Summary

Summary

Purpose of the Proposed Action

The Federal Highway Administration (FHWA), the Washington State Department of Transportation (WSDOT), the Port of Seattle, King County, and the Cities of Des Moines and SeaTac propose to improve regional highway connections with an extension of State Route (SR) 509 to serve future transportation needs in southwest King County and to enhance southern access to and from Seattle- Tacoma International Airport (Sea-Tac Airport). (Figure S-1 shows the location of the project area within the larger metropolitan area and Figure S-2 shows the detail of the project area.)

Description of the Proposed Action

The proposed action would extend the SR 509 freeway from its current terminus at South 188th Street /12th Place South to a new interchange with Interstate 5 (I-5) in the vicinity of South 210th Street. To accommodate this interchange, improvements to I-5 between approximately South 210th Street and South 310th Street are also proposed. The SR 509: Corridor Completion/I-5/South Access Road Project would improve regional highway connections, enhance southern access to and from Sea-Tac Airport, and improve related local traffic circulation patterns.

Three build alternatives (Alternatives B, C2, and C3) and a No Action Alternative (Alternative A) are considered in this Revised Draft Environmental Impact Statement (DEIS).

Alternative A (No Action)

The No Action Alternative (Figure S-3) represents the baseline conditions assumed to exist in the future regardless of whether or not the proposed project is constructed. Under the No Action Alternative, the SR 509 freeway extension, the South Access Road to Sea-Tac Airport, and the improvements to I-5 would not be built. This alternative, as well as the other alternatives, is defined in Chapter 2.

Features Common to All Build Alternatives

Each alternative for the SR 509 freeway extension would originate at approximately South 188th Street/12th Place South. The northern terminus of the South Access Road would be at the south end of the airport terminal drives. The southern terminus of the South Access Road would connect with

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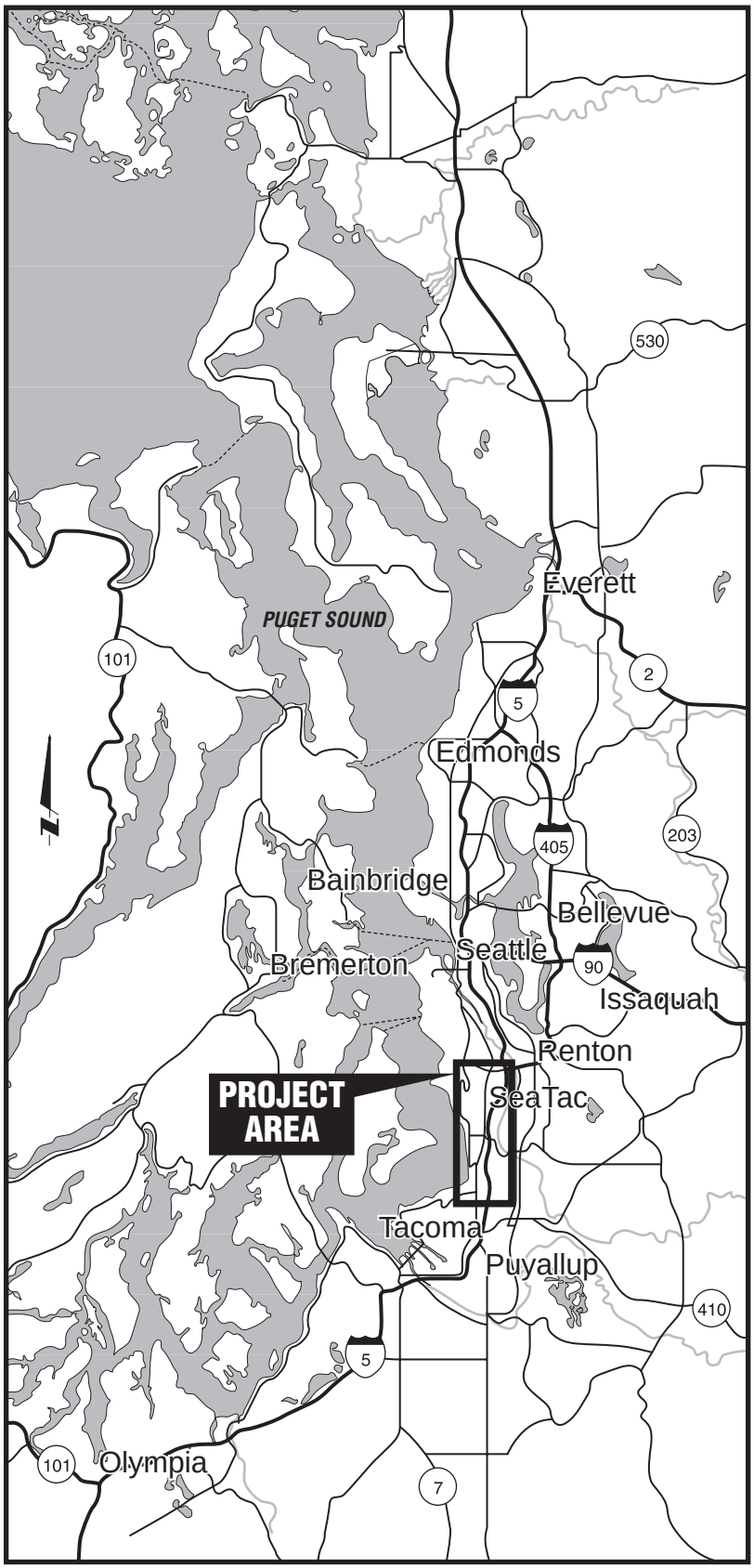

141012.AB.H1.03_T082001026SEA / SR 509 DEIS / Summary figures / ProjectAreaLocationMap / CJS / 12-21-01 / LW/gr

FIGURE S-1

Project Area Location Map

SR 509: Corridor Completion/
I-5/South Access Road
Environmental Impact Statement

