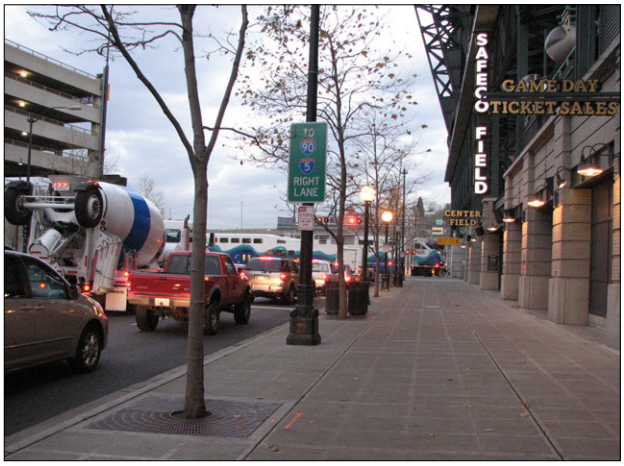
SR 519 Intermodal Access Project Phase 2: Atlantic Corridor

ENVIRONMENTAL ASSESSMENT

February 2008



Washington State Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

SR 519 Intermodal Access Project Phase 2: Atlantic Corridor

Seattle, Washington

Environmental Assessment

Submitted pursuant to Section 42 U.S.C. 4332(2)(c) and 23 C.F.R. Part 771

By the Washington State Department of Transportation
and the U.S. Department of Transportation, Federal Highway Administration, Washington Division

1/22/08
Date of Approval

Megan White, P.E.
Director, Environmental Services
Washington State Department of Transportation
Lead for State Environmental Policy Act (SEPA)

1/22/08
Date of Approval

Stephen Boch, P.E.
Major Project Oversight Manager
Federal Highway Administration
Lead for National Environmental Policy Act (NEPA)

The following persons may be contacted for additional information concerning this document:

Stephen Boch, P.E.
Federal Highway Administration
915 2nd Avenue, Room 3142
Seattle, WA 98174
(206) 220-7536

Allison Hanson
Washington State Department of Transportation
999 3rd Avenue, Suite 2424
Seattle, WA 98104
(206) 716-1136

In compliance with the National Environmental Policy Act, this Environmental Assessment describes the environmental effects of constructing a new westbound off-ramp from I-90 to the current South Atlantic Street overpass; improving the intersection of First Avenue South and South Atlantic Street; and building a grade-separated vehicle, bicycle, and pedestrian crossing over the railroad tracks at South Royal Brougham Way. The analysis concludes that the project will not have a significant adverse effect on the environment.

Copies of this document may be purchased for $16, which does not exceed the cost of reproduction. The Environmental Assessment is also available for review through the Seattle Public Library as well as the Downtown Neighborhood Service Center and the Greater Duwamish Neighborhood Service Center. Comments must be postmarked or received by March 7, 2008, and should be returned to:

Allison Hanson, Deputy Director of Environmental Services
Urban Corridors Office
Washington State Department of Transportation
999 Third Avenue, Suite 2424
Seattle, WA 98104
or email SR519@wsdot.wa.gov

A public hearing on this Environmental Assessment will be held on February 20, 2008, at Union Station, 401 South Jackson Street, Seattle, Washington, from 4 p.m. to 7 p.m.

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A Federal agency may publish a notice in the Federal Register, pursuant to 23 USC §139(l), indicating that one or more Federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 180 days after the date of publication of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

TABLE OF CONTENTS

Appendices

The following appendices are included on CD only, located at the back of this document:

