In terms of market support, the three options received similar overall scores, with the Redondo options indicated as very slightly better. The S 272nd Star Lake Station has less land with TOD potential compared to the Redondo station options. This is primarily because I-5 bisects the Star Lake station area and a large portion of the area is wetlands.

Federal Way City Center Station Area

The two Federal Way Transit Center stations (SR 99 and I-5) and the Federal Way SR 99 stations are similarly supportive of TOD. The close

proximity to the existing transit center provides excellent bus access for both Federal Way Transit Center stations.

Comparatively, the Federal Way I-5 Station Option, while it has the highest possible bus access rating, has much less transit-supportive land use. It has the lowest TOD potential of the five Federal Way options.

The Federal Way S 320th Park-and-Ride Station Option is the least supportive of TOD in the Federal Way station area, with the lowest individual ratings for access, land use, and market support categories. This station option also offers the second lowest amount of land with redevelopment potential.

Proximity Impacts

Proximity land-use impacts could occur if noise and visual impacts were severe enough to cause changes in adjacent land uses. Of the identified visual and noise impacts associated with the build alternatives, none would be so severe that they would negatively affect existing or potential future use of the land. Refer to Section 4.5, Visual and Aesthetics, and 4.7, Noise and Vibration, for information on these impacts.

4.2.5 Potential Mitigation Measures

No land use mitigation would be required during operation of the Federal Way Link Extension. In general, the FWLE would not result in inconsistencies with adopted land-use plans. Refer to Section 4.1 for information on how Sound Transit would minimize the impacts associated with required acquisitions, displacements, and relocations.

4.3 Economics

4.3.1 Summary

This section evaluates the potential effects on the local and regional economies from the Federal Way Link Extension (FWLE) alternatives. Economic impacts of the FWLE would include displacement of local businesses and employees due to land acquisition, and reduction of property tax revenue resulting from land being converted to transportation facilities. Table 4.3-1 provides information on potential business and employee displacements along with property tax impacts. The displacements and property tax impacts would be updated as the project design is refined.

TABLE 4.3-1
Range of Business and Employee Displacements and Property Tax Impacts by Alternative

Alternative	Business Displacements (Range)	Employee Displacements (Range)	Annual Property Tax Impacts (Range)
SR 99 Alternative	**104** (84-140)	**580** (480-980)	**$91,380** ($77,856-$133,014)
I-5 Alternative	**29** (4-46)	**260** (10-390)	**$53,575** ($29,907-$74,562)
SR 99 to I-5 Alternative	**43** (23-56)	**420** (210-480)	**$58,135** ($35,235-$74,125)
I-5 to SR 99 Alternative	**98** (85-119)	**500** (480-640)	**$95,229** ($92,734-$116,580)

A potential indirect beneficial economic effect of the FWLE is the possibility that the transit investment could encourage private investment in transit-oriented development (TOD), which could result in increased property tax and sales tax revenues for local jurisdictions. Alternatives in the State Route (SR) 99 corridor generally have greater potential and opportunities for the emergence of TOD because the zoning is more supportive of this development, there are fewer physical major impediments to pedestrian movement (such as limited crossings of I-5), and this corridor has a larger area of redevelopable land. Appendix D4.3 contains tables with supporting information for the assessment of tax impacts.

4.3.2 Introduction to Resource and Regulatory Requirements

Regional transit projects such as the FWLE can change patterns of regional and local mobility and access, which in turn can affect aspects of the regional or local economies such as development

patterns, employment opportunities, business accessibility, and/or retail sales. The FWLE may also have more localized economic impacts on businesses and properties in the cities it would pass through.

The purpose of the economic analysis is to identify the potential adverse and beneficial impacts of the FWLE on the local and regional economies. The analysis includes the anticipated direct and indirect impacts from business displacements and changes in tax revenue for the FWLE alternatives in the corridor when compared to the No Build Alternative. There are no regulatory requirements related to economics.

4.3.3 Affected Environment

Sound Transit evaluated economic impacts in a study area consisting of three different scales:

- **Regional:** Economic impacts on the regional economy (such as effects on employment, traffic mobility, and congestion) were analyzed for a study area consisting of the four counties in the Central Puget Sound Region: Snohomish, King, Kitsap, and Pierce.
- **City:** Economic impacts of the project on local tax revenues were assessed for cities that would be affected by property acquisitions (SeaTac, Des Moines, Kent, and Federal Way).
- **Site-specific:** Site-specific impacts were evaluated for a study area of a ½ mile around the light rail alignments and stations. As described in Section 4.3.3.2, the study area for the economic analysis is generally bounded by a ½-mile radius around the alignments and stations, but the transportation analysis zones (TAZs) used for data collection include some geographic areas more than a ½ mile from the project alignment in order to obtain complete data coverage of the study area.

4.3.3.1 Regional Demographic and Economic Trends

This section provides demographic and economic regional forecasts for the four-county Central Puget Sound Region.

Population, Households, and Employment

Regional economic and demographic forecasts are prepared periodically by the Puget Sound Regional Council (PSRC). Table 4.3-2 shows detailed population, household, and employment data from 2010, along with projections for 2035 for the four counties in the region and the total for the region. Although King County has lower

population and household growth rates than the other counties, its growth is projected to account for 40 percent of total regional population growth and 52 percent of household growth.

TABLE 4.3-2
Regional Population, Household, and Employment Forecasts, 2010-2035

County	2010	2035	Average Annual Growth Rate
Population			
King	1,931,249	2,394,179	0.9%
Kitsap	251,133	373,567	1.6%
Pierce	795,225	1,038,757	1.1%
Snohomish	713,335	941,987	1.1%
Total	3,690,942	4,748,490	1.2%
Households			
King	789,232	1,017,084	1.0%
Kitsap	97,220	147,376	1.7%
Pierce	299,918	402,387	1.2%
Snohomish	268,325	371,358	1.3%
Total	1,454,695	1,938,205	1.2%
Employment			
King	1,181,537	1,750,151	1.6%
Kitsap	97,417	131,063	1.2%
Pierce	317,874	465,692	1.5%
Snohomish	268,586	402,847	1.6%
Total	1,865,414	2,749,753	1.6%

Source: PSRC, 2013a.

The employment growth rate in King County is expected to average 1.6 percent per year, similar to the regional level. In keeping with regional and national employment trends, most of these new jobs are anticipated to be created in the service sector, specifically food and beverage services, professional and business services, and health care.

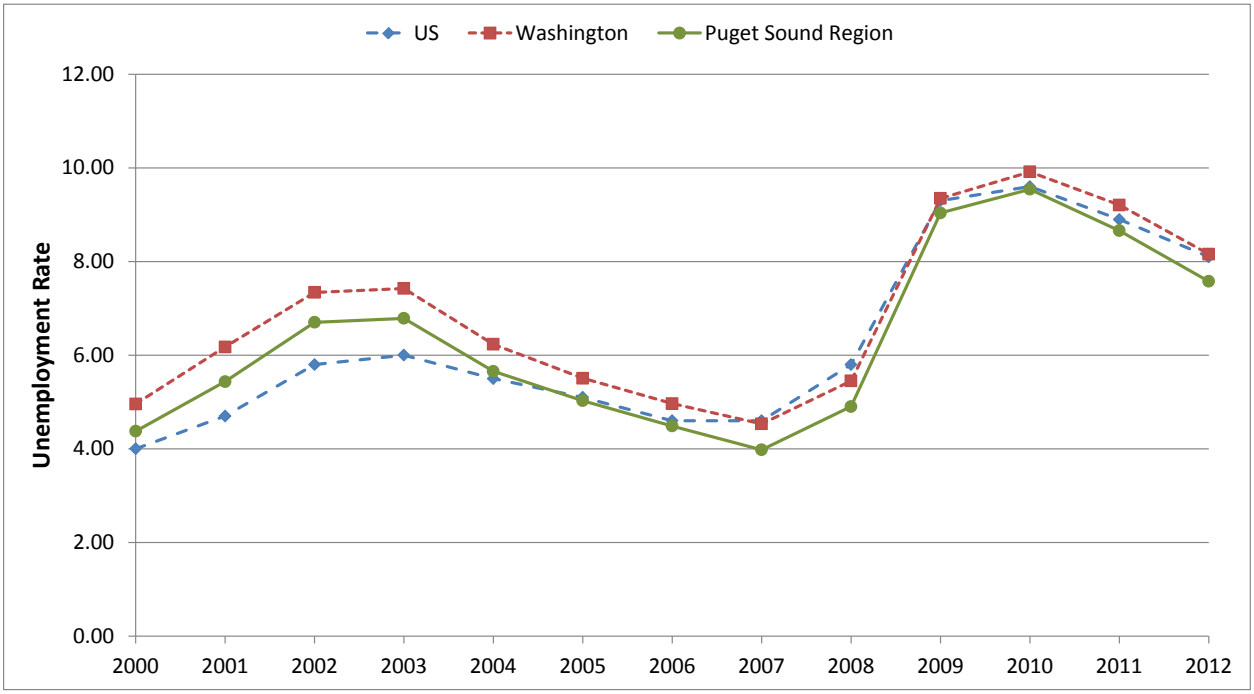
Income

Median household income in the Puget Sound Region is higher than the state average, although it has fluctuated in recent years due to the economic recession. According to the U.S. Census, median household incomes in the counties in the Central Puget Sound Region grew from 2005 to 2008, then generally declined over the next several years, beginning to stabilize in 2011 (U.S. Census Bureau, 2011). All four counties ended 2011 with median incomes below their

2008 peak. In 2011, King County had the highest median household income at $68,775, followed by Snohomish County at $63,685, Kitsap County at $60,314, and Pierce County at $55,214.