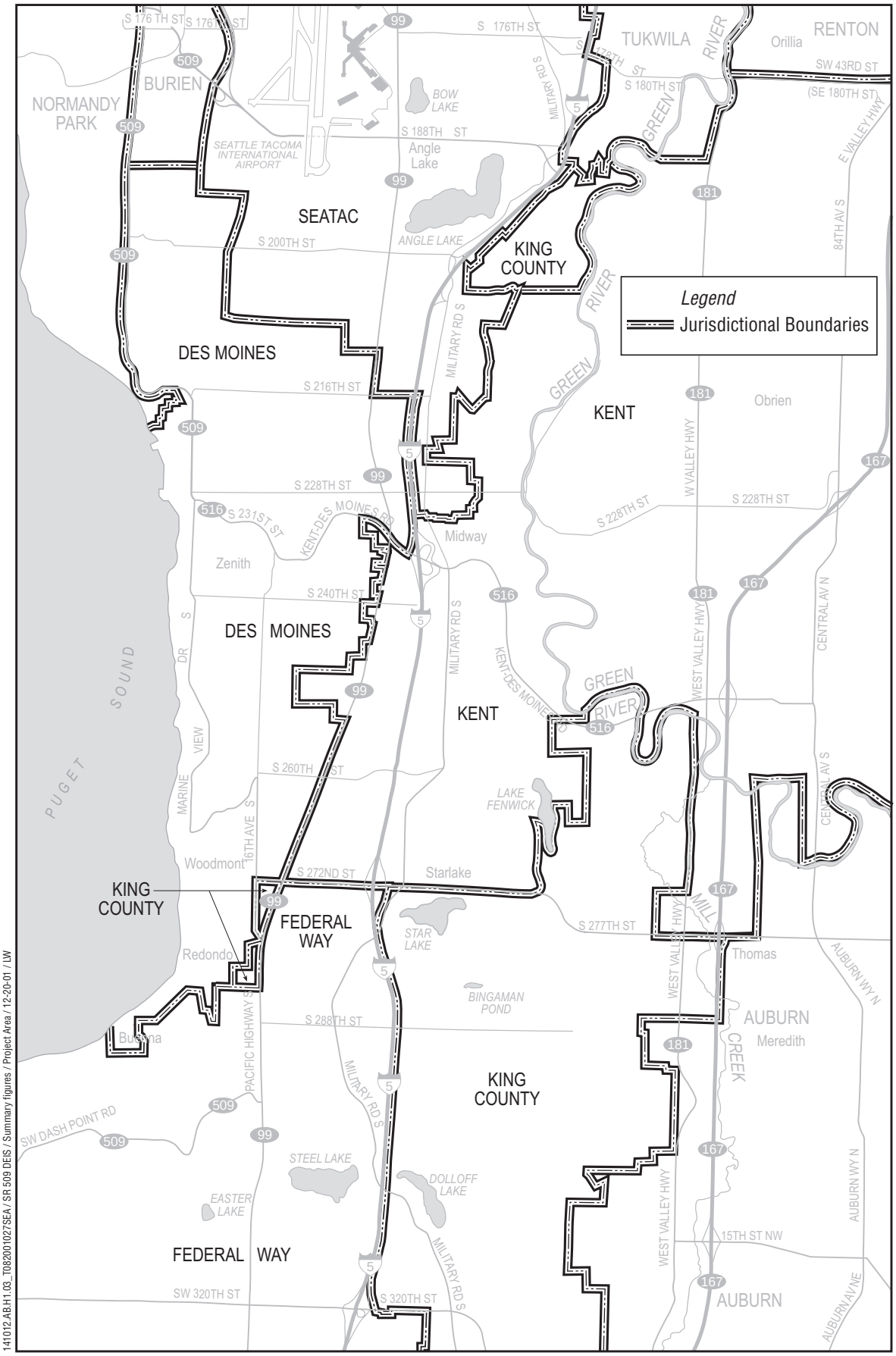

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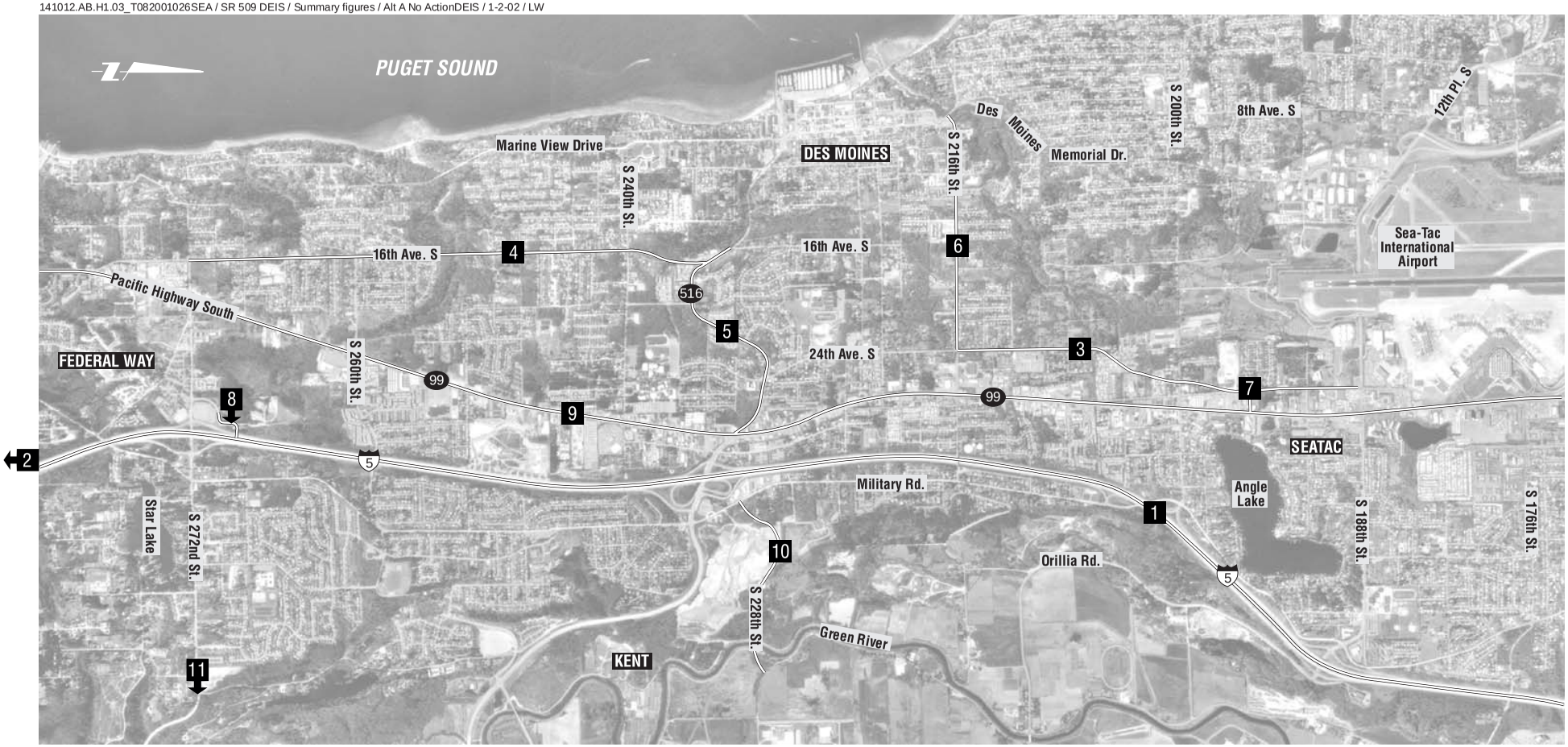
FIGURE S-2

Project Area

SR 509: Corridor Completion/I-5/South Access Road
Environmental Impact Statement

141012.AB.H1.03_T082001026SEA / SR 509 DEIS / Summary figures / Alt A No ActionDEIS / 1-2-02 / LW



Legend

Baseline Projects by others

0 1/4 1/2 3/4 1 MILES

Baseline Projects Assumed for No Action Alternative.

1. I-5 HOV Lanes
2. I-5 @ S. 317th Street Direct Access Ramp
3. 28th/24th Avenue S. Arterial (Phase 1 completed – S. 188th to S. 204th Streets)
4. 16th Avenue S.
5. Kent-Des Moines (SR 516) Road
6. S. 216th Street
7. S. 195th Street
8. I-5 @ S. 272nd Street In-Line Station
9. Pacific Highway S./International Boulevard (SR 99) (Phases 1 and 2 completed – S. 170th to S. 200th Streets)
10. S. 228th Street
11. S. 272nd/S. 277th Street Corridor

FIGURE S-3

Alternative A (No Action)

SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement

the SR 509 freeway extension; the location and design of this connection would vary with each alternative. Improvements to I-5 would be the same for all build alternatives.

SR 509 Mainline/South Access Road

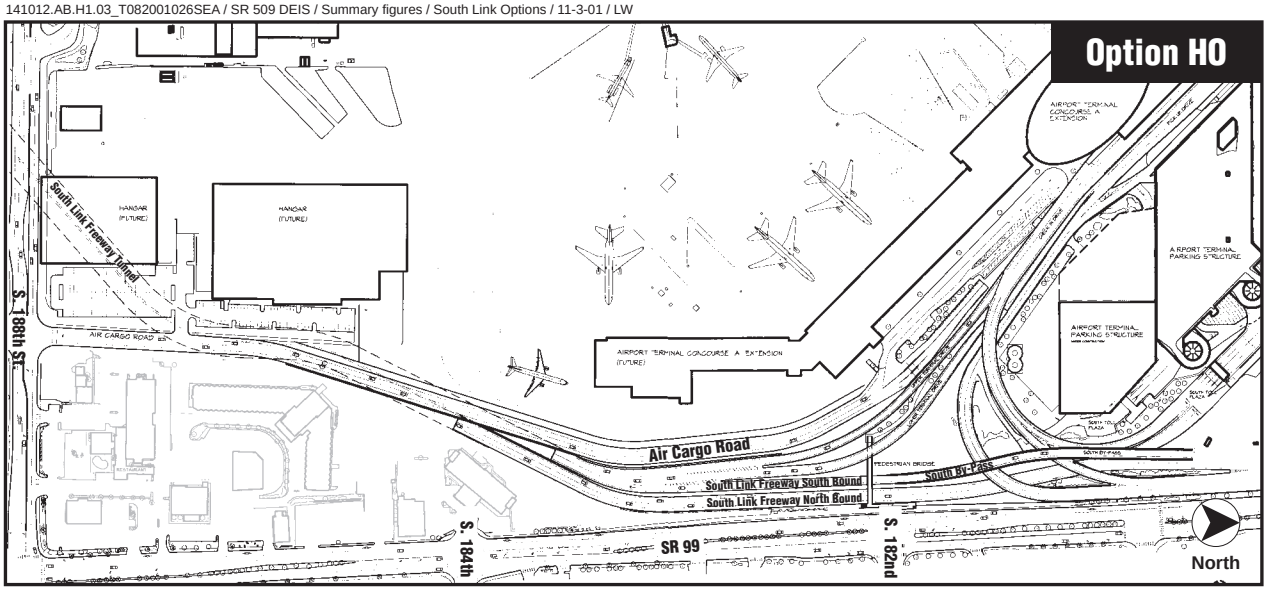
The configuration of the SR 509 freeway extension would be six lanes: two general purpose travel lanes and an inside high-occupancy vehicle (HOV) lane in each direction. The South Access Road would consist of two general purpose lanes in each direction, for a total of four lanes. In general, right-of-way widths would be at least 200 feet for the SR 509 freeway extension and at least 120 feet for the South Access Road. The SR 509 freeway extension would be designed to level of service (LOS) D and a speed of 70 miles per hour (mph). The South Access Road would be designed to LOS D and a speed of 35 to 45 mph.