Exhibits

Acronyms and Abbreviations

	A
ADA	Americans with Disabilities Act
APE	Area of Potential Effects
	B
BMP	best management practice
BNSF	Burlington Northern Santa Fe (BNSF Railway is a subsidiary of the Burlington Northern Santa Fe Corporation.)
	C
CADD	computer-aided design and drafting
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
	D
DAHP	Washington Department of Archaeology and Historic Preservation
dBA	a-weighted decibels
	E
EBI	Elliott Bay interceptor
Ecology	Washington State Department of Ecology
EIS	environmental impact statement
ESA	Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)
	F
FAZ	forecast analysis zone
FGTS	Washington State Freight and Goods Transportation System
FHWA	Federal Highway Administration
	G
GIS	geographic information system
	H
HOV	high-occupancy vehicle
HRM	Highway Runoff Manual

	I
I-90	Interstate 90
	K
kHz	kilohertz
	L
L_{dn}	day-night noise equivalent level
L_{eq}	equivalent average sound level
$L_{eq\ (h)}$	hourly equivalent average sound level
L_{max}	maximum sound level
LOS	level of service
	M
µg/m³	micrograms per cubic meter
Metro	King County Metro Transit
mph	miles per hour
MSATs	mobile source air toxics
	N
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
	P
PGS	pollution-generating surface
PM	particulate matter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
POS	Port of Seattle
ppm	part(s) per million
PSCAA	Puget Sound Clean Air Agency
PSPD	Pioneer Square Preservation District
PSRC	Puget Sound Regional Council
	R
RCW	Revised Code of Washington
RFFAs	reasonably foreseeable future actions

	S
SDOT	Seattle Department of Transportation
SEPA	State Environmental Policy Act
SFZ	Seattle Fault Zone
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMC	Seattle Municipal Code
SO_2	sulfur dioxide
SODO	South Downtown
SPCC	Spill Prevention, Control, and Countermeasure Plan
SPU	Seattle Public Utilities
SR	State Route
	T
TESC	temporary erosion and sediment control
TMP	transportation management plan
TNM	FHWA Traffic Noise Model
	U
USEPA	United States Environmental Protection Agency
USC	United States Code
USGS	U.S. Geological Survey
	V
VOCs	volatile organic compounds
	W
WAC	Washington Administrative Code
WDNR	Washington State Department of Natural Resources
WSDOT	Washington State Department of Transportation
WTCU	wholesale trade, transportation, communication, and utilities
	Y
yr. BP	years before present

Chapter 1 Summary

This environmental assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA, 42 USC 4321-4347) and its implementing regulations (40 CFR 1500-1508).

The Washington State Department of Transportation (WSDOT) and the Federal Highway Administration (FHWA) are improving westbound connections for freight, ferry, and other traffic from the I-5/I-90 freeway system to the Port of Seattle terminals and the south Seattle waterfront area. State Route (SR) 519 Phase 2 improvements—officially called the SR 519 Intermodal Access Project Phase 2: Atlantic Corridor—will provide a direct westbound route for freight and ferry traffic and will separate freight, car, bicycle, and pedestrian traffic from railway operations to improve westbound traffic flow, increase pedestrian safety, and reduce the risk of collisions.

The Phase 2 SR 519 project is the Build Alternative evaluated in this EA. The EA also evaluates the expected environmental effects of not building the project, called the No Build Alternative. It compares the expected environmental effects of building and operating the project with those of the No Build Alternative.

Exhibit 1-1. Project Location

Where is the SR 519 Phase 2 project located?

The SR 519 Phase 2 project is located in the heart of Seattle's stadium area in the South Downtown (SODO) district (Exhibit 1-1). The project is bounded on the south by South Atlantic Street, on the north by

South Royal Brougham Way, on the west by First Avenue South, and on the east by the existing westbound off-ramp from I-5 and I-90.

What is the SR 519 Phase 2 project?

The SR 519 Phase 2 project is the second phase of improvements that WSDOT is making to improve east-west traffic flow between the Seattle waterfront and the I-5/I-90 freeway system. The project includes three components:

- A new off-ramp from I-90 to South Atlantic Street
- A new South Royal Brougham Way overpass above the railroad tracks just west of Third Avenue South
- Roadway widening along South Atlantic Street east of First Avenue South and improvements to the intersection of First Avenue South and South Atlantic Street

Chapter 4 discusses the project in detail.

