

REFERENCES

ACRONYMS & ABBREVIATIONS

A

ADA Americans With Disabilities Act

B

BINMIC Ballard Interbay Northend Manufacturing and Industrial Center

BMP Best Management Practice

BNSF BNSF Railway Company

BTU British thermal units

C

CAFE Corporate Average Fuel Economy

CEVP® Cost Estimate Validation Process

CFR Code of Federal Regulations

City City of Seattle

CO carbon monoxide

CO₂ carbon dioxideCO₂e carbon dioxide equivalents**D**

DAHP Washington State Department of Archaeological and Historic Preservation

dBA A-weighted decibels

E

Ecology Washington State Department of Ecology

EIS Environmental Impact Statement

EO executive order

EPA U.S. Environmental Protection Agency

ESA Endangered Species Act

F

FR Federal Register

FHWA Federal Highway Administration

H

HAER Historic American Engineering Record

HOV high-occupancy vehicle

I

I-5 Interstate 5

I-90 Interstate 5

ITS Intelligent Transportation Systems

LL_{eq} equivalent sound level**M**

MIC Manufacturing and Industrial Center

mph miles per hour

N

NAAQS National Ambient Air Quality Standards

NEPA National Environmental Policy Act

NOI notice of intent

NPDES National Pollutant Discharge Elimination System

NPS National Park Service

P

PAH polycyclic aromatic hydrocarbon

PCBs polychlorinated biphenyls

PGIS pollutant-generating impervious surface

PM_{2.5} particulate matter less than 2.5 micrometers in diameterPM₁₀ particulate matter less than 10 micrometers in diameter

ppm parts per million

Program Alaskan Way Viaduct and Seawall Replacement Program

project Alaskan Way Viaduct Replacement Project

PSRC Puget Sound Regional Council

R

RCW Revised Code of Washington

RFP request for proposals

ROD Record of Decision

S

SEPA State Environmental Policy Act

Sea-Tac Seattle-Tacoma International (Airport)

SHPO State Historic Preservation Officer

SIG Seattle International Gateway

SMC Seattle Municipal Code

SODO South of Downtown

SR State Route

T

TBM tunnel boring machine

V

VdB vibration decibel level

VHD vehicle hours of delay

VHT vehicle hours of travel

VMT vehicle miles of travel

W

WAC Washington Administrative Code

WDFW Washington Department of Fish and Wildlife

WOSCA Washington-Oregon Shippers Cooperative Association

WSDOT Washington State Department of Transportation

INDEX

A

Acquisitions 21, 22, 117, 156, 191, 192

Adverse effects 119, 120, 121, 149, 150, 169, 228, 231, 233, 235, 236, 240, 242, 243

Air quality 25, 35, 85, 124, 152, 158, 173, 193, 199, 222

Alaskan Way Promenade/Public Space 3, 6, 7, 163, 170

Alaskan Way Surface Street Improvements 6, 163, 170, 193

Aquatic habitat 26, 125, 154, 159, 195, 200

Archaeological resources 23, 33, 81, 120, 148, 149, 156, 172, 192, 199, 231, 232, 235, 239

B

Ballard Interbay Northend Manufacturing and Industrial Center (BINMIC) 7, 75

Battery Street Tunnel 2, 4, 8, 12, 49, 59, 74, 93, 135, 170, 192, 225, 231, 233, 240, 243