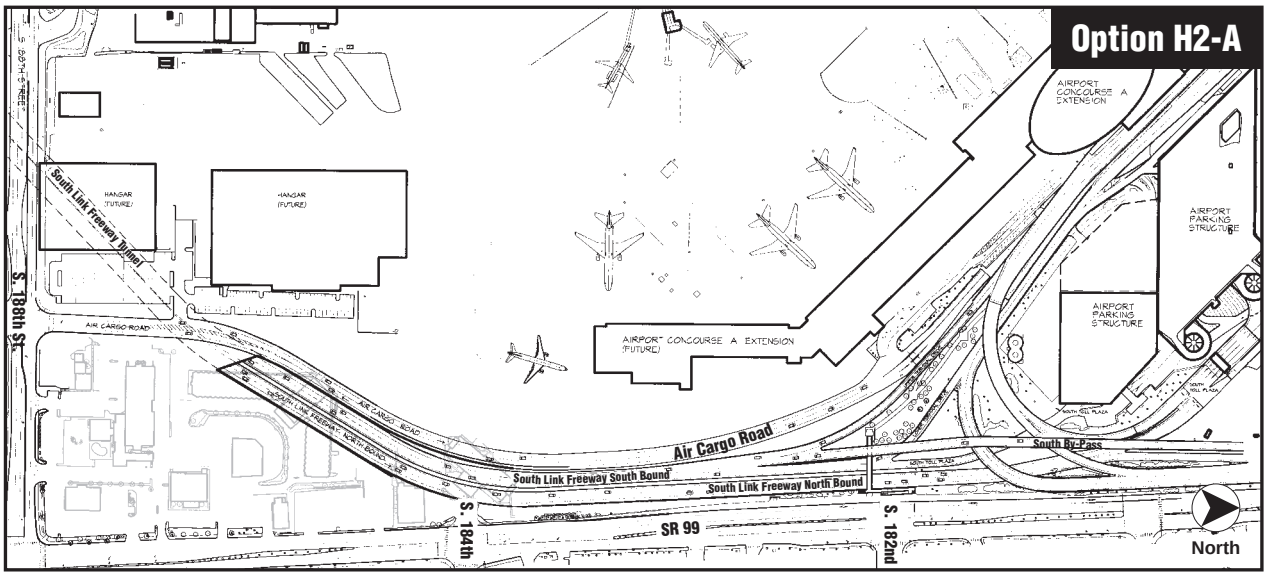
South Airport Link

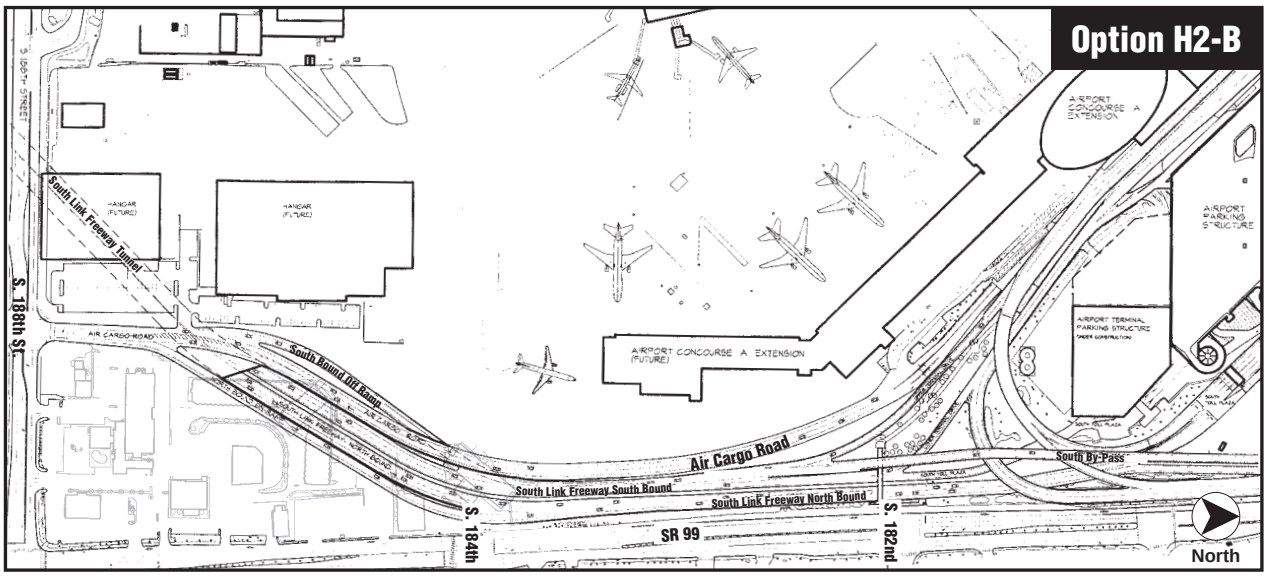
The South Airport Link, the last 1,000 feet of roadway connecting the South Access Road to the existing airport roadways, has three design options. At the south end, each design option crosses beneath South 188th Street and the southeast corner of Sea-Tac Airport via a tunnel. At the north end, the design options would maintain both southbound and northbound connections from the upper and lower terminal drives. Under Design Option H0, Air Cargo Road and the South Access Road would be "stacked" via an extended “S”-curve tunnel structure (Figure S-4). Under Design Option H2-A, Air Cargo Road and the South Access Road would generally parallel each other and would be separated by medians (Figure S-4). Design Option H2-B would be essentially the same as Design Option H2-A, except that it would provide local access routes for northbound and southbound traffic at the intersection of South 188th Street and 28th Avenue South (Figure S-4).

Improvements to I-5

The southbound improvements to I-5 would include two new collector-distributor (C/D) lanes between the SR 509 convergence and SR 516, two new auxiliary lanes from SR 516 to South 272nd Street, and a new auxiliary lane from South 272nd Street to approximately South 310th Street, where the proposed project would match with an auxiliary lane to be constructed for the Sound Transit I-5 @ South 317th Street Direct Access Ramp project. On northbound I-5, a new auxiliary lane would extend between South 272nd Street and the SR 516 interchanges, and two new C/D lanes would start at the SR 516 interchange to serve I-5 traffic exiting to SR 509 and SR 516 traffic entering I-5. In addition, a South 228th Street extension and underpass would be constructed, providing a direct connection to northbound I-5 from South 228th Street and from southbound I-5 to South 228th Street. Figure S-5







0 100 200
Approx.
Scale in Feet

FIGURE S-4
South Airport Link Design Options

SR 509: Corridor Completion/I-5/South Access Road
Environmental Impact Statement

141012.AB.H1.03_T082001026SEA / SR 509 DEIS / Summary figures / Schematic Drawing of I-5 Improvements / 12-21-01 / LW

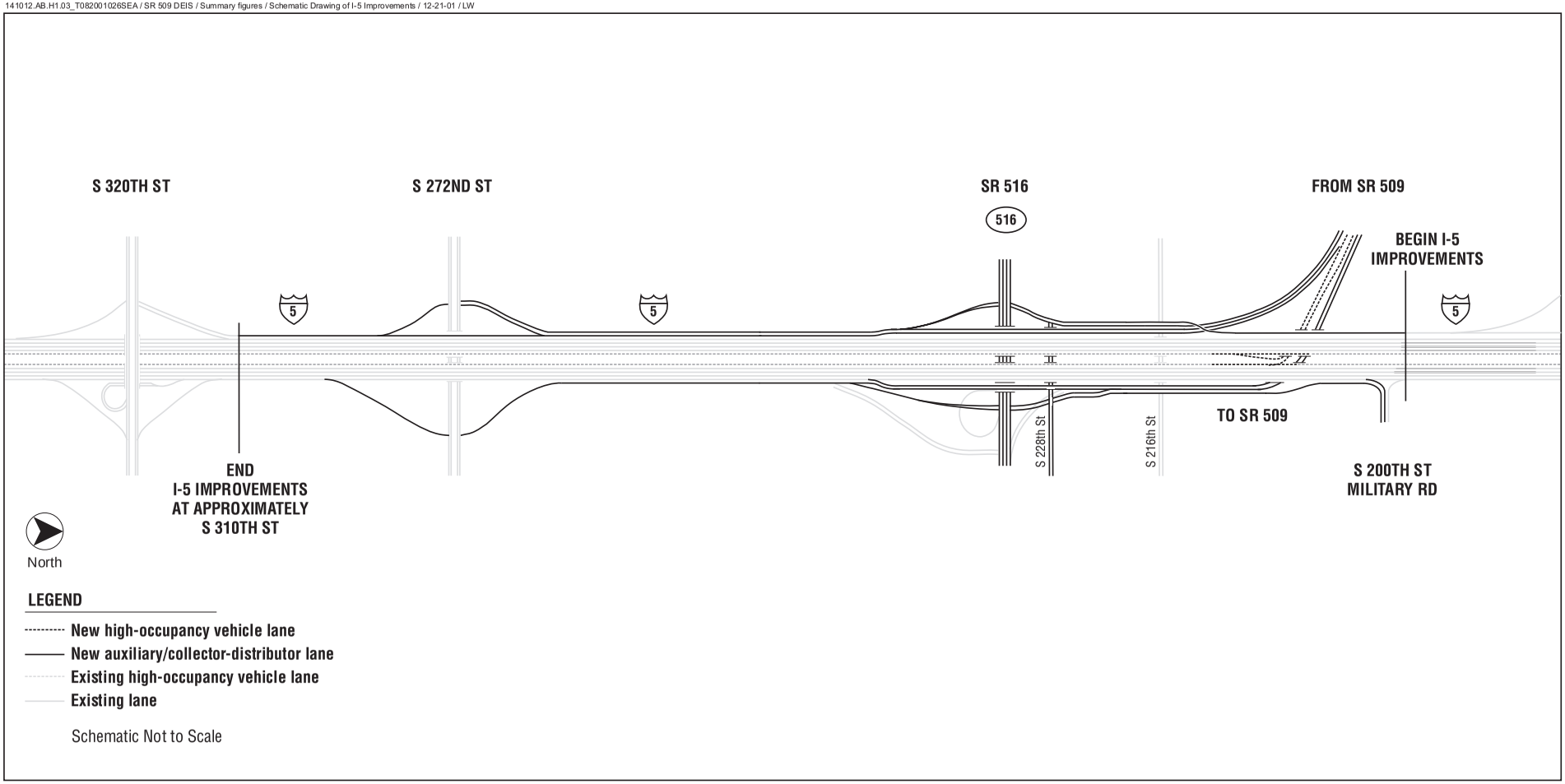


FIGURE S-5

Schematic Drawing of I-5 Improvements

SR 509: Corridor Completion/I-5/South Access Road
Environmental Impact Statement

presents a schematic of the I-5 improvements. These improvements would cover approximately 6.7 miles.

Alternative B

Under Alternative B, the SR 509 mainline would extend southward from its existing terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 211th Street (Figure S-6). The freeway extension and the South Access Road would generally parallel each other in a north-south orientation on the west and east sides of Des Moines Creek Park, starting in the vicinity of South 208th Street and 24th Avenue South. The alignment would cross over Des Moines Creek and pass through Des Moines Creek Park at its narrowest point. The length of the SR 509 freeway extension under Alternative B would be approximately 3.8 miles.

Alternative C2

Alternative C2, the Preliminary Preferred Alternative, would begin at the existing SR 509 terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 212th Street (Figure S-7). Alternative C2 would cross to the east on the north side of Des Moines Creek Park. The alignment would be elevated as it crosses the northeast corner of Des Moines Creek Park. The South Access Road interchange with SR 509 would be in the vicinity of South 208th Street and 24th Avenue South. The length of Alternative C2 would be approximately 3.2 miles.