Unemployment

Exhibit 4.3-1 charts unemployment trends for the region, Washington State, and the United States over the period from 2000 to 2012. From 2000 until approximately 2005, the region's unemployment rate was lower than that of Washington State as a whole, but still higher than the national unemployment rate. From approximately 2006 through 2012, the region's unemployment rate has remained below those of both the state and the nation.



Note: Regional unemployment was calculated using an employee-weighted average of the unemployment rates for the Seattle-Tacoma-Bellevue, Washington, Metropolitan Statistical Area (which includes King, Snohomish, and Pierce Counties) and the Bremerton-Silverdale, Washington, metropolitan statistical area (which includes Kitsap County).

Source: U.S. Bureau of Labor Statistics, 2013.

EXHIBIT 4.3-1
Unemployment Rates, 2000–2012

4.3.3.2 Demographic and Economic Trends in the Study Area

Table 4.3-3 summarizes population, household, and employment forecasts for TAZs from PSRC that are within ½ mile of the alignment alternatives. The proximity of the alternatives results in many of the same TAZs falling within the study areas for all alternatives. Population, household, and employment figures for individual jurisdictions are based on TAZs that intersect with city boundaries.

TABLE 4.3-3
Study Area Population, Household, and Employment Forecasts, 2010–2035, by Jurisdiction

Jurisdiction	SR 99 Corridor			I-5 Corridor		
	2010[a]	2035[b]	Average Annual Growth Rate	2010[a]	2035[b]	Average Annual Growth Rate
SeaTac						
Population	9,223	14,273	1.8%	9,223	14,273	1.8%
Households	2,978	5,664	2.6%	2,978	5,664	2.6%
Employment[c]	3,727	12,612	5.0%	3,727	12,612	5.0%
Tukwila[d]						
Population	1,017	4,561	6.2%	1,017	4,561	6.2%
Households	471	2,040	6.0%	471	2,040	6.0%
Employment	5,005	8,253	2.0%	5,005	8,253	2.0%
Des Moines						
Population	21,969	26,234	0.7%	13,722	15,711	0.5%
Households	8,536	11,186	1.1%	5,003	6,301	0.9%
Employment	5,619	11,031	2.7%	3,237	6,284	2.7%
Kent						
Population	9,923	12,098	0.8%	18,174	21,182	0.6%
Households	3,535	4,703	1.2%	6,695	8,330	0.9%
Employment	1,645	2,896	2.3%	3,433	5,372	1.8%
Federal Way						
Population	31,128	36,853	0.7%	20,306	25,150	0.9%
Households	11,619	14,854	1.0%	7,796	10,434	1.2%
Employment	6,805	11,437	2.1%	6,196	9,849	1.9%
Unincorporated King County[e]						
Population	-	-	-	22,098	28,098	1.0%
Households	-	-	-	7,412	10,286	1.3%
Employment	-	-	-	5,439	11,315	3.0%
Total						
Population	**73,260**	**94,019**	**1.0%**	**84,540**	**108,975**	**1.0%**
Households	**27,139**	**38,447**	**1.4%**	**30,355**	**43,055**	**1.4%**
Employment	**22,801**	**46,229**	**2.9%**	**27,037**	**53,686**	**2.8%**

Source: PSRC, 2013b.
[a] 2010 numbers are based on TAZ-level estimates of actual population, households, and employment.
[b] 2035 numbers are based on TAZ-level forecasts derived from PSRC's Land Use Target forecast dataset.
[c] Jurisdiction includes TAZs for which employment data has been suppressed. Actual employment is likely to be slightly higher than indicated here.
[d] All areas of Tukwila within the study area are located east of I-5.
[e] All unincorporated TAZs are located east of I-5. The SR 99 Corridor does not contain any unincorporated areas.

For TAZs that cross into two or more jurisdictions, the jurisdiction with the largest geographic area within the TAZ was assigned to that individual TAZ. Also important to note is that the TAZs cover an area that extends outside the study area.

As a result, the projected population and employment figures in the table are likely higher than the actual population and employment within ½ mile of the alignments. In addition, TAZs located east of Interstate 5 (I-5) are large and include much of the Kent Valley, and therefore may include some population and employment that may be less likely to use and benefit from the FWLE. For the SR 99 Corridor, 7,349 jobs and 16,286 residents are located in TAZs east of I-5. By 2035, these areas are forecast to contain 11,602 jobs and 21,837 residents. For the I-5 Corridor, 12,788 jobs and 38,384 residents are located in TAZs east of I-5. By 2035, these areas are forecast to contain 22,917 jobs and 49,935 residents.

Major Employers in the Project Vicinity

Employment in the vicinity of the study area encompasses a variety of industries and business sectors, including transportation, education, and retail. Seattle-Tacoma International Airport, operated by the Port of Seattle, is located at the northern edge of the study area. Highline College (HC) is located in Des Moines on SR 99 at S 240th Street. The Commons at Federal Way, a major shopping and entertainment center, and surrounding retail activities are located at the southern end of the study area between SR 99 and I-5 around S 320th Street. The area east of I-5 and west of SR 167 contains several large industrial and business parks that are home to a variety of distribution and manufacturing employers, including Boeing's Kent Space Center, Sysco, Hexcel Corporation, and FedEx.

Study Area Population and Employment

As shown in Table 4.3-3, the I-5 corridor has a greater number of people, households, and jobs within a ½ mile than the SR 99 corridor.

4.3.3.3 Regional Transportation of Goods and Services

Both regional and interstate commerce are heavily dependent on the movement of goods and people in the I-5 and SR 99 corridors. Both corridors currently experience heavy congestion during peak hours. Congested conditions on these regional highways can create logistical challenges for local businesses, limiting their ability to efficiently deliver goods in the region and restricting their access to labor due to extended commute times. These conditions have led to a rise in the

number of transport companies arranging deliveries to customers during off-peak hours. This practice is often not feasible for many smaller businesses, which may find it more effective to relocate to less- congested areas of the region. Chapter 3, Transportation Environment and Consequences, contains a detailed discussion of current and future travel conditions in the I-5 and SR 99 corridors, including the general mobility of freight in the region.

4.3.4 Environmental Impacts

4.3.4.1 No Build Alternative

The No Build Alternative would have fewer transportation options and longer travel times for transit riders (Chapter 3, Transportation Environment and Consequences, provides additional information on delays). Fewer transportation options and longer travel times may potentially result in increased road congestion and less transit usage due to fewer alternatives to driving and slower buses from more congestion. This may deter residents and businesses, reducing the pace of development as well as the overall level of investment in the study area. In addition, the development that occurs could be more dispersed and of lower density than with the FWLE. The No Build Alternative would likely result in a different pattern of economic development and property redevelopment than with the FWLE.

4.3.4.2 Build Alternatives

The extension of the Link light rail system from SeaTac to Federal Way would have economic impacts on the local business environment, adjacent communities, and the region. Direct impacts may include business and employee displacements, and tax revenue impacts on local communities. Indirect impacts may include changes to development patterns such as the amount, location, and intensity of development. Indirect impacts on local economic conditions may include changes in parking, noise, visual conditions and/or access. Impacts resulting from construction activities associated with the FWLE, including job creation from project construction, are described in Chapter 5, Construction.

Direct Impacts

This section discusses the direct economic and fiscal long-term impacts of transit operations, business displacement, and property acquisitions in the study area. Direct impacts include commercial properties acquired, displacement of businesses and employees for

each alternative, and impacts on the local tax base due to property acquisitions and business displacements.

Commercial Properties Acquired

Each alternative would result in the acquisition of commercial properties for construction of the FWLE. Commercial properties not only generate tax revenue for local governments, they provide employment opportunities and serve as anchors for the local economy. Each alternative and its associated design options would result in a different distribution of commercial property acquisitions within the project study area. Table 4.3-4 shows the total number of commercial properties that would be fully acquired for each alternative and the number of parcels by city.