Bicycles 7, 24, 30, 34, 78, 111, 141, 168, 190

Buses 7, 8, 30, 168, 189

Businesses 119, 192, 198

effects on 5, 22, 33, 144

parking 33

relocation 155

CColman Dock: *See* Ferries

Construction

durations 37, 131, 195, 197

noise 31

traffic restrictions 28, 37, 136, 169, 170, 195, 196

Controversial issues 42

Costs 15, 49, 52, 111, 200, 205

Cultural resources 33, 70, 222, 225

Cumulative effects 36, 161, 200

Curved Sixth Avenue 14, 60, 62, 95, 112

D

Dearborn South Tideland site 23, 31, 33, 82, 173, 239

Dewatering 132, 142, 153

Disabled populations 84, 154

Duwamish industrial area 5, 7, 73, 75

E

Economics 22, 33, 84, 119, 144, 156, 172, 192, 198

Elliott Bay Seawall Project 6, 163, 170

Elliott Bay 87

Elliott/Western Connector 6, 7, 163, 170

Emergency services 151, 158, 193, 199

Endangered species 88

Energy 25, 35, 86, 124, 152, 158, 173, 222

Environmental justice 41, 84, 158

Erosion 153, 159

F

Ferries 30, 77, 110, 140, 168

Fire 123, 193, 199

suppression 12

First Avenue S., construction traffic effects on 28, 29

First Avenue Streetcar 6, 7, 163

Fish 26, 35, 88, 125, 154, 159, 173, 195, 200

Freight 22, 30, 73, 75, 76, 109, 119, 140, 168, 189

Funding 3

G

Greenhouse gas emissions 25, 35, 86, 124, 152, 159, 173, 222

Groundwater 26, 89, 125, 174

H

Hazardous waste 35, 89, 141, 154, 174

Historic resources 23, 31, 81, 120, 148, 156, 172, 192, 198, 222, 229

Homeless populations 24, 84, 150, 158

I

I-5 18, 72, 165, 184

additional trips 105

Indirect effects 127, 154, 200

Irretrievable resources 127, 200

Irreversible decisions 127, 200

L

Lake Union 87

Land use 21, 34, 81, 111, 112, 118, 172

Link light rail 77

Low-income populations 24, 34, 65, 84, 122, 150, 158, 192, 199, 219

M

Mercer West Project 6, 8, 163, 170

Minority populations 24, 34, 65, 84, 122, 150, 158, 192, 219

Mitigation 128, 174, 243

 permanent/operational 26, 233

 temporary/construction 35, 154, 235, 236, 239, 240

 traffic management 154

Moving Forward projects 2, 5, 8, 49, 161

N

Neighborhoods 23, 34, 83, 121, 149, 158, 173, 192, 199

New Dearborn and Charles Intersections 13, 60, 61, 94

New Dearborn Intersection 13, 60, 61, 94

No Build Alternative (Viaduct Closed): *See* Viaduct Closed (No Build Alternative)

Noise 21, 31, 79, 112, 142, 155, 170, 171, 191, 197, 222

O

Open space 122, 151, 158, 193

P

Parking 22, 33, 79, 119, 145, 156, 169, 170, 192, 198

Parks 24, 34, 82, 122, 151, 158, 193, 199, 226

Partnership Process 3, 49

Pedestrians 30, 78, 111, 141, 156, 168, 190

Pike Place Market, 7, 81, 192

Pioneer Square 7, 31, 81, 121, 192, 236

Police 85, 123, 193

Port of Seattle 3, 5, 84, 136

Project limits 1, 53

Public involvement 41, 64, 159

Public services 25, 35, 85, 123, 151, 158, 173, 193, 199

Q

Qwest Field: *See* Stadiums

R

RapidRide 7

Recreation 24, 34, 82, 122, 151, 158, 193, 199, 226

Relocations

 properties 144, 192

 utilities 151, 169, 199

Runoff 26

S

S. Holgate Street to S. King Street Viaduct Replacement Project 2, 6, 8,

11, 49, 59, 97, 131, 163, 169

S. Massachusetts Street to Railroad Way S. Electrical Line

Relocation Project 2, 6, 8, 163

S. Spokane Street Viaduct Widening Project 6, 8

Safeco Field: *See* Stadiums

Safety 4, 12, 95, 123, 168

Seattle Center 5, 77

Section 4(f) resources 226

Settlement 31, 35, 142, 233, 236

Social resources 24, 34, 150, 158, 173, 192, 199

Soil 26, 35

 improvements 126, 127, 131, 157, 174, 200, 235, 236, 237

 liquefaction 45, 71

Spills, prevention of 159

SR 99 Yesler Way Vicinity Foundation Stabilization 6, 8, 163

Stadiums 97

Staging areas 1, 2, 135

Stormwater 25, 35, 87, 153, 159, 193, 200

Straight Sixth Avenue 14, 60, 62, 95, 112

T

Tolling 39, 205

 environmental justice 219

 history 206

 scenarios 207

 traffic effects 208

Traffic 15, 29, 73, 97, 163

 events 30, 34, 77, 110, 141, 151

Transit 77, 109, 168, 215

 construction effects on 140

 enhancements 6, 7, 170

Travel time 16, 17, 19, 55, 57, 100-102, 108, 110, 165, 166, 182, 183, 212, 215

Tribes 66, 229

Tunnel Boring Machine (TBM) 31, 133

U

Utilities 25, 35, 85, 123, 173

 relocations 151, 158

V

Viaduct Closed (No Build Alternative) 1, 4, 11, 12, 63, 97, 177, 241

Viaduct demolition 34, 134, 150, 170, 192

Vibration 34, 80, 143, 155, 197

Views (visual resources) 22, 34, 80, 81, 114, 144, 155, 172

W

Water quality 25, 35, 86, 125, 153, 159, 173, 193, 199

Wildlife 26, 35, 88, 125, 154, 173

WOSCA detour 27, 131, 137, 169

LIST OF APPENDICES

Supporting Documentation (All in separate volumes)