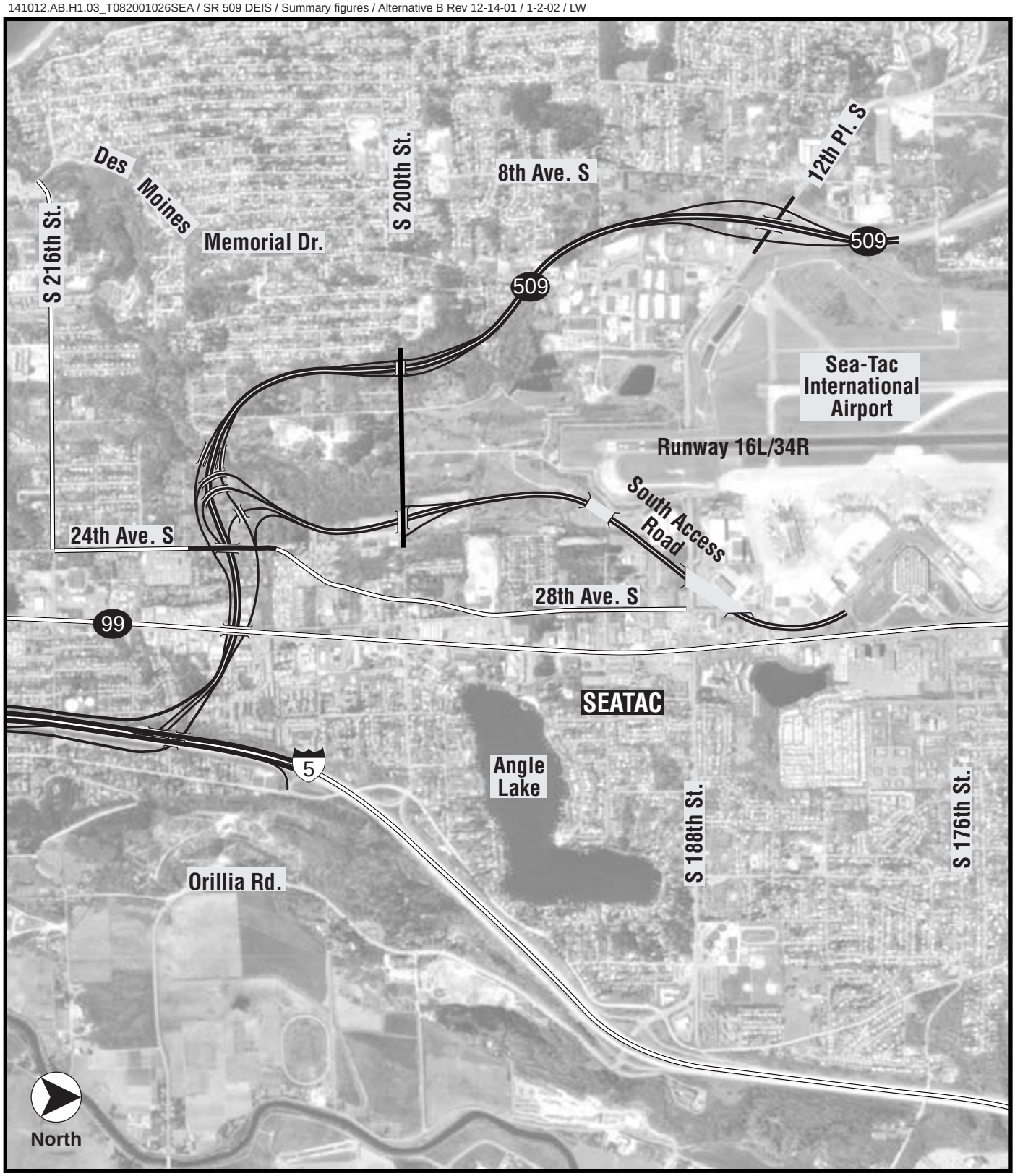
Alternative C3

Alternative C3 would begin at the existing SR 509 terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 212th Street (Figure S-8). Like Alternative C2, Alternative C3 would cross to the east on the north side of Des Moines Creek Park; however, it would encroach further into the park than Alternative C2. Alternative C3 would also be elevated as it crosses the northeast corner of Des Moines Creek Park. The South Access Road interchange would occur in the vicinity of South 204th Street and 24th Avenue South. Under Alternative C3, the length of the SR 509 extension would be approximately 3.5 miles.

Related Actions

Related actions proposed by other government agencies include the following:

- Development of the South Aviation Support Area (SASA) for Sea-Tac Airport
- Construction of the third runway at Sea-Tac Airport