TABLE 4.3-4
Commercial Property Acquisitions by City

Alternative	Total Number of Commercial Parcels Impacted (Full Acquisitions)	Number of Commercial Parcels Impacted by City (Full Acquisitions)			
		SeaTac	Des Moines	Kent	Federal Way
SR 99 Alternative	**38** (31-65)	**0** (0-1)	**11** (2-21)	**16** (12-35)	**11** (11-15)
I-5 Alternative	**7** (0-25)	**0** (0-0)	**0** (0-1)	**5** (0-17)	**2** (0-7)
SR 99 to I-5 Alternative	**16** (14-25)	**0** (0-1)	**7** (7-11)	**7** (7-7)	**2** (0-7)
I-5 to SR 99 Alternative	**34** (34-53)	**0** (0-0)	**1** (1-3)	**22** (22-36)	**11** (11-15)

As shown in Table 4.3-4, the SR 99 Alternative would result in the highest number of commercial property acquisitions, distributed fairly evenly between the cities of Des Moines, Kent, and Federal Way. The City of SeaTac would experience relatively few commercial property acquisitions under any of the alternatives. Commercial property acquisitions have the potential to result in business and employee displacements, as well as impacts on local property tax revenue, as discussed in the following sections. The impacts associated with each option are shown in Table D4.3-1 in Appendix D4.3.

Displacements

Table 4.3-5 shows the estimates by alternative of commercial, industrial, public, or institutional properties that are projected to be partially or fully acquired, and businesses and estimated employees

TABLE 4.3-5
Properties Affected and Displacements by Alternative

Alternative		Total Commercial, Industrial, Public, and Institutional Parcels Affected		Displacements	
		Partial	Full	Businesses	Employees
SR 99 Alternative		**171**	**38**	**104**	**580**
S 216th Station Options	S 216th West Station	-2	+4	+13	+60
	S 216th East Station	-1	+3	+2	+10
Kent/Des Moines Station Options	Kent/Des Moines HC Campus Station	-4	-2	-7	+40
	Kent/Des Moines HC from S 216th W Station	-20	+7	+9	+200
	Kent/Des Moines SR 99 Median Station	+6	-8	+2	-10
	Kent/Des Moines SR 99 East Station	-5	-6	-1	-80
S 260th Station Options	S 260th West Station	-27	+13	+18	+140
	S 260th East Station	-11	+9	+21	+80
S 272nd Redondo Trench Station Option		-29	+6	--	+60
Federal Way SR 99 Station Option		-15	+4	-13	-20
I-5 Alternative		**34**	**36**	**29**	**260**
Kent/Des Moines Station Options	Kent/Des Moines At-Grade Station	+2	-8	-5	-40
	Kent/Des Moines SR 99 East Station	+1	+4	+17	+130
Landfill Median Alignment Option		--	--	--	--
Federal Way City Center Station Options	Federal Way I-5 Station	-4	+5	-5	--
	Federal Way S 320th Park-and-Ride Station	-3	-1	-20	-210
SR 99 to I-5 Alternative		**45**	**26**	**43**	**420**
S 216th Station Options	S 216th West Station	-2	+4	+13	+60
	S 216th East Station	-1	+3	+2	+10
Landfill Median Alignment Option		--	--	-	--
Federal Way City Center Station Options	Federal Way I-5 Station	-4	+5	-5	--
	Federal Way S 320th Park-and-Ride Station	-3	-1	-20	-210
I-5 to SR 99 Alternative		**161**	**51**	**98**	**500**
S 260th Station Options	S 260th West Station	-23	+6	+11	+50
	S 260th East Station	-11	+9	+21	+80
S 272nd Redondo Trench Station Option		-29	+6	--	+60
Federal Way SR 99 Station Option		-15	+4	-13	-20

displaced (Section 4.1, Acquisitions, Displacements, and Relocations, provides additional information on displacements). Regional employment density averages for various types of businesses (retail, office, industrial, etc.) and King County Assessor information

regarding type of land use and net square footage of the affected buildings were used to estimate the number of employees for displaced businesses. This analysis assumed that affected buildings are completely occupied (i.e., no empty storefronts or office suites), so it represents a conservative estimate of affected employment in the study area.

The number of businesses displaced varies between alternatives. The SR 99 Alternative would displace the most businesses (104), although the I-5 to SR 99 Alternative would displace almost as many (100). The I-5 Alternative would displace the fewest businesses of the alternatives (29). As shown in Table 4.3-1, the maximum number of employees displaced would be approximately 980 for the SR 99 Alternative when combined with the S 216th West Station Option, the Kent/Des Moines HC Campus Station Option, the S 260th West Station Option, and the S 272nd Redondo Trench Station Option. This represents less than 4 percent of the 2010 employment base for either the SR 99 corridor or the I-5 corridor. When accounting for projected employment growth to the year 2035, this drops to less than 3 percent of the employment base for either corridor.

The displacement of businesses and employees does not necessarily mean those businesses and jobs would be permanently lost. Sound Transit provides relocation assistance to displaced businesses, and businesses are helped to relocate; therefore, it is likely that many jobs and businesses would be relocated and not lost. Businesses may choose to relocate to sites within the same area, but some businesses may relocate to other areas or permanently close once their property is purchased; in these cases, jobs associated with the displaced businesses may be lost. Relocation opportunities for local businesses are discussed in Section 4.1.5, Relocation Opportunities. The Sound Transit Acquisition and Relocation Policy, which describes the process for helping people whose property or business is acquired for Sound Transit projects, is summarized in Section 4.1.6.

SR 99 Alternative

The SR 99 Alternative would displace the greatest number of businesses with a total of 104 businesses affected and an estimated 580 employees. The S 260th East Station Option would have the greatest potential to displace additional businesses (up to 21 additional businesses), while the Kent/Des Moines HC Campus Station Option from the 216th West Station Option would have the

greatest increase in the number of employees displaced (up to 200 more).

I-5 Alternative

The I-5 Alternative would result in the fewest businesses displaced with a total of 29 businesses and 260 employees affected. The Kent/Des Moines SR 99 East Station Option would increase the number of businesses displaced by over 50 percent, affecting 17 additional businesses and displacing an estimated 130 additional employees.

SR 99 to I-5 Alternative

The SR 99 to I-5 Alternative would result in greater business displacement impacts than the I-5 Alternative, but less than the SR 99 Alternative, displacing 43 businesses and an estimated 420 employees.

I-5 to SR 99 Alternative

The I-5 to SR 99 Alternative would displace 98 businesses, 6 fewer than the SR 99 Alternative, and approximately 80 fewer employees. This alternative would have greater impacts than the I-5 and SR 99 to I-5 alternatives.

Impacts of Displacements on Tax Base of Cities

With all build alternatives, Sound Transit would acquire private residential and commercial properties, removing those properties from the tax rolls. Properties fully acquired by Sound Transit would no longer generate property tax revenues for the cities in which they are located. Table 4.3-6 presents the initial impacts on property tax revenues by alternative, based on 2013 assessed property values and city tax levy rates. The values depicted represent only property tax impacts on the cities of SeaTac, Kent, Des Moines and Federal Way. The project would not acquire any properties in unincorporated King County and would therefore have no property tax impacts on the County. These impacts are referred to as “initial property tax impacts” because the immediate impact of acquisition would be a reduction in property tax revenue. However, the long-term effects of acquisition depend on other factors. Property tax would no longer be collected from parcels fully acquired by Sound Transit; as a result, tax rates charged to remaining taxpayers could increase slightly to recover these lost funds.

TABLE 4.3-6
Initial Property Tax Impact by City

Alternative	Total Annual Initial Property Tax Impact[a]	Initial Property Tax Impact by City and Percentage of Budgeted Property Tax Revenue							
		SeaTac		Des Moines		Kent		Federal Way	
		%	$	%	$	%	$	%	$
SR 99 Alternative	**$91,380** ($77,855-$133,014)	**0.0%** (0.0-0.0)	**$0.00** ($0.00-$1,791)	**0.4%** (0.1-1.3)	**$14,269** ($4,808-$37,945)	**0.2%** (0.2-0.3)	**$29,275** ($24,833-$48,894)	**0.5%** (0.5-0.5)	**$47,836** ($45,341-$49,838)
I-5 Alternative	**$53,575** ($29,907-$74,562)	**0.0 %** (0-0)	**$1,156** ($1,516-$1,516)	**0.4%** (0.4-0.5)	**$13,496** ($13,207-$15,886)	**0.1%** (0.1-0.2)	**$16,023** ($15,543-$27,390)	**0.2%** (0.0-0.3)	**$22,900** ($0-$30,130)
SR 99 to I-5 Alternative	**$58,135** ($35,235-$74,125)	**0.0 %** (0-0)	**$0.00** ($0.00-$1,791)	**0.4%** (0.4-0.6)	**$14,417** ($14,417-$22,947)	**0.1%** (0.1-0.1)	**$20,818** ($20,818-$21,038)	**0.2%** (0.0-0.3)	**$22,900** ($0-$30,130)
I-5 to SR 99 Alternative	**$95,228** ($92,734-$116,580)	**0.0%** (0.0-0.0)	**$1,156** ($1,156-$1,156)	**0.4%** (0.4-0.6)	**$15,462** ($15,462-$21,034)	**0.2%** (0.2-0.3)	**$30,775** ($30,775-$50,124)	**0.5%** (0.5-0.5)	**$47,836** ($45,341-$49,838)

[a] Impacts are based on 2013 municipal budgets and levy rates.