A. Public Involvement Discipline Report

B. Alternatives Description and Construction Methods Discipline Report

C. Transportation Discipline Report

D. Visual Quality Discipline Report

E. Visual Simulations

F. Noise Discipline Report

G. Land Use Discipline Report

H. Social Discipline Report

I. Section 106: Historic, Cultural, and Archaeological Resources Discipline Report

J. Section 4(f) Supplemental Materials

K. Public Services and Utilities Discipline Report

L. Economics Discipline Report

M. Air Discipline Report

N. Wildlife, Fish, and Vegetation Discipline Report

O. Surface Water Discipline Report

P. Earth Discipline Report

Q. Hazardous Materials Discipline Report

R. Energy Discipline Report

S. Project History Report

T. Supplemental Draft EIS Annotated Outline

REFERENCES

- Chapter 1**
City of Seattle. 2007. *Seattle's Industrial Lands Background Report*. May 2007. Department of Planning and Development. Available at: http://www.seattle.gov/dpd/cms/groups/pan/@pan/@plan/@industrialands/documents/web_informational/dpd_p_020037.pdf.
- City of Seattle. 2008.** Council Passes Seattle Center Master Plan. News release dated August 18, 2008. Available at: <http://www.seattle.gov/council/newsdetail.asp?ID=8758&Dept=28>. Accessed November 18, 2009.
- Federal Register. 2008.** Environmental Impact Statement in Seattle, WA. Notice of intent. Federal Register Vol. 73, No. 137, p. 40908. July 16, 2008.
- Federal Register. 2009.** Environmental Impact Statement in Seattle, WA. Notice of intent. Federal Register, Vol. 74, No. 106, pp. 26917–26918. June 4, 2009.
- Federal Register. 2010.** Notice of Intent to Prepare an Environmental Impact Statement for the Elliott Bay Seawall Project, Seattle, WA. Federal Register, Vol. 75, No. 103, pp. 30004–30005. May 28, 2010.
- Larsen, R., D. Reichert, B. Baird, N. Dicks, J. McDermott, D. Hastings, J. Inslee, A. Smith, and C. McMorris. 2005.** Letter dated May 11, 2005, from members of the House of Representatives, Congress of the United States, to House Committee on Transportation and Infrastructure members D. Young, T. Petri, J. Oberstar, and P. DeFazio.
- Parsons Brinckerhoff Quade & Douglas, Inc. 2002.** *SR 99: Alaskan Way Viaduct Project No Action Alternative. Executive Summary*. August 2002.
- Parsons Brinckerhoff Quade & Douglas, Inc. 2004.** *SR 99: Alaskan Way Viaduct and Seawall Replacement Project Draft EIS. Appendix C, Transportation Discipline Report*, Section 4.10.2. March 2004.
- SAFETEA-LU, Public Law 109-59. 2005.** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. Section 1301. August 10, 2005.
- WSDOT (Washington State Department of Transportation). 1995.** *Seismic Vulnerability of the Alaskan Way Viaduct: Summary Report*. Publication WA-RD 363.4. July 1995.
- Chapter 2**
City of Seattle. 2009a. *Stormwater Manual* [Directors' Rules for Seattle Municipal Code, Chapters 22.800–22.808 (Stormwater Code)], Volumes 1–4. Seattle Public Utilities, Department of Planning and Development. Publications SPU 2009-003 through 2009-006 and DPD 15-2009 through 18-2009. Seattle, Washington. November 5, 2009.
- City of Seattle. 2009b.** Stormwater Code Exception, South King St. & Royal Brougham South Basins, South Access Project, Viaduct Replacement Project. Letter from Bruce Bachen, Seattle Public Utilities Drainage and Wastewater Quality Division Director, to Mark W. Anderson, P.E., WSDOT Project Engineer. Seattle, Washington. November 17, 2009.