0 1/4 1/2 3/4 1 MILES

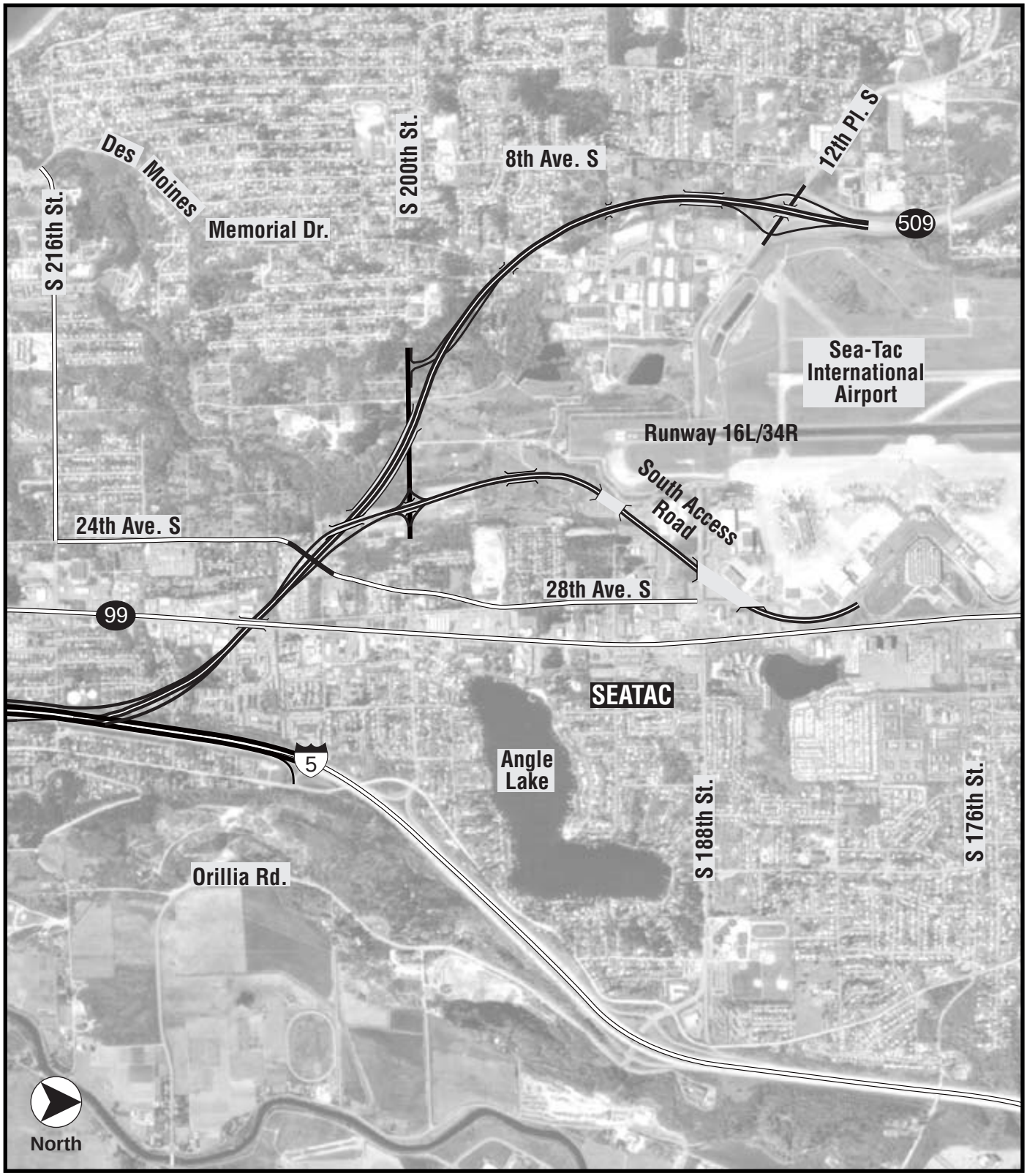
Legend

SR 509/South Access Improvements

FIGURE S-6

Alternative B

SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement



0 1/4 1/2 3/4 1 MILES

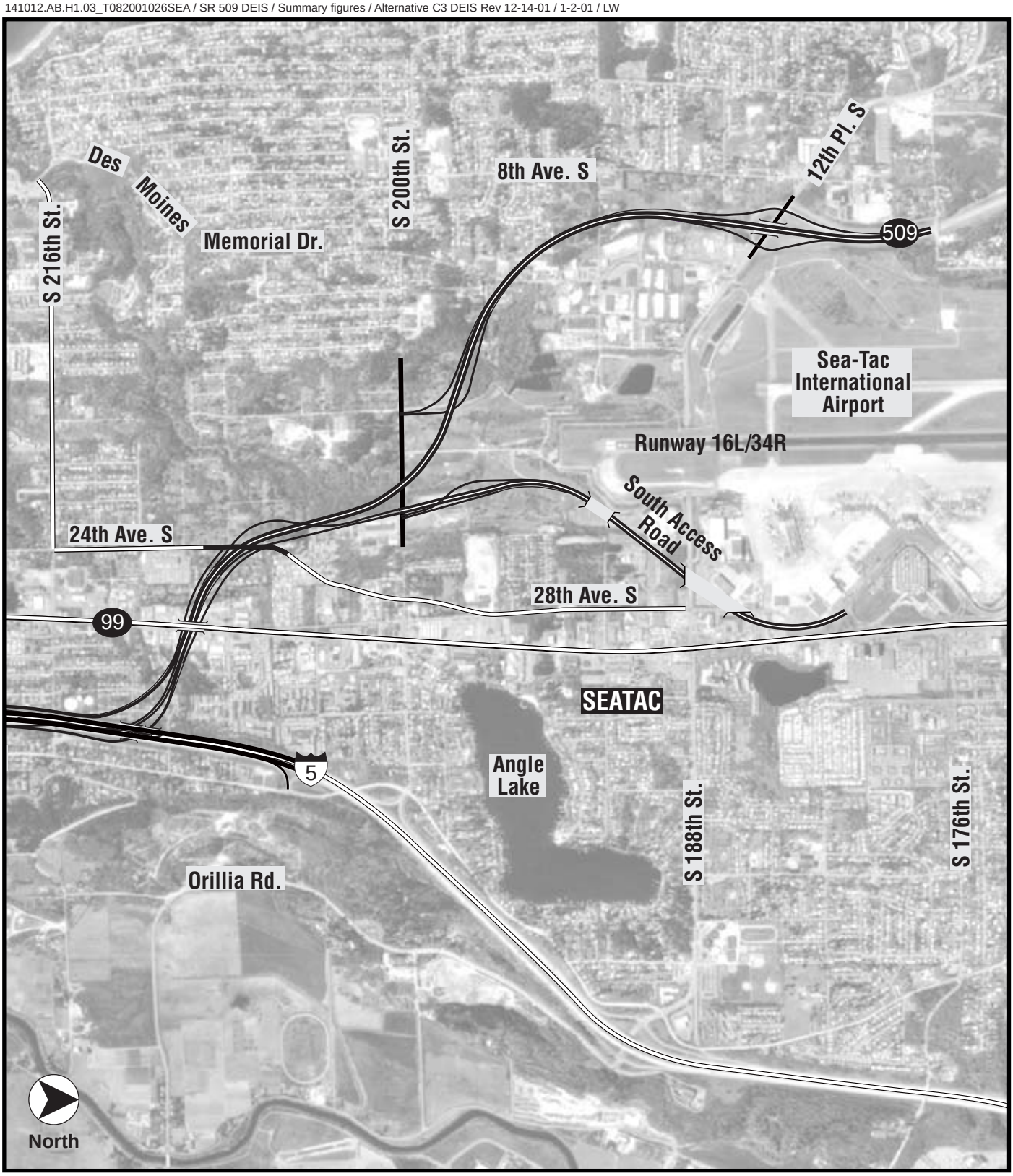
Legend

SR 509/South Access Improvements

FIGURE S-7

Alternative C2 (Preliminary Preferred)

SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement



0 1/4 1/2 3/4 1 MILES

Legend

SR 509/South Access Improvements

FIGURE S-8

Alternative C3

SR 509: Corridor Completion/I-5/South Access Road Environmental Impact Statement

- Redevelopment within the Port of Seattle Noise Remedy Program area
- Development of City of SeaTac Central Business District and Aviation Business Center proposals
- Implementation of the Des Moines Creek Basin Plan
- Execution of the Sound Transit Move Program

In addition, there are a number of currently planned local and regional transportation improvement projects that will be constructed in the project area and/or that would have a potential effect on traffic operations in the project area. These transportation projects, shown on Figure S-3, are programmed to be in place by 2020. The development and transportation projects are expected to affect traffic capacity and operation within the project area. These projects have already been, or will be, subject to separate environmental reviews; analysis of their specific impacts is not included in this report.

Summary of Major Environmental Impacts

Table S-1 summarizes the major impacts each alternative is likely to have on the elements of the environment, along with any measures that are recommended or proposed to mitigate those impacts.

Areas of Concern/Unresolved Issues

Over the past 6 years since the SR 509/South Access Road Project Corridor DEIS was issued, ongoing coordination with the numerous public agencies and jurisdictions involved with the development of the proposed action, as well as ongoing public involvement efforts (including open houses, newsletters, web sites, and presentations to various community and business groups), has resulted in the resolution of many complex issues associated with the proposed project. Although many previous areas of concern have been resolved, there are a couple of remaining issues that will require ongoing coordination efforts and more complete resolution for the project design to advance. These are listed and briefly discussed below.

Relocation Plan

The relocation studies performed in conjunction with the preparation of this Revised DEIS indicate that the number of families and businesses anticipated to require relocation can successfully be relocated within the project vicinity over the anticipated relocation time frame. Nonetheless, this remains an area of concern due to the overall number of relocations, the resources needed to successfully manage the relocations program, and the correlation and

prioritization of relocations according to the final staging of the proposed project, which has yet to be determined.

Stormwater Detention and Treatment

Throughout the development of this Revised DEIS, WSDOT has closely coordinated with the jurisdictional agencies involved with stormwater detention and treatment standards. While WSDOT has made commitments to treat the new pavement for the proposed project, there remain a number of unresolved issues. These primarily pertain to the amount of existing pavement within the I-5 corridor project limits that may require some level of stormwater retrofit, and the overall amount of acreage required to treat and detain the stormwater for the entire project. WSDOT is currently working to identify more specific treatment needs and is investigating the amount of land available to accommodate the necessary facilities.

Permits, Licenses, and Other Required Actions or Approvals

- U.S. Army Corps of Engineers
  - Section 404 of the Clean Water Act Permit
- Washington State Department of Ecology (Ecology)
  - Water Quality Certification, Section 401 of the Clean Water Act
  - National Pollutant Discharge Elimination System (NPDES) Stormwater Permit
  - NPDES Stormwater Site Plan—Individual
  - Coastal Zone Management Permit
- Washington Department of Natural Resources
  - Forest Practices Permit
- Washington State Department of Fish and Wildlife (WDFW)
  - Hydraulic Project Approval
- Cities of SeaTac, Des Moines, Federal Way, and Kent, and King County
  - Noise Variance
  - Clearing Permit
  - Critical Area Determination
- King County
  - Landfill Disturbance Permit (to be obtained by others)
- Federal Aviation Administration
  - Airport Highway Clearance

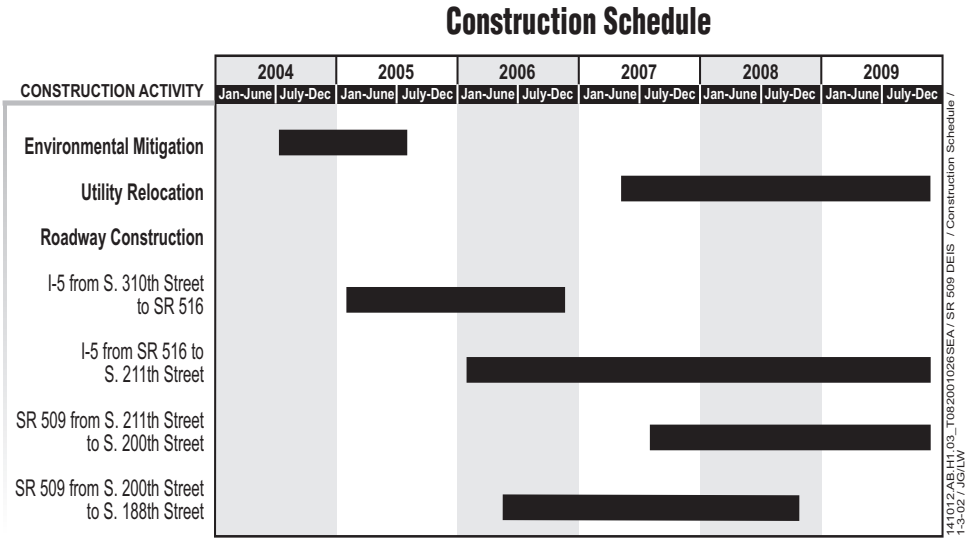
Estimated Cost and Construction Schedule

The estimated cost of constructing the SR 509: Corridor Completion/I-5/ South Access Road Project for each alternative is as follows:

- Alternative B—$715 to $735 million
- Alternative C2—$690 to $710 million
- Alternative C3—$695 to $715 million

These cost estimates are based on preliminary design information, and may be revised during the final design and construction phases of the project. These costs do not include the South Airport Link, the last 1,000 feet connecting the South Access Road to airport roadways.

If one of the build alternatives is selected, construction could begin in 2004. This anticipated start date is based on the availability of funds, which are not currently appropriated for the project. If funding is not available, the start of construction will be delayed.



Note: Because the proposed project requires many activities, some of which depend on the availability of project funding, the actual construction sequence has not been identified in detail. This construction schedule provides the general phasing of project construction. It is not to be construed as the final project sequencing plan, which would be proposed by the contractor if a contractor is awarded.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
3.1 Air Quality	**Operation (Long-Term) Impacts** Localized pollutant concentrations would not exceed the NAAQS. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None required.	**Operation (Long-Term) Impacts** Same as the No Action Alternative. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Construction activities would result in temporary emissions of pollutants. **Mitigation Measures** Use of best management practices during construction would control particulate emissions.	**Operation (Long-Term) Impacts** Same as the No Action Alternative. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Same as the No Action Alternative. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.
3.2 Noise	**Operation (Long-Term) Impacts** Approximately 1,348 impacted receptors (within the projected 66 dBA noise contour based on 2020 PM peak hour traffic volumes) would include mostly residences, plus a school, 2 parks, and 4 churches (this number will decrease as noise barriers planned by WSDOT are completed along I-5 as mitigation	**Operation (Long-Term) Impacts** Approximately 2,458 impacted receptors (within the projected 66 dBA noise contour based on 2020 PM peak hour traffic volumes) would include mostly residences, plus 3 schools, 3 parks, and 5 churches (this number will decrease as noise barriers planned by WSDOT are completed along I-5 as mitigation	**Operation (Long-Term) Impacts** Approximately 2,578 impacted receptors (within the projected 66 dBA noise contour based on 2020 PM peak hour traffic volumes) would include mostly residences, plus 3 schools, 3 parks, and 6 churches (this number will decrease as noise barriers planned by WSDOT are completed along I-5 as mitigation	**Operation (Long-Term) Impacts** Approximately 2,390 impacted receptors (within the projected 66 dBA noise contour based on 2020 PM peak hour traffic volumes) would include mostly residences, plus 3 schools, 3 parks, and 6 churches (this number will decrease as noise barriers planned by WSDOT are completed along I-5 as