What benefits will the project provide?

The project will increase westbound traffic mobility and safety by improving connections between I-5/I-90 and the Port of Seattle terminals, the Washington State Ferries terminal at Colman Dock, SODO industrial and commercial properties, and the stadium area. The project will provide a more direct route between I-5/I-90 and the Seattle waterfront so that westbound freight, commuters, and local traffic can move more safely and efficiently through the stadium area. It will also improve safety and reduce traffic delays by closing the surface-level rail crossing on South Royal Brougham Way near Fourth Avenue South and replacing it with an elevated crossing for vehicles, bicycles, and pedestrians.

The project will provide a new off-ramp from I-90 to South Atlantic Street (the middle ramp in the west-facing simulation above) and an elevated crossing over the railroad tracks, with a loop ramp at Third Avenue South and South Royal Brougham Way. It will also make improvements to South Atlantic Street and its intersection with First Avenue South.

The project will improve safety for people walking to stadium-area events, work, and neighborhood destinations, and it will reduce truck and rail traffic conflicts so that freight operators can move trucks more efficiently from the freeway system to Port of Seattle terminals and other waterfront industrial and commercial destinations.

When will construction begin, and how long will it take?

Construction of the SR 519 Phase 2 project will begin in mid-2009 and take about 3 years. WSDOT is exploring contracting options to speed up construction. Completing this project before the Alaskan Way Viaduct is removed will make it easier to maintain traffic mobility in the viaduct project area. WSDOT is managing the SR 519 and Alaskan Way Viaduct and Seawall Replacement Program projects within the same office so that construction and design issues can be coordinated and disruption to traffic minimized.

How will the project affect the built environment?

The analyses presented in this environmental assessment (EA) conclude that the SR 519 Phase 2 project will not have a significant adverse effect on the built environment. Three components of the built environment that WSDOT (2007a) and FHWA (1987) sometimes include in EAs—farmlands, relocations, and joint development—are not included in the analyses presented here because the project will not involve them.

The **built environment** consists of all aspects of our surroundings that people have created or changed from natural conditions.

Transportation. During construction, from 2009 to 2012, traffic congestion will increase locally. For public safety, bus stops will be temporarily relocated outside of the immediate construction zone. Once operational, the project will allow westbound freight to move faster and more directly; reduce conflicts between rail and other modes of travel; provide safer connections for bicyclists and pedestrians along South Royal Brougham Way; provide a more direct route for commercial, commuter, and local traffic from the I-5/I-90 freeway system to Seattle's central waterfront area and terminals; and improve access from I-5 and I-90 to the Safeco Field and Qwest Field Event Center parking garages. It will reduce on-street parking along First Avenue South and Third Avenue South by about 50 spaces to allow roadway widening of First Avenue South and construction of the South Royal Brougham Way railroad overpass. The project will also remove several bus parking spaces in the Ryerson Bus Base where the support columns for the new I-90 off-ramp will be located.

Best management practices are innovative and improved environmental protection tools, practices, and methods that have been determined to be the most effective, practical means of avoiding or reducing environmental impacts. WSDOT's *Construction Manual*, M 41-01.03, provides detailed information on construction-related BMPs (WSDOT, 2007b).

Noise and Vibration. While the project is being built, WSDOT will follow best management practices (BMPs) to minimize construction noise. By the project design year, 2030, noise levels at three studied locations near the project will decrease slightly, because the project will reduce traffic congestion. At two other locations, where there are outdoor dining facilities, the cumulative noise level from all sources will approach or exceed FHWA Noise Abatement Criteria (NAC) by 2030, with or without the project. Predicted changes in noise levels during project operation, whether increases or decreases, will be too small to be detectable by people.

The **design year** is the year in the future for which a transportation facility is designed to operate, taking into consideration projected volumes of traffic.