- King County GIS Center. 2010.** King County Parcel Viewer: Interactive Property Research Tool. Available at: <http://www.kingcounty.gov/operations/GIS/PropResearch/ParcelViewer.aspx>.
- U.S. Department of Energy. 2006.** 2003 Commercial Buildings Energy Consumption Survey (CBECS) Detailed Tables. Released October 2006. Available at: http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html#a1a8. Accessed July 29, 2009.
- WSDOT (Washington State Department of Transportation). 2008.** *Highway Runoff Manual*. M 31-16.01. Washington Department of Transportation, Environmental and Engineering Programs, Design Office, Olympia, Washington. June 2008.
- Chapter 3**
American Society of Civil Engineers Review Committee. 2006. *Report of the American Society of Civil Engineers Review Committee*. December 4, 2006.
- Federal Register. 2008.** Environmental Impact Statement in Seattle, WA. Notice of intent. Federal Register Vol. 73, No. 137, p. 40908. July 16, 2008.
- Federal Register. 2009.** Environmental Impact Statement in Seattle, WA. Notice of intent. Federal Register, Vol. 74, No. 106, pp. 26917–26918. June 4, 2009.
- Gregoire, C. 2006.** Governor Gregoire Outlines a Path Forward to Replace the Alaskan Way Viaduct and 520 Bridge. News release dated December 15, 2006. Available at: <http://www.governor.wa.gov/news/news-view.asp?pressRelease=411&newsType=1>. Accessed November 9, 2009.
- KPFF Consulting Engineers. 2008.** *Alaskan Way Viaduct Independent Project Management Team: Evaluation of Seismic Retrofit Options*. September 28, 2008.
- Parametrix. 2010.** *Revised Screening of Design Concepts 2010 Update*. August 2010.
- Parsons Brinckerhoff. 2007.** *Seismic Vulnerability Analysis Report*. November 2007.
- Ty Lin. 2005.** Ty Lin International Independent Engineering Assessment of the Continuing Impacts of the February 2001 Nisqually Earthquake Upon the Alaskan Way Viaduct in Seattle, Washington.
- WSDOT (Washington State Department of Transportation). 1995.** *Seismic Vulnerability of the Alaskan Way Viaduct: Summary Report*. Publication WA-RD 363.4. July 1995.
- WSDOT. 2006a.** *The Alaskan Way Viaduct and SR 520 Bridge Projects: Report of the Expert Review Panel*. Revision 1. September 1, 2006. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/29E6D7A7-C145-4314-826E-0B6173DCD4F0/0/ERP_FinalReport_8312006.pdf. Accessed September 2, 2009.
- WSDOT. 2006b.** *Updated Cost Estimates: Alaskan Way Viaduct and SR 520 Bridge Projects*. October 2006.
- WSDOT. 2008.** *Battery Street Tunnel Structural Implications of Materials and Corrosion Testing Results*. Prepared by Parsons Brinckerhoff and Jacobs Engineering. April 2008.
- WSDOT. 2009.** Centennial Accord Plan. Available at: http://www.wsdot.wa.gov/tribal/centennial_accord.htm. Accessed April 6, 2010.
- Chapter 4**
City of Seattle. 2008. *The Greater Seattle Datasheet 2008 Edition*. Available at: <http://www.seattle.gov/oir/datasheet/Datasheet2008.pdf>. Accessed April 22, 2009.
- City of Seattle. 2009a.** *Basic Industries Economic Impact Analysis*. July 2009. Available at: http://www.seattle.gov/economicdevelopment/pdf_files/CAI%20BasicIndustries%202009%200803%20Final.pdf. Accessed September 11, 2009.
- City of Seattle. 2009b.** *Draft Shoreline Characterization Report*. Prepared by City of Seattle. March 2009.
- CTED (Washington State Department of Community, Trade and Economic Development). 2008.** *Planning for Climate Change*. Report to the Legislature. December 2008. Available at: <http://www.commerce.wa.gov/UPLOADS/Growth%20Management/PDF/lucc.pdf>. Accessed September 9, 2009.