Tax revenue for local cities is derived from a variety of sources. While this Draft EIS examines the effects on property tax revenue in detail, initial property tax impacts do not include all possible impacts on tax revenue to local cities. Tax impacts, both initial and long-term, also depend on the type of property acquired. For example, commercial or industrial properties that are converted to transportation use could also result in loss of Business and Occupation (B&O) and sales tax revenue, whereas residential properties would only result in property tax revenue loss. Some of the businesses displaced by construction of the project would likely relocate elsewhere within their current jurisdiction; however, reduced local tax revenues could result if businesses relocate outside of their current jurisdiction. Some of the land acquired may only be needed during construction and could be released after project completion, allowing for development and generation of new tax revenues. In addition, the presence of enhanced transit service could promote future private development and investment in the transit station areas, leading to long-term gains in property and sales tax revenue for cities. This is discussed in greater detail in the Positive Indirect Impacts and Potential for Transit-Oriented Development sections below.

Table 4.3-6 shows the initial property tax effects in dollars, as well as the percent of annual city tax revenue that would be removed due to full property acquisitions. The table shows the impacts of each of the four alternatives and provides a range for impacts when their associated station and alignment options are included. The range may include one or more options in order to determine the minimum and maximum potential impacts. On the whole, the impacts on municipal budgets resulting from removal of acquired properties from the tax rolls would be small.

For almost all alternatives and options, the initial property tax impact would represent less than 0.5 percent of the city's budgeted property tax revenue. The greatest impact would be property taxes impacts of 1.3 percent of the budget for the City of Des Moines, which would occur with the SR 99 Alternative combined with the potential additional station at S 216th Street (West option), the Kent/Des Moines HC Campus Station Option, and the potential additional station at S 260th Street (West option). The impacts associated with each option are shown in Table D4.3-2 in Appendix D4.3.

The SR 99 Alternative and the I-5 to SR 99 Alternative have the highest total initial property tax impacts at $91,380 and $95,229, respectively. The I-5 Alternative and the SR 99 to I-5 Alternative have lower initial property tax impacts at $53,575 and $58,135, respectively. The addition of various station options can either increase or reduce property tax impacts as a result of either requiring additional properties beyond the alternative, avoiding properties, or using property already publicly owned. In addition, the Landfill Median Alignment Option would result in a negligible increase in property tax impacts for the I-5 Alternative and SR 99 to I-5 Alternative.

Impacts on Regional Transportation of Goods and Services

The primary effects from operation of the project on regional transportation of goods and services would be changes in regional freight mobility on I-5 and SR 99, as well as the surrounding surface street network. As described in Chapter 3, Transportation Environment and Consequences, 2035 peak travel times in the I-5 and SR 99 corridors are anticipated to moderately increase relative to current conditions. The availability of light rail would allow travelers to avoid traffic congestion by using transit.

Future regional freight conditions would be similar relative to the No Build Alternative. Localized improvements in freight access could occur, but due to separation of the light rail line from most roadway travel lanes, the FWLE is not expected to adversely affect freight mobility. Chapter 3 contains a detailed discussion of transportation impacts associated with the FWLE.

Indirect Impacts

Operation of the FWLE could have both positive and negative indirect impacts on economic conditions in the study area. Light rail facilities provide additional transit access, which can increase property values near stations and increase the potential for development and redevelopment in station areas, but it can also change existing traffic patterns and vehicular access for businesses patrons. The following sections describe the positive and negative indirect impacts most likely to result from operation of the build alternatives.

Positive Indirect Impacts

Light rail projects often increase pedestrian activity in the vicinity of stations and can bring a large number of customers to businesses located near light rail stations. Increased access to transit can make

surrounding properties more desirable for commercial or mixed-use development through increased visibility and exposure to large volumes of pedestrian traffic. Likewise, convenient access to both transit and commercial businesses can foster residential or mixed-use development in the vicinity of stations. Retail and residential uses around light rail stations attract employment uses, particularly office and service uses, which are typically higher-density land uses. High-density, mixed-use land use patterns, and the potential for this type of development pattern to emerge under each of the alternatives, is discussed later in this section under Potential for Transit-Oriented Development. TOD potential is also discussed in Section 4.2, Land Use.

Recent studies in Denver, Buffalo, Washington D.C., San Francisco, and Portland indicate that both residential and commercial properties located near light rail transit stations are typically valued higher than similar properties without access to transit service (Jackson, 2010; Hess and Almeida, 2007; Cervero et al., 2004). The FWLE could also potentially lead to increased property values near light rail station areas, which would result in an associated increase in property tax revenue for cities. In addition, if the higher-density mixed-use land use patterns associated with TOD emerge, the greater density of businesses, employees, and residences could also lead to increased revenue for cities in the form of sales and B&O taxes.

While increased property values near FWLE light rail stations could be expected, they are not assured. Property values at any given location are influenced by a multitude of factors, and other forces such as consumer confidence, local development pressures, and fluctuations in the regional economy may either increase or constrict property values, regardless of the presence of light rail transit service. In addition to market factors, the emergence of the land use patterns associated with TOD and its associated property value and tax revenue benefits may also be aided or impeded by local development patterns and regulatory conditions. The potential for each of the alternatives to result in TOD is assessed later in this section under Potential for Transit-Oriented Development.

Negative Indirect Impacts

While the presence of light-rail facilities often has positive economic effects on the surrounding area, it is also possible for development of light rail to have negative effects on the local economic conditions.

The acquisition of commercially zoned property for light rail facilities would remove that property from a city's developable land base, reducing that city's overall commercial development capacity until additional property is zoned for commercial uses or zoning regulations are amended to allow for more intense development. This could occur along SR 99 where areas zoned as residential could be rezoned as commercial or mixed use, or commercial areas could be rezoned as mixed use. Construction of the FWLE would require the acquisition of commercially zoned properties in SeaTac, Des Moines, Kent, and Federal Way, which could result in reduced potential for long-term commercial growth, depending on how much of a city's commercial land base is acquired and whether a city modifies zoning elsewhere to allow for increased density that would generate greater tax revenue. Table 4.3-7 summarizes the percentage of each city's commercially zoned land base that would be fully acquired for construction of the FWLE under each of the alternatives. Percentages are presented as a range to account for variation due to inclusion of station and alignment options.

As shown in Table 4.3-7, the percentage of each city's commercially zoned land base that would be impacted by construction of the FWLE would vary fairly widely by alternative, but in most cases would impact only a small portion of the city's commercially zoned land. The greatest impacts would occur under the SR 99 and I-5 to SR 99 alternatives, which have the potential to affect up to 7.6 percent of the commercially zoned land in Federal Way, if Commercial and Mixed Use zoning categories are considered together.

TABLE 4.3-7
Percent of Total Commercially Zoned Land Within Each City to be Acquired for FWLE

Alternative	SeaTac		Des Moines		Kent		Federal Way	
	Commercial %	Mixed Use %	Commercial %	Mixed Use %	Commercial %	Mixed Use %	Commercial %	Mixed Use %
SR 99 Alternative	**0** (0-0)	**0** (0-0)	**2.2** (0.6-7.7)	**0** (0-0)	**1.2** (1.0-3.2)	**0** (0-0.2)	**2.4** (2.3-2.4)	**3.9** (3.9-5.2)
I-5 Alternative	**0** (0-0)	**0.1** (0.1-0.1)	**0** (0-0)	**0** (0-0)	**0.4** (0.4-1.2)	**0.1** (0.1-1.2)	**0** (0-0)	**2.5** (2.5-4.2)
SR 99 to I-5 Alternative	**0** (0-0)	**0** (0-0)	**1.5** (1.5-2.9)	**0** (0-0)	**0.6** (0.6-0.6)	**0.2** (0.2-0.2)	**0** (0-0)	**2.5** (2.5-4.2)
I-5 to SR 99 Alternative	**0** (0-0)	**0.1** (0.1-0.1)	**0** (0-1.0)	**0** (0-0)	**1.2** (1.2-3.2)	**0.3** (0.3-0.3)	**2.4** (2.3-2.4)	**3.9** (3.9-5.2)

Note: Range indicates range of impacts with options.
Sources: King County Assessor, City of SeaTac, City of Federal Way, City of Des Moines, City of Kent.