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	for other projects). Noise levels would increase at locations near I-5 and decrease at locations away from I-5. **Mitigation Measures** None proposed. **Construction (Short-Term) Impacts** No impacts. **Mitigation Measures** None proposed.	for previous projects). Noise levels along I-5 would increase slightly over 1 dBA relative to the No Action Alternative. **Mitigation Measures** Noise barriers would be provided at appropriate areas where residents would likely be impacted by traffic noise and where the construction of the barriers is justified. Other possible mitigation measures could include building insulation, retaining existing trees and vegetation, thereby reducing noise annoyance psychologically by removing the noise source from view, and constructing land forms. **Construction (Short-Term) Impacts** Typical construction-related activities—engine-powered equipment, truck movements, impact equipment—would result in short-term and localized noise impacts. **Mitigation Measures** Contractors would comply with all state and local regulations governing equipment source	for previous projects). Noise levels along I-5 would increase slightly over 1 dBA relative to the No Action Alternative. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	mitigation for previous projects). Noise levels along I-5 would increase slightly over 1 dBA relative to the No Action Alternative. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		levels and noise resulting from construction site activities. Stationary noise sources would be placed as far from sensitive receivers as possible, idling equipment would be turned off, work that does not need to be done at night would be confined to daytime hours, and trucks would be equipped with properly sized and maintained mufflers.		
3.3 Energy	**Operation (Long-Term) Impacts** Continued consumption of energy due to traffic congestion, stopping and poor traffic at signals, and slower vehicle speeds. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Minor energy consumption due to maintenance of existing road system. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** Less consumption of energy than the No Action Alternative due to good flow of traffic at higher vehicle speeds compared to the No Action Alternative. Slightly more energy consumption than Alternatives C2 and C3. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Highest energy consumption of the build alternatives. **Mitigation Measures**	**Operation (Long-Term) Impacts** Less consumption of energy than the No Action Alternative due to best flow of traffic at higher vehicle speeds compared to the No Action Alternative. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Lowest energy consumption of the build alternatives. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Less consumption of energy than the No Action Alternative due to good flow of traffic at higher speeds compared to the No Action Alternative. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Similar energy consumption to Alternative C2, but less than Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Encourage carpooling and ontime delivery of equipment and material, limit idling of construction equipment, and locate construction laydown and staging areas close to work sites.		
3.4 Geology and Soils	**Operation (Long-Term) Impacts** No impacts on earth sensitive areas. **Mitigation Measures** None proposed. **Construction (Short-Term) Impacts** No erosion or sedimentation impacts. **Mitigation Measures** None proposed.	**Operation (Long-Term) Impacts** Excavation and construction in seismic hazard areas. Approximately 4.2 million cubic yards of cut material and 3.5 million cubic yards of fill. **Mitigation Measures** Structures would be designed to Seismic Zone 3 standards. **Construction (Short-Term) Impacts** Highest potential for erosion and sedimentation. Clearing, grading, and excavation could result in erosion and sedimentation to streams and wetlands. Temporary increases in noise, dust, and traffic from hauling cut and fill material.	**Operation (Long-Term) Impacts** Excavation and construction in seismic hazard areas. Approximately 3.2 million cubic yards of cut material and 1.2 million cubic yards of fill. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Lowest potential for erosion and sedimentation. Other impacts same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Excavation and construction in seismic hazard areas. Approximately 3.8 million cubic yards of cut material and 3.6 million cubic yards of fill. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Greater potential for erosion and sedimentation than Alternative C2, but lower than Alternative B. Other impacts same as Alternative B **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Mitigation Measures Implementation of appropriate erosion control standards during construction.		
3.5 Water Quality	**Operation (Long-Term) Impacts** No additional runoff from new impervious surface would be generated. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** Approximately 126.5 acres of new impervious surfaces would be created, increasing the potential for higher flows during storms, pollution from highway runoff, and accidental spills. After stormwater treatment, annual pollutant loadings to Des Moines and Miller Creek Basins would be the highest of the build alternatives. Accidental spills and sand and de-icing chemicals applied during maintenance could affect water quality of all receiving waters. Potential for impacts would be highest at one crossing of Des Moines Creek and four crossings of East Fork of Des Moines Creek. Groundwater recharge would be reduced in areas with fill. **Mitigation Measures** Detention and water quality measures, according to the King County basic water quality menu, WSDOT Endangered Species Act (ESA) stormwater effects guidelines, and WSDOT	**Operation (Long-Term) Impacts** Approximately 113 acres of new impervious surfaces would be created, and less stormwater runoff would be generated than for Alternative B. After stormwater treatment, annual pollutant loadings to Des Moines and Miller Creek Basins would be the lowest of the build alternatives. This alternative would have one crossing of Des Moines Creek and four crossings of East Fork of Des Moines Creek. Other impacts would be the same as for Alternative B. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Approximately 113.5 acres of new impervious surfaces would be created, generating less stormwater runoff than Alternative B, and slightly more than Alternative C2. After stormwater treatment, annual pollutant loadings to Des Moines and Miller Creek Basins would be similar to Alternative C2, and lower than Alternative B. Stream crossings would be the same as for Alternative C2. Other impacts would be the same as for Alternative B. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Roadside Classification Plan (RCP), including Integrated Vegetation Management, would be implemented. Operation mitigation measures would include operation and maintenance of stormwater management systems and implementation of a spill prevention and control plan. Groundwater infiltration would be increased through bioswales. **Construction (Short-Term) Impacts** Vegetation removal, interception of sheet flow, and soil compaction could temporarily increase runoff rates and cause erosion and sedimentation in receiving waters. Other pollutants, including fuel and lubricants, paving oils, chemicals, construction debris, and uncured concrete could enter surface waters. These pollutants could infiltrate to groundwater. **Mitigation Measures** A Stormwater Site Plan (SSP) would be developed to fulfill requirements of NPDES permit. The SSP would include provisions for implementation of BMPs to protect groundwater		

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		and public drinking water supply, measures to protect water and sewer lines, and construction monitoring. A Temporary Erosion and Sedimentation Plan (TESC) would also be developed according to King County guidelines. In addition, a Spill Prevention Control and Countermeasures (SPCC) plan would also be adopted as a construction planning element of the project to reduce accident-related water quality impacts.		
3.6 Wetlands	**Operation (Long-Term) Impacts** None. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** 7.7 acres of direct wetland impacts on Wetlands A, B, D, F, N, 1, 2, 6, 7, 8, 9, 16, 18, 21, and 22 (Ecology Category 2, 3, and 4 wetlands). 23.3 acres of wetland buffer impacts on Wetlands M, 5, 17, 15, 19, 23, I5-7, I5-10, I5-11, I5-12, I5-13, and I5-19 (without direct wetland impacts). Reduction in wetland functions (i.e. flood water detention/retention, groundwater recharge/discharge, and water quality improvement). Disruption of biological and wildlife support.	**Operation (Long-Term) Impacts** 0.2 acres of direct wetland impacts on Wetlands A, B, M, N, 16, and 23 (Ecology Category 2, 3, and 4 wetlands). Potential shade effects from bridges to Wetlands A, B, and D. Direct wetland impacts would be limited to placement of bridge piers. 13.9 acres of wetland buffer impacts on Wetlands A, B, D, F, G, I5-7, I5-10, I5-11, I5-12, I5-13, and I5-19 (without direct wetland impacts). Additional impacts are the same as Alternative B.	**Operation (Long-Term) Impacts** 5.4 acres of direct wetland impacts on Wetlands A, B, D, G, H, K, M, N, S, 16, 20, and 23 (Ecology Category 2, 3, and 4 wetlands). Potential shade effects to Wetland A from bridge structure. Direct wetland impacts would be limited to placement of bridge piers. 21.5 acres of wetland buffer impacts on Wetlands F, 15, and 17 (without direct wetland impacts). Additional impacts are the same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Mitigation Measures Avoidance of wetland impacts through alternative alignment and engineering design. This design impact has been reduced to 7.7 acres. Minimization of wetland impacts could be further reduced through design of bridges and vertical wall structures. Compensatory mitigation for wetland impacts by creation of new wetlands, or restoration or enhancement of existing wetlands. Requirements include creation and/or restoration at a minimum 1:1 mitigation ratio. Additional mitigation is required to satisfy Ecology's wetland mitigation guidelines. **Construction (Short-Term) Impacts** Temporary wetland and buffer impacts during construction include clearing, grading, excavation, and filling. Exposed soils can erode and increase sediment transport to wetlands. Wetland water quality could be	**Mitigation Measures** Avoidance of wetland impacts through alternative alignment and engineering design. This design impact has been reduced to 0.2 acres. WSDOT has committed to avoiding Wetland F (northwest pond) and spanning Wetlands A, B, and D (Tyee Pond). Additional mitigation measures are the same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Mitigation Measures** Avoidance of wetland impacts through alternative alignment and engineering design. This design impact has been reduced to 5.4 acres. Minimization of wetland impacts could be further reduced through design of bridges and vertical wall structures. Additional mitigation measures are the same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		adversely affected during construction as a result of onsite storage and use of fuel and lubricants for construction equipment. **Mitigation Measures** Wetlands impacted by short-term construction would be restored upon completion of construction. Affected wetlands and buffers would be replanted with native vegetation. Federal, state, and local best management practices would ensure that stormwater runoff is collected and treated before entering existing bodies of water. Settling ponds, containment berms, silt fences, sediment traps, seeding of exposed slopes, and other measures would be implemented as indicated. A spill prevention plan will be in place during construction.		
3.7 Vegetation, Fish, and Wildlife	**Operation (Long-Term) Impacts** None. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** Bridge structures that would cross wetlands and Des Moines Creek could restrict sunlight and precipitation to vegetation communities beneath the	**Operation (Long-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	Construction (Short-Term) Impacts None. **Mitigation Measures** None.	bridges. Operation-related impacts on wildlife are expected to be minor and related principally to ambient noise levels associated with vehicular traffic. Potential operation impacts on streams include water quality degradation from operation and maintenance activities and accidental spills associated with stormwater runoff to receiving waters. No federal- or state-listed sensitive, threatened, or endangered plant or wildlife species regularly breed, forage, or occupy the project area. No impacts on threatened or endangered species are anticipated. **Mitigation Measures** Mitigation measures for operation impacts would be similar for all build alternatives. Following construction, native plant communities would be established to replace exotic, invasive species. Disturbed soils would also be covered, seeded, and/or revegetated with native species following construction. Water quality degradation is not expected as long as stormwater	**Construction (Short-Term) Impacts** Alternative C2 would disturb less vegetation than Alternatives B and C3. Substantially less forested and wetland habitat would be cleared under Alternative C2. Other impacts would be the same as for Alternative B. Alternative C2 would result in one new bridge crossing of Des Moines Creek and four new crossings of the East Fork of Des Moines Creek. Anadromous fish runs do not occur in the reaches of Des Moines Creek that will be affected. Alternative C2 does not alter any existing culverts or stream crossings and does not involve in-water work. Potential construction impacts on Des Moines Creek would be the same as for Alternative B. **Mitigation Measures** Same as Alternative B.	**Construction (Short-Term) Impacts** Alternative C3 would disturb less vegetation than Alternative B and more than Alternative C2. Other impacts would be the same as for Alternative B. Impacts associated with stream crossings would be similar to Alternative B and C2. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		management plans, facilities, and related best management practices are installed and maintained to comply with the King County Surface Water Design Manual, and WSDOT's Highway Runoff Manual.		
		Construction (Short-Term) Impacts Alternative B would have greater impacts on vegetation communities, particularly forested and wetland habitats, than Alternatives C2 and C3. Exposed and/or compacted soils would be susceptible to colonization by invasive species. Vegetation removal would result in loss of wildlife habitat that provides protective cover, nesting areas, and food for animals and could displace and/or eliminate wildlife. Heavy equipment use would cause temporary audible and visual disturbance to wildlife. Alternative B would result in one new bridge crossing of Des Moines Creek and four new crossings of the East Fork of Des Moines Creek. Anadromous fish runs do not occur in the stream reaches that would be crossed. Alternative B does not alter any existing stream crossings and		