REFERENCES

- CTED. 2009.** *King County Overview*. Available at: <http://www.choosewashington.com/locate/counties/Pages/king.aspx>. Accessed April 22, 2009.
- Downtown Seattle Association. 2009.** *State of Downtown 2009*. Available at: <http://www.downtownseattle.com/content/download/transient/SOD2009EconomicReport.pdf>. Accessed August 20, 2009.
- Driscoll, E., P.E. Shelley, and E.W. Strecker. 1990.** *Pollutant Loadings and Impacts From Highway Stormwater Runoff*. Vol. III, Analytical Investigations and Research Report. FHWA RD-88-008. Prepared for Federal Highway Administration by Woodward-Clyde Consultants, Oakland, California.
- Ecology (Washington State Department of Ecology). 1995.** *Elliott Bay Waterfront Recontamination Study*. Vol. 2, Data Evaluation and Remedial Design Recommendations Report. Publication 95-607. Prepared by the Washington State Department of Ecology, Elliott Bay/Duwamish Restoration Panel, Panel Publication 10. August 1995.
- Ecology. 2009a.** Washington's Leadership on Climate Change, 2009 Executive Order. Available at: <http://www.ecy.wa.gov/climatechange/2009EO.htm>. Accessed September 9, 2009.
- Ecology. 2009b.** *2008 Washington State's Water Quality Assessment [303(d)] query tool*. Available at: <http://www.ecy.wa.gov/programs/wq/303d/2008/index.html>. Last updated February 2009. Accessed August 17, 2009.
- EIA (U.S. Energy Information Administration). 2008.** *Washington State Total Energy Consumption by Sector for 2006*. December 2008. Available at: http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=WA.
- Eisinger, A. 2009.** Personal communication (e-mail) dated August 7, 2009, with Betsy Minden, Parsons Brinckerhoff, Seattle, Washington, on results of the 2009 One Night Count. Director, Seattle/King County Coalition on Homelessness, Seattle, Washington.
- EPA (U.S. Environmental Protection Agency). 1971.** *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances*. Washington D.C.
- EPA. 1974.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety*. Report 550/9-74-004. Washington, D.C.
- FTA (Federal Transit Administration). 1995.** *Transit Noise and Vibration Impact Assessment*. Final report.
- Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. 2000.** Atlas of Seal and Sea Lion Haulout Sites in Washington. Washington Department of Fish and Wildlife, Wildlife Science Division, North, Olympia, Washington.
- Kerwin, J. 2001.** *Salmon and Steelhead Habitat Limiting Factors Report for the Cedar-Sammamish Basin* (Water Resource Inventory Area 8). Washington Conservation Commission, Olympia, Washington.
- Li, K. 2009.** *North West Martins*. Purple Martin Society. Available at: <http://www.purplemartins.com/outsidere-sources/levin-li/kevin-li-article.htm>. Accessed June 17, 2010.
- LMEA (Labor Market and Economic Analysis Branch). 2009.** *Unemployment Rate in Washington State: Resident Civilian Labor Force and Employment*. July 28, 2009. Washington State Employment Security Department, Labor Market and Economic Analysis Branch. Available at: http://www.workforceexplorer.com/admin/uploadedPublications/1886_laus_historical.xls. Accessed July 29, 2009.
- NMFS (National Marine Fisheries Service). 2010a.** Puget Sound Rockfish Endangered Species Act Listing. Available at: <http://www.nwr.noaa.gov/Other-Marine-Species/Puget-Sound-Marine-Fishes/ESA-PS-Rockfish.cfm>. Accessed April 27, 2010.
- NMFS. 2010b.** Endangered and Threatened Wildlife and Plants: Threatened Status of Southern Distinct Population Segment of Eulachon. Final Rule. Federal Register Vol. 5, No.52, pp. 13012-13024. March 18, 2010.
- Parsons Brinckerhoff. 2007.** *Seismic Vulnerability Analysis Report*. November 2007.
- Seattle/King County Coalition on Homelessness. 2009.** Summary of the 2009 Unsheltered Homeless Count in Selected Areas of King County (data sheet). February 2, 2009.
- Seattle/King County Coalition on Homelessness. 2010.** Summary of the 2010 Unsheltered Homeless Count in Selected Areas of King County (data sheet). February 2, 2010.
- Thomas, G.S. 2009.** Seattle Lost 69K Jobs in Last Year. Puget Sound Business Journal. September 1, 2009.
- U.S. Census Bureau. 2000.** Census of Population and Housing, 2000 (100 percent and sample survey). Available at: <http://factfinder.census.gov>.
- U.S. Census Bureau. 2008.** American Community Survey, 2008. Available at: <http://factfinder.census.gov>.
- USFWS (U.S. Fish and Wildlife Service). 2009.** U.S. Fish and Wildlife Service critical habitat mapper website. Available at: <http://criticalhabitat.fws.gov/>. Accessed July 22, 2009.
- Warner, E., and K. Fresh. 1999.** *Draft Lake Washington Chinook Salmon (Oncorhynchus tshawytscha) Recovery Plan*. March 25, 1999.
- WDFW (Washington Department of Fish and Wildlife). 2009a.** Priority Habitats and Species Maps. Olympia, Washington.
- WDFW. 2009b.** Species of Concern in Washington State. List dated June 1, 2009. Available at: <http://wdfw.wa.gov/wlm/diversty/soc/soc.htm>.
- WSDOT (Washington State Department of Transportation). 2009.** *Guidance for Project-Level Greenhouse Gas and Climate Change Evaluation*. WSDOT Air Quality, Noise, Energy Program. September 2009.
- Yount, J.C., G.R. Dembroff, and G.M. Barats. 1985.** Map Showing Depth to Bedrock in the Seattle 30' x 60' Quadrangle, Washington. U.S. Geological Survey Miscellaneous Field Studies Map MF-1692. Scale 1:100,000.
- Chapter 5
- City of Seattle. 1998.** Pioneer Square Neighborhood Plan. Adopted November 1998.
- City of Seattle. 1999.** Downtown Urban Center Neighborhood Plan. Adopted May 1999.
- City of Seattle. 2009a.** *City of Seattle Comprehensive Plan, Toward a Sustainable Seattle, Transportation Element. Department of Planning and Development*. January 2005, amended 2009. Available at: http://www.seattle.gov/dpd/static/Transportation%20replacement%202009_LatestReleased_DPDP016177.pdf. Accessed April 8, 2010.