The impacts associated with each option are shown in Table D4.3-3 in Appendix D4.3.

The presence of light-rail facilities can also have effects on property values. Increased property values often result from the synergy created by the development of residential, retail, and transit in proximity. However, property values can be negatively affected if one or more of the components of this land use mix does not materialize. For example, if transit stations are located in areas where local land use and zoning regulations are not conducive to mixed use, retail, or high-density residential development, such as would be the case with existing single-family neighborhoods, light rail stations may be viewed negatively, rather than a benefit. As described in Section 4.5, Visual and Aesthetic Resources, the primary cause of negative visual impacts would be from alteration of vegetation and buildings, as well as the introduction of elevated structures. Likewise, the rail lines between stations have the potential to expose nearby properties to additional noise, light and glare, vibrations, and view impacts, while providing no amenities to increase property values. Anticipated noise and vibration impacts associated with construction of the FWLE are described in Section 4.7, Noise and Vibration, and all would be mitigated.

As described in Section 3.4.4, Parking, in Chapter 3, Transportation, all of the FWLE build alternatives would affect the amount of parking available in the project vicinity. While some new parking would be provided as part of the various station options, all of the alternatives would result in a net reduction in the amount of private, off-street parking in the area. Although lack of parking can deter patrons from frequenting local businesses, this effect may be offset by the increased availability of transit, depending on the type of business. Businesses that provide services or sell easily portable goods would be less affected by reductions in available parking than businesses that sell larger goods that require an automobile to move.

Potential for Transit-Oriented Development

Changes to transportation systems can influence nearby land uses. In the case of high-capacity transit projects like the FWLE, improved access to transit, combined with land use regulations that are conducive to a mix of residential and commercial uses and an active real estate market, can encourage increased development density near transit stations. The emergence of TOD in station areas can

provide economic benefits in the form of localized increases in property values and increased sales tax revenue.

Based on the factors described above, some station areas are more conducive to this pattern of development than others. As described in Section 4.2, Land Use, the greatest potential for TOD occurs in the Federal Way Station Area and, to a lesser extent, the Kent/Des Moines Station Area. In particular, the Federal Way Transit Center Station, Federal Way SR 99 Station, and the Kent/Des Moines SR 99 East Station options have the most supportive mix of conditions for TOD, and these areas would realize the greatest economic benefits associated with such development.

4.3.5 Potential Mitigation Measures

Long-term operation of the FWLE is not anticipated to result in adverse effects requiring the application of potential mitigation measures. Relocation assistance for business displacements is discussed in Section 4.1, Acquisitions, Displacements, and Relocations.

4.4 Social Impacts, Community Facilities, and Neighborhoods

4.4.1 Summary

All Federal Way Link Extension (FWLE) alternatives would travel along major transportation corridors and along the edges of neighborhoods, thus minimizing potential impacts. None of the FWLE alternatives would bisect a residential neighborhood, adversely affect community cohesion, or change access to or from neighborhoods, but the alternatives would affect neighborhoods by removing residences along the edges. The SR 99 Alternative would displace community facilities and have the greatest noise impacts before mitigation and displace the most businesses, but would have the fewest residential displacements. The I-5 Alternative would displace fewer community facilities and have the most residential displacements but fewer noise impacts before mitigation and displace the fewest number of businesses. The FTA has made a preliminary determination that the FWLE would not result in disproportionately high and adverse effects on minority and/or low-income populations. See Chapter 7, Environmental Justice, for additional information.

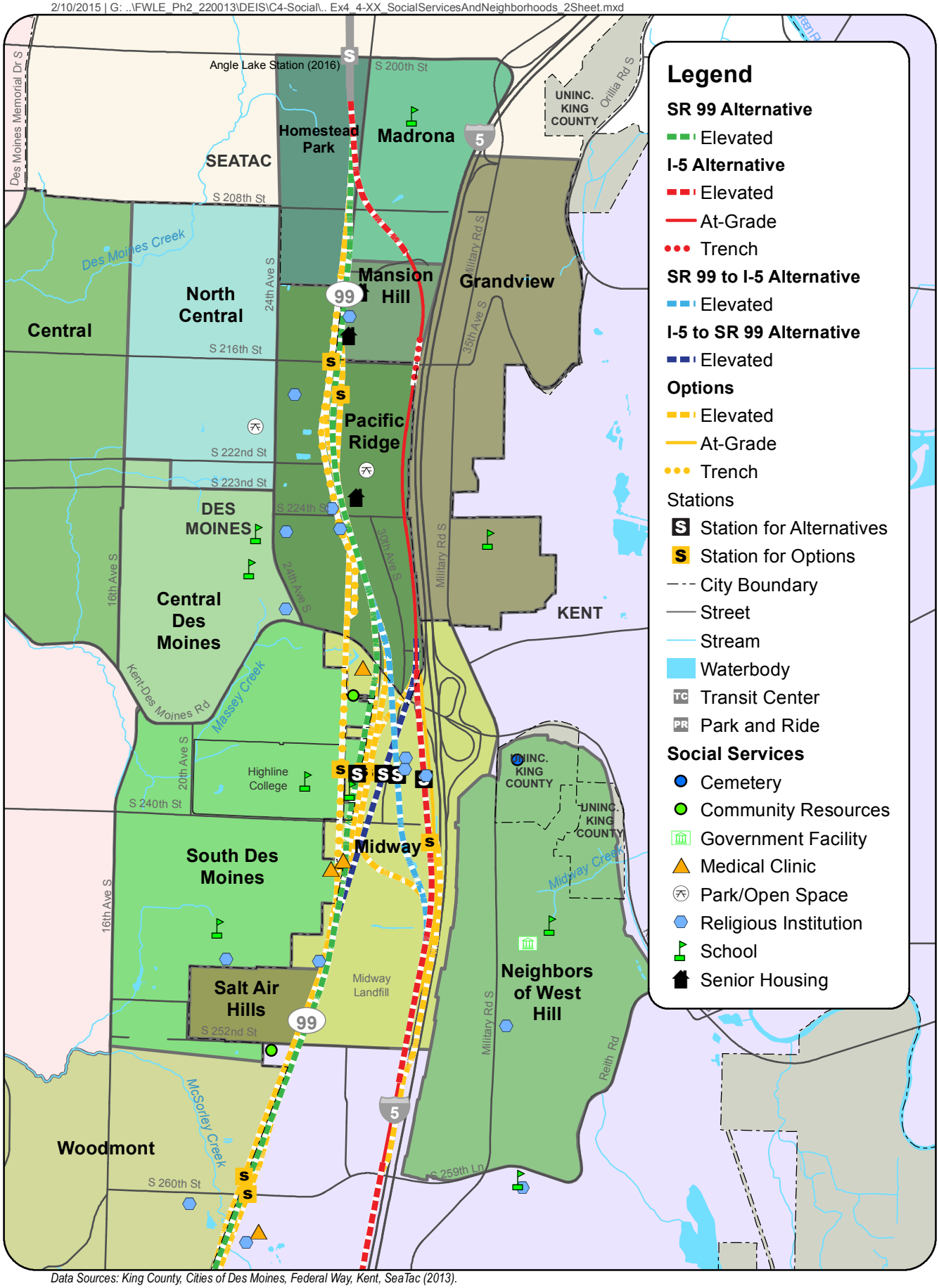
4.4.2 Introduction to Resources and Regulatory Requirements

This section evaluates how the FWLE could affect communities and neighborhoods in the study area. Consistent with guidance from the Federal Transit Administration (FTA), four key neighborhood and community issues are addressed: changes in neighborhood quality, barriers to social interaction, impacts on community resources, and impacts on safety and security.

Much of the analysis for this section reflects findings described in other sections and chapters, including Chapter 3, Transportation; Section 4.1, Acquisitions, Displacements, and Relocations; Section 4.2, Land Use; Section 4.3, Economics; Section 4.6, Air Quality and Greenhouse Gases; Section 4.7, Noise and Vibration; Section 4.14, Public Services; Section 4.17, Parkland and Open Space; and Chapter 7, Environmental Justice.

4.4.3 Affected Environment

The study area for social impacts, community facilities, and neighborhoods includes a ½-mile area around each FWLE alternative (Exhibits 4.4-1 and 4.4-2).