Energy. The project will reduce fuel consumption by improving traffic flow and reducing vehicle idling time. This point is noted in the Transportation section of Chapter 5 as a beneficial trade-off between short-term fuel consumption during project construction and long-term fuel savings during project operation.

Land Use. The project will not directly or indirectly change land use patterns, because the proposed roadway improvements will not affect the travel routes or destinations of drivers, bicyclists, or pedestrians except on the new elevated structures themselves. Acquiring new right-of-way for the project, needed to allow roadway widening and placement of support structures, will change about 5,415 square feet from existing land uses to transportation-related use. These site-specific changes will be too small to induce broader changes in land use. The project is consistent with regional and local transportation and land use plans and development regulations.

The **area of potential effects (APE)** is the area in which historic properties, if they are present, could be directly or indirectly affected by the project.

Cultural Resources. One building in the area of potential effects (APE), the Frederick and Nelson Warehouse at 1518 First Avenue South, is eligible for the National Register of Historic Places, and is likely to meet Seattle's Landmark criteria. The project team found that the project will have no significant impact and no adverse effect on this property. In 2007, the project team conducted a subsurface investigation of locations inside the project footprint where ground-penetrating activities, such as drilling shafts for structural foundations, are

Section 106 of the National Historic Preservation Act requires federal agencies to identify and evaluate cultural resources and consider how their undertakings affect historic properties eligible for inclusion in the National Register of Historic Places.

likely to occur. The study, part of the identification phase required by Section 106 of the National Historic Preservation Act (NHPA), used coring procedures to determine whether archaeological historical properties, such as the wooden remains of nineteenth-century structures, are likely to be encountered during construction. The results of the subsurface testing indicate that no significant cultural resources are likely to be encountered during project construction. Based on the analysis, the project will have no adverse effects on historic properties. This determination is conditional on additional archaeological review during construction.

Social and Economic Elements. During construction, WSDOT will install signage to alert drivers, bicyclists, and pedestrians that project activities are underway and will follow BMPs to protect the safety of construction workers and all others entering or passing through the construction zone. Project construction will provide short-term economic benefits through increased employment. Temporary lane closures and detours will slow access locally and could affect sales at businesses in the immediate project vicinity. Construction-related delays will increase travel times for local freight deliveries and pickups in the study area. Once the project is operational, the South Royal Brougham Way railroad overpass will improve connectivity and safety for bicyclists and pedestrians by providing bicycle lanes and a pedestrian walkway that complies with the accessibility requirements of the Americans with Disabilities Act (ADA). The project will not disrupt neighborhood cohesion, community life, or social patterns and will not displace any business, employee, or resident. It will benefit the economy by reducing traffic congestion and will provide long-term economic benefits by improving freight transport and commuter travel times from the I-5/I-90 freeway system to the Seattle waterfront and other SODO destinations.

Environmental Justice. The project will not have disproportionately high adverse effects on minority and/or low-income people.

USDOT Act Section 4(f). Section 4(f) of the U.S. Department of Transportation Act declares as national policy that a special effort be made to preserve the natural beauty of the countryside, including public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The project will not affect any Section 4(f) resources.

Public Services and Utilities. During construction, WSDOT will maintain unimpeded passage for emergency service vehicles at all times. Once operational, the South Royal Brougham Way railroad overpass will allow public service vehicles to proceed freely and independently of rail traffic. Before and during construction, WSDOT will locate underground utilities to ensure they are not damaged by ground-penetrating activities such as drilling shafts for support structures. Project operation will not affect utilities.

Visual Quality. The new I-90 off-ramp to South Atlantic Street and the South Royal Brougham Way railroad overpass will change views along Fourth Avenue South, South Atlantic Street, and South Royal Brougham Way. Because these changes will be compatible with the surrounding visual environment, the resulting decrease in the visual quality rating will be small. WSDOT will incorporate context-sensitive design elements to make the project consistent with the industrial/sports-stadium/entertainment character of the neighborhood.