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		does not involve in-water work. Construction activities could introduce a variety of pollutants and sediments into adjacent water resources. No impacts on threatened or endangered species are anticipated. **Mitigation Measures** Mitigation measures for construction impacts would be similar for all build alternatives. Construction activities would be scheduled to take into account timing recommendations from WDFW and other agencies to avoid disturbance to breeding wildlife in sensitive habitats, such as wetlands. Monitoring would be conducted during construction to ensure that mitigation measures are successfully implemented and that performance standards are achieved. All stream crossings would be spanned with bridges to minimize impacts on streams and fish habitat from the project. Construction activities would occur outside of stream channels, and the period of construction activity would be limited according to recommendations from WDFW, NMFS, and USFWS. Alternative B would require fish and water quality related design guidelines		

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		and other forms of mitigation to comply with various federal, state, and local permit requirements.		
3.8 Land Use	**Operation (Long-Term) Impacts** 96 acres of the existing SR 509 right-of-way would remain in its current use, along with the existing I-5 corridor right-of-way, between South 216th Street and South 310th Street. Regional traffic congestion patterns would continue to worsen. Accessibility to the airport would remain the same. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** Would require the greatest amount of new right-of-way acquisition (175-180 acres). This number does not include the existing/unutilized right-of-way for SR 509, I-5, or major arterials. 77 acres of the total would be vacant or undeveloped land (this is the most of all the build alternatives). Would require 0.5 acre of Des Moines Creek Park, and would avoid taking land from the Hillgrove Cemetery and the Federal Detention Center, but would take some land from the NW corner of the Alaska Airlines Gold Coast Center. **Mitigation Measures** WSDOT would coordinate with the cities of SeaTac and Des Moines to identify alternative property that could offset impacts associated with acquiring portions of Des Moines Creek Park. People and businesses	**Operation (Long-Term) Impacts** Would require the least amount of new right-of-way of all the build alternatives (94-100 acres). Would acquire the most land designated for Residential High Density uses (17 acres), but the least Residential Low Density land uses (30 acres). Would require the acquisition of 3 acres of Des Moines Creek Park, but would avoid the Hill-grove Cemetery, Alaska Airlines Gold Coast Center, and the Federal Detention Center. **Mitigation Measures** WSDOT would replace any lost parkland acreage through a negotiated land swap between WSDOT and the City of SeaTac. People and businesses displaced would be entitled to relocation assistance and payment programs. Permits and approvals would be acquired to ensure that the project is consistent with local	**Operation (Long-Term) Impacts** Would require 138-143 acres for new right-of-way. Would acquire the least amount of vacant or undeveloped land of all the build alternatives (28.7 acres). Would require 4 acres of Des Moines Creek Park. Would displace the Alaska Airlines Gold Coast Center, but avoid the Hillgrove Cemetery and the Federal Detention Center. **Mitigation Measures** WSDOT would replace any lost parkland acreage through a negotiated land swap between WSDOT and the City of SeaTac. People and businesses displaced would be entitled to relocation assistance and payment programs. Permits and approvals would be acquired to ensure that the

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		displaced would be entitled to relocation assistance and payment programs. Permits and approvals would be acquired to ensure that the project is consistent with local comprehensive plans, zoning ordinances, and other regulations. **Construction (Short-Term) Impacts** Temporary traffic congestion, access, and parking restrictions would affect the quality and character of existing land uses. **Mitigation Measures** Access impacts would be mitigated through appropriate construction practices as mentioned in the transportation analyses.	comprehensive plans, zoning ordinances, and other regulations. **Construction (Short-Term) Impacts** Same as Alternative B. Could have less impacts than Alternative B because 80 fewer acres would have to be acquired. **Mitigation Measures** Same as Alternative B.	project is consistent with local comprehensive plans, zoning ordinances, and other regulations. **Construction (Short-Term) Impacts** Same as Alternative B. Could have less impacts than Alternative B because 40 fewer acres would have to be acquired. **Mitigation Measures** Same as Alternative B.
3.9 Relocation	**Operation (Long-Term) Impacts** None. **Mitigation Measures** None. **Construction (Short-Term)**	**Operation (Long-Term) Impacts** 19-24 businesses 106-114 single-family units 253-266 multifamily units 4 mobile homes (The residents of four existing mobile home parks will be relocated as part of the Port of Seattle Noise Mitigation Plan prior to and independent of construction of	**Operation (Long-Term) Impacts** 16-20 businesses 71-79 single-family units 175-187 multifamily units 4 mobile homes (The residents of four existing mobile home parks will be relocated as part of the Port of Seattle Noise Mitigation Plan prior to and independent of construction of	**Operation (Long-Term) Impacts** 12-17 businesses 111-114 single-family units 135-143 multifamily units 4 mobile homes (The residents of four existing mobile home parks will be relocated as part of the Port of Seattle Noise Mitigation Plan prior to and independent of construction of

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	Impacts None. **Mitigation Measures** None.	the SR 509 extension) **Mitigation Measures** Displacees would be eligible for relocation assistance to find suitable and comparable relocation sites under the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended. Planned and approved housing exists in the project area. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	the SR 509 extension) **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	the SR 509 extension) **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.
3.10 Social	**Operation (Long-Term) Impacts** Community cohesion would be largely unaffected. The lack of access improvements would conflict with GMA concurrency requirements for proposed growth and development in the area. No impacts on recreational facilities.	**Operation (Long-Term) Impacts** Moderately severe impacts on Homestead Park community cohesion. Moderate impacts on Midway, Madrona and Grandview community cohesion. Would assist jurisdictions within the project area to direct development in accordance with their comprehensive planning. The Tyee Valley Golf Course	**Operation (Long-Term) Impacts** Moderately severe impacts on Mansion Hill community cohesion. Moderate impacts on Midway and Madrona neighborhood community cohesion. Same regional and community growth impacts as Alternative B. Same recreational impacts as Alternative B, except would	**Operation (Long-Term) Impacts** Moderately severe impacts on Mansion Hill and Homestead Park community cohesion. Moderate impacts on Midway neighborhood community cohesion. Same regional and community growth impacts as Alternative B. Same recreational impacts as Alternative B, except would