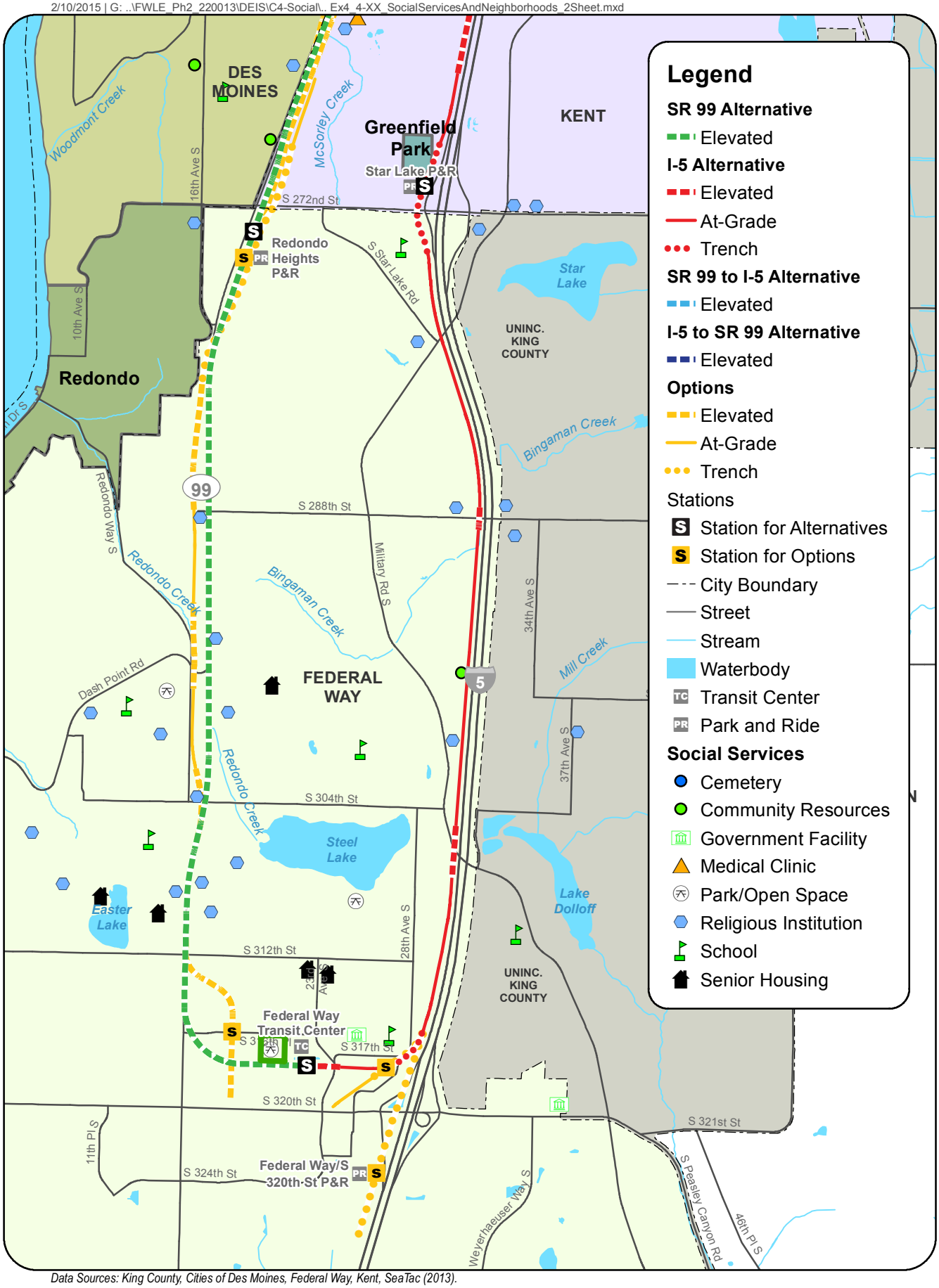
Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2013).

N

0 0.25 0.5 1 Miles

EXHIBIT 4.4-1
Social Services and Neighborhoods (North)

Federal Way Link Extension



Data Sources: King County, Cities of Des Moines, Federal Way, Kent, SeaTac (2013).

N

0 0.25 0.5 1 Miles

EXHIBIT 4.4-2
Social Services and Neighborhoods (South)

Federal Way Link Extension

Because of the proximity of the alternatives, there is some overlap in the ½-mile areas. The overall study area includes neighborhoods within SeaTac, Des Moines, Kent, Federal Way, and unincorporated King County. This section provides information on demographics and neighborhood characteristics, including location, development pattern, community resources, and accessibility. Exhibits 4.4-1 and 4.4-2 identify designated neighborhood boundaries located within the study area and the locations of community facilities, including parks, schools, religious institutions, social services, and public service facilities. Refer to Section 4.14, Public Services, Safety, and Security, for descriptions of public services including public and private schools, fire stations, police stations, and hospitals, and to Section 4.17, Parks and Recreational Resources, for information about and locations of parks within the study area.

4.4.3.1 Population Characteristics

Table 4.4-1 provides information on the demographics of the study area compared to the four cities in the study area and King County. The population within the study area is both ethnically and linguistically diverse, with larger concentrations of Korean, African (mostly Somali), and Hispanic populations than King County as a whole.

TABLE 4.4-1
Population Characteristics

	SR 99 Corridor	I-5 Corridor	SeaTac	Des Moines	Kent	Federal Way	King County
Total Population	52,034	58,108	26,909	29,673	92,411	89,306	1,931,2446
Population under 18 (%)	25.4	25.6	23.1	22.2	26.2	25.6	21.4
Population over 65 (%)	9.7	8.8	9.7	14.8	8.8	10.3	10.9
Minority (%)	55.6	56.1	60.5	43	50.3	48.4	27.1
Low-Income (%)	19.4	17.8	14.3	13.1	16.6	13.2	6.6
Median Household Income	$52,071	$57,295	$45,970	$59,577	$54,591	$54,856	$70,567
Households with No Vehicle (%)	10.5	7.4	8.2	6.6	7.6	8.1	9.1
Households with Limited English Proficiency (%)	9.6	11.0	11.0	5.9	9.7	7.6	5.1

Source: U.S. Census Bureau, 2010 and ACS, 2012.

Many residents in the SR 99 corridor are transit-dependent, and many in both the SR 99 and I-5 corridors are low-income, based on 2010 U.S. Census data. Chapter 7, Environmental Justice, provides more information on the minority and low-income populations, including Sound Transit's outreach efforts to these populations.

4.4.3.2 Study Area Characteristics

Both SR 99 and I-5 are major roadways that link the study area communities with the larger Puget Sound Region, but they also can be barriers to interaction within these communities because of their scale.

Community cohesion may be low in the study area because of the barriers to interaction, the lack of linkages between the smaller single-family subdivisions, and the frequent turnover that may occur in the larger apartment complexes. Many community resources for residents in the study area are located outside of the study area boundaries. Places for interaction include schools, libraries, community centers, religious facilities, and local retail shops. There are only a few parks within the study area where residents can interact.

SR 99 Corridor

SR 99 was the first roadway linking the region's primary economic centers of Seattle and Tacoma. Residential neighborhoods tend to consist of older established single-family housing primarily developed from the 1950s to the 1970s as suburbs for those who worked in Seattle or Tacoma. Other residential development in the study area includes a mixture of mobile home parks and both large- and small-scale multi-family complexes. With the construction of I-5 in the 1960s, regional traffic shifted to I-5, but SR 99 has remained a major arterial for the cities in the study area. In the last decade SR 99 has received high-occupancy vehicle/transit lanes, sidewalks, lighting, and landscaping, which has improved connections and accessibility along and across the roadway. Other roadways in the area have fewer sidewalks and are less pedestrian-friendly. The study area has few bicycle lanes and non-motorized trails. Many of the roadways within residential developments are cul-de-sacs, limiting connectivity. Although this development pattern limits interaction between neighborhoods or subdivisions, it also provides opportunities for interaction within specific residential developments. Mobile home parks and apartment complexes both experience limited interaction due to limited physical connectivity with other neighborhoods. Commercial development along SR 99 is a buffer from noise and traffic for residents farther east or west of the roadway, but also limits interaction between neighborhoods east and west. Some businesses that provide goods and services (e.g., grocery stores, clothing stores, automotive services, and hair salons) may provide

opportunities to interact for those residing in the study area. Some religious facilities are also located in the retail complexes.

I-5 Corridor

There are limited crossings of I-5 in the study area, which creates a barrier to interaction between the neighborhoods west and east of I-5. The I-5 study area is primarily residential, including single-family residences, multi-family housing, and mobile home parks that are adjacent to I-5. East of I-5 is primarily single-family residential developments and includes areas within unincorporated King County. Although I-5 is a barrier to interaction between areas west and east of the freeway, some local roadways provide access between neighborhoods. Similar to the SR 99 corridor, many of these roadways lack sidewalks and bike lanes. Community cohesion is more likely within the smaller developments rather than the larger neighborhoods.

4.4.3.3 Neighborhoods by Local Jurisdiction

Most neighborhood boundaries overlap the SR 99 and I-5 study areas. Federal Way does not have City-designated neighborhoods, so its residential areas are described in general.