How will the project affect the natural environment?

The analyses discussed in this EA conclude that the SR 519 Phase 2 project will not have a significant effect on the natural environment. Because of the project's urban setting, the following components of the natural environment are not involved and are not addressed:

- Wetlands
- Fish and wildlife
- Floodplains
- Ecologically sensitive areas
- Wild and scenic rivers
- Coastal barriers

- Coastal zone impacts

Geology and Soils. Although project construction will produce localized soil erosion and intermittent ground vibration from heavy equipment operation, these effects will be temporary and minimized by BMPs. The project will be built in a seismically active area prone to ground shaking and liquefaction during earthquakes. The new elevated structures will be designed to current seismic standards and will be supported by deep foundations to minimize damage from soil liquefaction during earthquakes. Soil compression beneath the elevated structures, particularly the fill embankments for the approaches to the South Royal Brougham Way overpass, could lead to long-term ground settlement and lateral movement of soil. WSDOT will use ground-improvement methods such as jet grouting or other techniques, as appropriate, to avoid these effects.

Liquefaction is the transformation of a granular soil from a solid state into a liquefied state, often as a consequence of strong earthquake shaking.

Air Quality. Dust and odors will be produced at times during construction, but these effects will be minor and temporary, and minimized by BMPs. Once built and operating, the project will improve traffic flow, reduce vehicle idling times, and thus contribute to a small improvement in air quality over expected future conditions without the project. The project will comply with National Ambient Air Quality Standards, the State Implementation Plan for carbon monoxide, and all requirements of the federal Clean Air Act and the Washington Clean Air Act.

Water Resources. WSDOT will apply and monitor BMPs during construction to minimize erosion, sedimentation, and the risk of petroleum products or other contaminants entering the stormwater collection system. When completed, the project will add 0.93 acre of new impervious surface and convert 0.82 acre of non-pollutant-generating impervious surface to pollutant-generating impervious surface. Basic water quality treatment will be provided for stormwater runoff from the project, reducing the quantity of pollutants discharged to Elliott Bay and the West Point Treatment Plant below current, pre-project levels. The project will not affect groundwater recharge.

Hazardous Materials. The project will require acquisition of small land parcels in locations that might be contaminated from past uses. WSDOT will minimize the potential for any existing contamination on acquired properties to affect the project by appropriately identifying and investigating the sites. WSDOT will perform remedial activities where necessary, including the removal and disposal of contaminated material. During operation, the project will improve traffic flow and reduce the number of vehicle turns required, which will lower the long-term potential for hazardous material spills from collisions and other transportation-related incidents between the I-5/I-90 freeway system and the Seattle waterfront.

Threatened and Endangered Species. WSDOT has determined that the project will have no effect on any species or designated critical habitat listed or proposed for listing under the Endangered Species Act (ESA). The project team obtained information from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NOAA Fisheries) to determine the presence or absence of listed and proposed threatened or endangered species and of designated and proposed critical habitat in the study area. The team also conducted an onsite field review of the study area on April 16, 2007. The list of species considered in the analysis was narrowed to those listed or proposed under the ESA that have suitable habitat in, or in the vicinity of, the study area: bald eagle, coastal Puget Sound bull trout, Puget Sound Chinook salmon, Puget Sound steelhead, leatherback sea turtle, southern resident killer whale, humpback whale, and Steller sea lion. By providing onsite stormwater treatment, the project will reduce pollutant loads from the project site below current levels and thus produce a net benefit to water quality. For this reason, the project will not affect any threatened or endangered species or habitat for such species.

Will the project contribute significantly to cumulative effects?

The project will not contribute significantly to any adverse cumulative effect. During construction, WSDOT will closely

coordinate the SR 519 Phase 2 project with the demolition and new construction of the south end of the Alaskan Way Viaduct to minimize cumulative construction-related effects on traffic. By reducing vehicle idling times, the completed project will help to limit the long-term increase of cumulative air quality effects.