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	No direct impacts on services and utilities. No impacts on pedestrian and bicyclist facilities. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	would likely close. 0.5 acres of Des Moines Creek Park would be acquired. No direct impacts on Midway Park, Linda Heights Park, or Mark Twain School Playfield. School access would be more complicated for some students who walk to school because of street closures. One church would be displaced. Some utilities would need to be relocated. **Mitigation Measures** Construct a new access connection between South 208th and South 204th Streets to preserve access to remaining apartment complexes in the Madrona neighborhood. Investigate the feasibility and benefits of maintaining through access on key streets and installing pedestrian access across the roadway. Portions of the unused existing WSDOT right-of-way could be sold to local jurisdictions as recreational land. Extend school bus routes to include children whose school access would be disrupted.	acquire 2.9 acres of Des Moines Creek Park. Same service and utility impacts as Alternative B. **Mitigation Measures** Same community cohesion mitigation as Alternative B. In addition, WSDOT will investigate the feasibility of providing revised access to three homes near the intersection of South 211th Street and 32nd Avenue South that would lose access as a result of the alternative's current design. Portions of the unused existing WSDOT right-of-way could be sold to local jurisdictions as recreational land. An extension of Des Moines Creek Park Trail would be incorporated into alignment design. Same service and utility mitigation as Alternative B. **Construction (Short-Term) Impacts** Existing utilities may need to be relocated during construction. During construction of the	acquire 3.9 acres of Des Moines Creek Park. Same service and utility impacts as Alternative B. **Mitigation Measures** Same community cohesion mitigation as Alternative B. Same recreational mitigation as Alternative C2. Same service and utility mitigation as Alternative B. **Construction (Short-Term) Impacts** Existing utilities may need to be relocated during construction. During construction of the elevated structure in Des Moines Creek Park, the trailhead parking area and the northern end of Des Moines Creek Trail would likely need to be closed for safety reasons. **Mitigation Measures** WSDOT would work with local service providers to coordinate utility relocation efforts and to minimize service disruptions.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Access plans would be developed for emergency services in areas where street access would be changed. **Construction (Short-Term) Impacts** Existing utilities may need to be relocated during construction. During construction of the bridges over Des Moines Creek, Des Moines Creek Trail would likely need to be closed for safety measures. **Mitigation Measures** WSDOT would work with local service providers to coordinate utility relocation efforts and minimize service disruptions. WSDOT would work closely with the City of SeaTac to minimize disruption to the facilities and, when unavoidable, work with the City to implement alternative routes/detours.	elevated structure in Des Moines Creek Park, the trailhead parking area and the northern end of Des Moines Creek Trail would likely need to be closed for safety reasons. **Mitigation Measures** If the trailhead parking area and trail (under Alternatives C2 and C3) need to be closed during construction for safety reasons. WSDOT would work closely with the City of SeaTac to minimize disruption to the facilities and, when unavoidable, work with the City to implement alternative routes/detours.	Same mitigation measures as Alternative B.
3.11 Economic	**Operation (Long-Term) Impacts** Traffic congestion on I-5, other north/south arterials, and some east/west arterials would likely	**Operation (Long-Term) Impacts** The movement of goods and people from I-5 to Sea-Tac Airport and other locations along	**Operation (Long-Term) Impacts** Same as Alternative B.	**Operation (Long-Term) Impacts** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	continue to worsen, despite numerous roadway improvements. This would further impair the movement of goods and people within the cities of SeaTac and Des Moines and to Sea-Tac Airport. **Mitigation Measures** None. **Construction (Short-Term) Impacts** No businesses or residences would be displaced by right-of-way acquisition for the project, and there would be no resulting job losses or decreases in property or sales tax revenue. Benefits associated with construction related spending would not be realized. **Mitigation Measures** None.	the SR 509 corridor would be improved. Commercial vehicles and individual passengers traveling to and from Sea-Tac Airport would experience travel time savings due to the improved roadway. The fiscal impacts associated with the initial loss of property tax revenues would represent less than 1 percent of each jurisdiction's total tax revenues; therefore, the impact would not be considered substantial. The impacts on sales tax revenues are also not likely to be substantial. The initial tax impacts associated with displacements would likely be offset eventually by tax revenues associated with increased development of vacant land and redevelopment of existing buildings throughout the project area. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Construction would result in a $715 million project and the	**Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Construction would result in a $690 million project and the associated positive impacts on employment and overall economic activity in the project area. Impacts on businesses might include temporarily increased congestion, noise, dust, and possibly interrupted or more difficult access. Temporary reduction in retail sales might result as customers avoid shopping in the construction area (this would be partially offset by sales tax revenues generated by construction spending in the region). Right-of-way acquisition would displace between 16 and 20 businesses. Depending on the option selected, the construction of the South Airport Link would be expected to displace between 0 and 4 businesses in the SeaTac	**Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Construction would result in a $695 million project and the associated positive impacts on employment and overall economic activity in the project area. Impacts on businesses might include temporarily increased congestion, noise, dust, and possibly interrupted or more difficult access. Temporary reduction in retail sales might result as customers avoid shopping in the construction area (this would be partially offset by sales tax revenues generated by construction spending in the region). Right-of-way acquisition would displace between 12 and 17 businesses. Depending on the option selected, the construction of the South Airport Link would be expected to displace between 0 and 4 businesses in the SeaTac

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		associated positive impacts on employment and overall economic activity in the region. Impacts on businesses might include temporarily increased congestion, noise, dust, and possibly interrupted or more difficult access. Temporary reduction in retail sales might result as customers avoid shopping in the construction area (this would be partially offset by sales tax revenues generated by construction spending within the project area). Right-of-way acquisition would displace between 19 and 24 businesses. Depending on the option selected, the construction of the South Airport Link would be expected to displace between 0 and 4 businesses in the SeaTac city center. The I-5 improvements would displace 2 to 3 businesses. **Mitigation Measures** Install temporary signage to inform drivers that access to businesses during construction is temporarily changed or restricted. Require contractors to submit	city center. The I-5 improvements would displace 2 to 3 businesses. **Mitigation Measures** Same as Alternative B.	city center. The I-5 improvements would displace 2 to 3 businesses. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		and receive approval of a construction plan to maintain access for all properties and businesses adjacent to construction activity. Coordinate with affected business owners to develop and implement strategies to maintain access to businesses during construction. Inform businesses and tenants displaced by new right-of-way acquisition or other construction activities that they would be entitled to relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended by RCW 8.26.		
3.12 Historic and Archaeological Resources	**Operation (Long-Term) Impacts** None. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures**	**Operation (Long-Term) Impacts** No impacts would occur to known state or National Register listed or eligible resources. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Six potentially historic buildings	**Operation (Long-Term) Impacts** Same as Alternative B. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Five potentially historic buildings would be removed during	**Operation (Long-Term) Impacts** Same as Alternative B. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Six potentially historic buildings would be removed during

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	None.	would be removed during construction. **Mitigation Measures** WSDOT would consult with the tribes during construction in accordance with Section 106 of the National Historic Preservation Act of 1966. If required, archaeological monitoring will be undertaken during construction; in the event that potentially significant archaeological remains are found, specific late discovery procedures will be followed. If any of the buildings to be removed during construction are determined by OAHP to be NRHP-eligible, mitigation measures may include modifications to the project design to avoid or minimize impacts; review and approval by SHPO and local Landmarks Preservation Board of project design elements that may damage, alter, or obscure views of a historic resource/designated local landmark; or relocation of the historic resource.	construction. **Mitigation Measures** Same as Alternative B.	construction. **Mitigation Measures** Same as Alternative B.
3.13 Hazardous Waste	**Operation (Long-Term) Impacts** Increases potential for hazardous	**Operation (Long-Term) Impacts** Less potential for hazardous	**Operation (Long-Term) Impacts** Same as Alternative B.	**Operation (Long-Term) Impacts** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
	materials spills because of future increases in traffic congestion. **Mitigation Measures** None. **Construction (Short-Term) Impacts** No known or potentially contaminated sites would be affected. **Mitigation Measures** None.	materials spills associated with lower levels of traffic congestion. **Mitigation Measures** None. **Construction (Short-Term) Impacts** Thirty-six known or suspected contaminated sites could be affected. Four substantially contaminated sites could be affected. Potential soil and groundwater contaminants include petroleum hydrocarbons, solvents, and heavy metals. Construction of I-5 improvements could require excavation in or adjacent to the Midway Landfill. **Mitigation Measures** General mitigation includes erosion control, spill prevention and containment measures. Removal, and disposal of demolition debris, underground storage tanks, and contaminated soil would be conducted in accordance with regulatory requirements.	**Mitigation Measures** None. **Construction (Short-Term) Impacts** Forty known or suspected contaminated sites could be affected. The four substantially identified for alternative B could potentially be affected. Same impacts associated with the Midway Landfill as for Alternative B. **Mitigation Measures** Same as Alternative B.	**Mitigation Measures** None. **Construction (Short-Term) Impacts** Forty known or suspected contaminated sites could be affected. Six substantially contaminated sites could be affected, including the four sites identified for Alternatives B and C2. Same impacts associated with the Midway Landfill as for Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		Mitigation for construction in the vicinity of Midway landfill could include construction of retaining walls, odor control, and modification of the existing geomembrane and gas extraction system.		
3.14 Visual Quality	**Operation (Long-Term) Impacts** None. **Mitigation Measures** None. **Construction (Short-Term) Impacts** None. **Mitigation Measures** None.	**Operation (Long-Term) Impacts** Visual impacts on Lower Des Moines Creek, South 208th St. Draw, Mansion Hill, Midway Ridge, and Kent/Federal Way caused by clearing of vegetation, installation of noise walls, and construction of new lanes, ramps, or bridge structures. Changes would be visible to residents and recreational users. **Mitigation Measures** Incorporate aesthetic consid-erations into project design; minimize clearing and preserve stands of mature trees and natural vegetation; plant vegetation to preserve character, screen views, and blend the project with adjoining landscapes; consider wide-span bridge crossings to minimize view obstruction and interruption of visual continuity; employ principles of architectural design to enhance the appearance of	**Operation (Long-Term) Impacts** Visual impacts on Upper Des Moines Creek, South 208th St., Mansion Hill, Midway Ridge, and Kent/Federal Way caused by clearing of vegetation, installation of noise walls, and construction of new lanes, ramps, or bridge structures. Changes would be visible to residents and recreational users. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.	**Operation (Long-Term) Impacts** Visual impacts on Upper Des Moines Creek, Mansion Hill, Midway Ridge, and Kent/Federal Way caused by clearing of vegetation, installation of noise walls, and construction of new lanes, ramps, or bridge structures. Changes would be visible to residents and recreational users. **Mitigation Measures** Same as Alternative B. **Construction (Short-Term) Impacts** Same as Alternative B. **Mitigation Measures** Same as Alternative B.

Table S-1 Summary of Major Environmental Impacts				
Environmental Element	**Alternative A (No Action)**	**Alternative B**	**Alternative C2 (Preliminary Preferred)**	**Alternative C3**
		project features and to promote visual corridor continuity; investigate opportunities to acquire sufficient right-of-way to provide space for plantings near retaining walls; and design interchanges as enhancements. **Construction (Short-Term) Impacts** Construction equipment, materials, and signage could be visible in staging areas and temporary lighting could be necessary for nighttime construction. **Mitigation Measures** Locate material and equipment storage in areas that are not prominent and shield roadway lighting so that light sources are not directly visible from residential areas.		

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