City of SeaTac

The FWLE study area in SeaTac includes the Madrona, Homestead Park, and Mansion Hill neighborhoods west of I-5, and the Grandview neighborhood east of I-5 (Exhibit 4.4-1). The Homestead Park neighborhood consists mostly of commercial development and a large vacant area that formerly contained a number of smaller mobile home parks that were relocated by the Port of Seattle as mitigation for noise from Sea-Tac International Airport. Although some residential areas remain, the neighborhood lacks opportunities for interaction. Madrona includes single-family residences and apartment complexes as well as Madrona Elementary School, which provides opportunities for interaction. Mansion Hill consists primarily of single-family homes and includes some vacant property along the neighborhood edge that has been acquired by Washington State Department of Transportation (WSDOT) for the proposed SR 509 extension. As an older, established neighborhood, there is likely some cohesion within this neighborhood. The Grandview neighborhood consists mostly of single-family residences and includes a school and dog park that provide opportunities for interaction.

City of Des Moines

Des Moines has six neighborhoods within the study area (from north to south): North Central, Pacific Ridge, Central Des Moines, South Des Moines, Woodmont, and Redondo (Exhibit 4.4-1). The North Central neighborhood within the study area consists primarily of vacant land that was acquired by the Port of Seattle as mitigation for noise impacts associated with Seattle-Tacoma International Airport, and which is planned for redevelopment as the Des Moines Creek Business Park. There are a few residences, a large park, a post office, and religious facilities in this neighborhood.

The Pacific Ridge neighborhood is bisected by SR 99, with the majority of residential development located between SR 99 and I-5. Residential development includes a mixture of single-family houses, mobile home parks, and multi-family complexes. Many of the housing units are in multi-family complexes, which may reduce overall community cohesion in the neighborhood. Opportunities for interaction include Midway Park and religious facilities located along SR 99.

The Central Des Moines neighborhood within the study area includes mostly single-family residential developments and Midway Elementary School, Pacific Middle School, and Mt. Rainier High School. Opportunities for interaction within the neighborhood include the schools, a public swimming pool located at the high school, and religious institutions.

The South Des Moines neighborhood includes primarily single-family and multi-family residential developments, along with Highline College (HC) and some commercial development adjacent to SR 99. Highline College is one of the larger community colleges in Washington and includes branches of Central Washington University and Heritage University, and a preschool/Head Start early learning center. It offers a number of resources for the general public and provides opportunities for interaction. Other opportunities for interaction are located at Parkside Elementary School and Parkside Park.

The Woodmont and Redondo neighborhoods are primarily single-family residential neighborhoods, with community facilities including Woodmont Elementary School, Woodmont Library, and religious institutions. Cohesion is likely highest within single-family residential developments, although the community facilities within these

neighborhoods also provide opportunities for interaction. The Redondo neighborhood is located solely within the study area for SR 99.

City of Kent

Kent neighborhoods within the study area include Midway, West Hill, Saltair Hills, and Greenfield Park (Exhibits 4.4-1 and -2). The Midway neighborhood is not a City-recognized neighborhood, but the adopted *Midway Subarea Plan* (City of Kent, 2011) is intended to support development of a mixed-use neighborhood primarily between SR 99 on the west, I-5 on the east, Kent-Des Moines Road on the north and S 240th Street on the south. This area includes commercial uses and one community resource, a post office. Residential development is primarily mobile home parks and small apartment complexes. Opportunities for interaction among residents in the Midway neighborhood are low because of the few and disconnected residential areas, lack of community resources, and the commercial nature of the neighborhood.

The West Hill neighborhood is located east of I-5 and between Kent-Des Moines Road and S 259th Place and is predominantly single-family residential. Community facilities within the study area include Sunnycrest Elementary School, religious institutions, and a small neighborhood park, which provide opportunities for interaction.

The Saltair Hills neighborhood is primarily a single-family residential neighborhood located west of SR 99. Although there are no community facilities, the neighborhood has a central message board/kiosk, which contributes to cohesion. A retail complex along SR 99 includes a number of Hispanic businesses that provide interaction opportunities for this population.

The Greenfield Park Neighborhood is a small single-family development located north of the Star Lake Park-and-Ride. This neighborhood is isolated and has no community facilities, but its neighborhood council likely provides some cohesion and opportunities for interaction. Other residences adjacent to the Greenfield Park are not associated with the neighborhood.

City of Federal Way

The City of Federal Way does not have any designated neighborhoods; however, the residential areas within the study area include single-family and multi-family developments that likely have cohesion within each residential development. A number of

community facilities within this study area, including religious institutions, schools, neighborhood parks, and the larger Steel Lake Park, provide an opportunity for residents from the surrounding neighborhood to interact and create a sense of community cohesion.

4.4.4 Environmental Impacts

This section describes the potential beneficial and adverse impacts on social and community facilities within the study area, consistent with FHWA's publication *Community Impact Assessment: A Quick Reference for Transportation* (FHWA, 1996). The analysis includes the effects on community cohesion, neighborhood quality, barriers to social interaction, community facilities, and safety based on factors including property acquisitions and land use changes, visual or physical intrusion, changes in transportation and parking, and noise and vibration. This section also summarizes the project's indirect impacts.

4.4.4.1 No Build Alternative

The No Build Alternative would have no property impacts associated with light rail operation. Neighborhoods and communities would be likely to develop according to adopted plans, dependent upon economic conditions within the corridor. Residents of the neighborhoods and those who travel in or through the study area would not receive a more reliable mode of transportation and increased transit accessibility. Additional congestion associated with the No Build Alternative could affect the cohesiveness and could have adverse air quality and noise impacts on some neighborhoods and communities within the study area.

4.4.4.2 Build Alternatives

Direct Impacts

Impacts Common to All Alternatives

The FWLE could positively affect neighborhood quality by improving transportation access, reliability, and linkages to the surrounding region. Neighborhoods (particularly those near the light rail stations) may experience increased vitality in terms of improved access, residential infill, employment growth, and greater patronage of local businesses. The development of stations could enhance community cohesion by creating new meeting points for the surrounding neighborhoods. Pedestrian and bicycle mobility would be maintained as the alternatives are grade-separated and do not bisect any non-motorized connections, and the project would improve non-motorized access to regional transit. Refer to Chapter 3,

Transportation, for more information. FWLE improvements would meet the Americans with Disabilities Act requirements to ensure those with disabilities have access to the station areas.

The FWLE would acquire property, introduce a new source of noise, and change the visual character along the edges of neighborhoods. The overall character of the neighborhoods is not likely to change because Sound Transit would mitigate these impacts. The FWLE would not create new barriers to interaction because the alternatives are generally adjacent to SR 99 or I-5, which already act as neighborhood boundaries. Acquisitions that remove some but not all multi-family units or displace all residents within individual mobile home parks would affect cohesion within those developments. There would be changes to residences directly adjacent to the FWLE as a result of removed residential units and mature vegetation. Noise mitigation such as freestanding sound walls would also affect the visual character along the edge of adjacent neighborhoods.

Portions of properties acquired in the station areas that are not permanently needed for FWLE facilities could be redeveloped consistent with local zoning. While the displacements would be disruptive, none of the displacements would bisect or segment neighborhoods or change their overall character..

For all residential acquisitions, Sound Transit would try to help residents relocate in the same area in order to minimize impacts on their quality of life. This includes identifying replacement housing that considers such factors as proximity to commercial and community facilities, schools (if applicable), places of employment, and accessibility to transit if residents are transit-dependent.

The FWLE could displace some businesses that provide services to area residents (such as an ethnic grocery store) that are unique to the region, but due to the large minority populations in the study area similar businesses in the area are common and easily accessible to area residents. There are suitable opportunities for both business and residential relocation in the study area, but friends and neighbors in individual developments or neighborhoods could be affected by increased distance.

All of the FWLE alternatives would require the acquisition of one or more mobile home parks in the Midway neighborhood, which contains four mobile home parks. Mobile home parks that would be

acquired are owned by individuals or businesses, and park residents either rent their unit or own their unit and rent the lot. The mobile home parks in the Midway neighborhood range from 18 to 34 units and lack community facilities (e.g., outdoor spaces and playgrounds), which may limit interaction within the mobile home parks. They are located in areas without nearby community facilities and with nonresidential adjacent land uses related to automotive, warehouses/distribution, and offices, which limit opportunities to interact with others in the larger neighborhood. These factors may affect the sense of community in the Midway neighborhood compared to other neighborhoods in the study area that are entirely or predominantly residential, and thus lessen the impact of these displacements on the cohesiveness of the overall Midway neighborhood. Parts of other mobile home parks could also be acquired by some station options, as described below under the station option impacts.

The FWLE would operate on an exclusive guideway, and local access would be maintained under or over the guideway. There could be access changes or restrictions to adjacent properties as a result of the station configurations. The expansion of existing parking or construction of new parking lots or garages could affect traffic operations on adjacent roadways; however, impacts would be mitigated to No Build conditions. The potential for hide-and-ride parking exists (when transit users park in neighborhoods near transit stations), but in most areas the residential development is located far enough away from the stations that hide-and-ride parking would not likely be an issue.

The FWLE is anticipated to complement local bus service. As described in Chapter 3, Transportation, all but two transit routes are assumed to provide service in 2035, and other routes could be modified to provide more frequent service to better serve the study area and provide direct connections to light rail stations.

As described in Section 4.14, Public Services, Safety, and Security, crime around stations generally reflects the crime rates in the surrounding neighborhoods and the project would not increase crime rates. Sound Transit would also employ measures to minimize crime at the stations; therefore, safety and security impacts on adjacent neighborhoods are not anticipated.

Impacts by Alternative

SR 99 Alternative

The SR 99 Alternative would displace the fewest residences but the most businesses. While the effect on residential neighborhoods is limited, the alternative would displace businesses patronized by specific neighborhoods. There are suitable locations in the study area for business relocation, which would minimize this impact. The SR 99 Alternative would displace leased administrative offices at Highline College, but these offices would likely be relocated nearby. Visual changes along SR 99 would not affect adjacent neighborhood quality. Additional impacts associated with various station options are discussed below, except for the Federal Way SR 99 Station Option, where there would be no additional impacts.

S 216th Station Options

The potential additional station at S 216th Street (West option) would displace more businesses and be located close to residential development west of SR 99, but would not result in any additional neighborhood or community impacts. The East option would displace 26 units within a mobile home park south of S 216th Street and east of SR 99 that is for sale as of 2015]. This mobile home park has 75 units and a laundry facility. The potential additional station would not increase local traffic because parking is not provided at this station. Riders who use this station would be dropped off or picked up only, would transfer from the King County Metro Transit RapidRide A Line bus, or would use nonmotorized transportation such as walking or biking.

Kent/Des Moines Station Options

The Kent/Des Moines HC Campus Station Option would displace single-family residences south of Kent-Des Moines Road as well as a mobile home park in the Midway neighborhood. This option would result in visual impacts at residences adjacent to the alignment. Although this option would not create any social barriers because it would be located on the edge of the single-family neighborhood and behind the apartments that are currently adjacent to commercial uses, the loss of single-family residences in a cohesive neighborhood would have a greater effect on the neighborhood than the other Kent/Des Moines station options that would be located in more commercially developed areas with less neighborhood cohesion. The Kent/Des Moines HC Campus Station Option from S 216th West

Station Option would displace 4 additional mobile homes from a 20-unit mobile home park located north of Kent-Des Moines Road. This mobile home park is adjacent to commercial development on three sides and an apartment building, and is not part of a larger neighborhood.

The HC Campus Station Option would displace the Sea-Mar Community Health Center, which is a neighborhood and social amenity that serves both low-income and minority populations, with a focus on Hispanic populations. This facility could likely be relocated within the same general area in order to provide these services to the same population. If the HC Campus Station Option were combined with the S 216th West Station Option, it would also displace the Citadel Church and the Open Door Baptist Church. Both churches could probably relocate in the area.

The Kent/Des Moines SR 99 East Station Option would displace two mobile home parks. One of these parks consists primarily of motorhome recreational vehicles, which may be easier to relocate than the older mobile homes located at the other mobile home park. The Kent/Des Moines SR 99 Median Station Option would avoid impacts on the Sea Mar Community Health Center.

S 260th Station Options

The alignment for the potential additional station at S 260th Street (West option) would displace the Sea Mar Community Health Center described above, along with the Seattle Full Gospel Church and the Iglesia Cristiana Pentecostes Filidelphia. Relocation opportunities for all of these facilities are expected to be available in the study area. The East option would not result in any additional impacts.

S 272nd Redondo Trench Station Option

Relative to the SR 99 Alternative, the S 272nd Redondo Trench Station Option would be closer to single-family and multi-family residential developments west of SR 99 and would have visual quality impacts for residents north and south of Dash Point Road due to the proximity combined with vegetation removal. South of Dash Point Road, the alignment would be closer to Sacajawea Middle School and Park and Federal Way High School but would not result in additional impacts on these facilities. This alignment would not create any new barriers for residents adjacent to the alignment, and does not bisect any neighborhoods.

I-5 Alternative

The I-5 Alternative would be mostly within the WSDOT right-of-way and would not result in any new barriers because the alternative directly parallels I-5, which is already a barrier to access between neighborhoods. It would displace the most residences, mostly in multi-family buildings in the Pacific Ridge neighborhood, north of Kent-Des Moines Road where the alignment would be outside of WSDOT right-of-way. There are relocation opportunities in the study area. These displacements would not result in any impacts on the overall neighborhood quality because they would occur along the edge of the Pacific Ridge neighborhood. However, residences adjacent to the alignment would realize a change because of the removal of the adjacent residential buildings. The I-5 Alternative also requires the acquisition of two mobile home parks in the Midway neighborhood. Additionally, one mobile home would also be displaced on the eastern edge of the Camelot Square Mobile Home Park, south of S 288th Street. This mobile home park has approximately 400 units, a clubhouse, and an outdoor pool.

The I-5 Alternative would result in the fewest number of business displacements and it is not anticipated to affect any community facilities. There would be some visual changes on the edges of neighborhoods adjacent to I-5 where buildings and/or mature vegetation would be removed, but these impacts are not expected to affect neighborhood quality. Impacts from the Kent/Des Moines station options are discussed below. There would be no additional impacts from the Landfill Median Alignment Option or the Federal Way City Center station options.

Kent/Des Moines Station Options

The Kent/Des Moines At-Grade Station Option would not result in any additional impacts, and would have fewer residential displacements because the station would be located south of S 240th Street, thus avoiding impacts on some multi-family residences and both mobile home parks. The Kent/Des Moines SR 99 East Station Option would result in greater multi-family residential displacements than the I-5 Alternative. It would still involve the acquisition of two mobile home parks in the Midway neighborhood, although they would be different ones than the I-5 Alternative.

Federal Way City Center Station Options

The Federal Way I-5 Station Option would not have any additional neighborhood or community impacts, but the S 320th Park-and-Ride would displace 20 mobile homes on the east edge of the Belmor Park Golf & Country Club Manufactured Home Community. This mobile home park is a gated 55-and-up retirement community with approximately 300 units and several community amenities, including a golf course, indoor pool, library, exercise facility, and craft room.

SR 99 to I-5 Alternative

The SR 99 to I-5 Alternative would have similar impacts as the SR 99 Alternative north of Kent/Des Moines Road and the same as the I-5 Alternative south of S 240th Street. The Kent/Des Moines Station for this alternative would be located in the center of the Midway neighborhood. Residential displacements would include multi-family residences and two mobile home parks in the Midway area. Impacts for the station options that are associated with this alternative would be similar to those described for the I-5 Alternative.

I-5 to SR 99 Alternative

The I-5 to SR 99 Alternative would have similar impacts as the I-5 Alternative north of Kent/Des Moines Road and the same as the SR 99 Alternative south of S 240th Street. The Kent/Des Moines station for this alternative would be located in the center of the future Midway neighborhood, but would not affect any existing neighborhoods. Residential displacements unique to this alternative would be multi-family residences and two mobile home parks. Impacts for the station options that are associated with this alternative would be similar to those described for the SR 99 Alternative, except that the S 260th West Station Option would avoid the SeaMar Community Health Center because the guideway alignment would still be traveling west to SR 99 from I-5 in this location.

Indirect Impacts

The FWLE could have indirect effects on community cohesion and neighborhood quality. Station area improvements could provide new meeting places for nearby residents and employees, improving community cohesion.

The increased transportation options could make the neighborhoods adjacent to the light rail stations more attractive for commercial and residential redevelopment and for transit-oriented development

(TOD). Increased transit access and the potential for TOD could enhance walkability and safety of the neighborhoods. Refer to Section 4.2, Land Use, for information on TOD and applicable goals and policies.

Potential redevelopment in the station areas could also promote economic activity by expanding neighborhood business districts and could increase property values (refer to Section 4.3, Economics, for information on potential economic benefits). As a result, there is potential for increased property taxes in the station areas as property values increase with new development and as other properties are redeveloped. Increased property values could result in higher rents, and increases in property taxes could have a negative effect on existing home owners. Jurisdictions along the FWLE corridor have adopted goals and policies in their comprehensive plans related to the provision of affordable housing options. Sound Transit also has adopted a TOD Policy that includes goals for providing affordable housing in station areas.

4.4.5 Potential Mitigation Measures

Sound Transit would incorporate measures to minimize the impacts on neighborhood quality, social interaction, and safety and security. The FWLE would provide a net benefit to neighborhood quality during operation; therefore, no mitigation would be necessary beyond the mitigation described in other sections of this Draft EIS.