REFERENCES

- City of Seattle. 2009b.** *Stormwater Manual* [Directors' Rules for Seattle Municipal Code, Chapters 22.800–22.808 (Stormwater Code)], Volumes 1–4. Seattle Public Utilities, Department of Planning and Development. Publications SPU 2009-003 through 2009-006 and DPD 15-2009 through 18-2009. Seattle, Washington. November 5, 2009.
- City of Seattle. 2009c.** Stormwater Code Exception, South King St. & Royal Brougham South Basins, South Access Project, Viaduct Replacement Project. Letter from Bruce Bachen, Seattle Public Utilities Drainage and Wastewater Quality Division Director, to Mark W. Anderson, P.E., WSDOT Project Engineer. Seattle, Washington. November 17, 2009.
- King County GIS Center. 2010.** King County Parcel Viewer: Interactive Property Research Tool. Available at: <http://www.kingcounty.gov/operations/GIS/PropResearch/ParcelViewer.aspx>.
- NHTSA (National Highway Traffic Safety Administration). 2010.** Corporate Average Fuel Economy (CAFE). Available at: <http://www.nhtsa.gov/fuel-economy>. Accessed April 2010.
- PSRC (Puget Sound Regional Council). 2007.** *Parking Trends for the Central Puget Sound Region, 2004–2006*. Available at: <http://www.psrc.org/assets/815/t7jan07.pdf>.
- U.S. Department of Energy. 2006.** 2003 Commercial Buildings Energy Consumption Survey (CBECS) Detailed Tables. Released October 2006. Available at: http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html#a1a8. Accessed July 29, 2009.
- WSDOT (Washington State Department of Transportation). 2008.** *Highway Runoff Manual*. M 31-16.01. Washington Department of Transportation, Environmental and Engineering Programs, Design Office, Olympia, Washington. June 2008.
- Chapter 6**
- Littlejohn, S. 2009.** Protecting Big Ben Using Corrective Compensation Grouting. *Geo-Strata*. September/October 2009. pp. 24-26.
- PSRC (Puget Sound Regional Council). 2007.** *Parking Trends for the Central Puget Sound Region, 2004–2006*. Available at: <http://www.psrc.org/assets/815/t7jan07.pdf>.
- WSDOT (Washington State Department of Transportation). 2009.** *Construction Manual*. M 41-01. July 2009. Available at: <http://www.wsdot.wa.gov/publications/manuals/full-text/m41-01/construction.pdf>. Accessed September 2009.
- Chapter 7**
- PSRC (Puget Sound Regional Council). 2009.** VISION 2040. December 2009.
- WSDOT (Washington State Department of Transportation), FHWA (Federal Highway Administration), and EPA (Environmental Protection Agency). 2008.** Guidance on Preparing Cumulative Impact Analyses. February 2008.
- Chapter 9 Tolling**
- Eliasson, J., and L.-G. Mattsson. 2006.** *Equity Effects of Congestion Pricing: Quantitative Methodology and a Case Study for Stockholm*. Transportation Research Part A: Policy and Practice 40(7): 602–620.
- Giuliano, G. 1994.** *Equity and Fairness Considerations of Congestion Pricing*. In: *Curbing Gridlock: Peak Period Fees to Relieve Traffic Congestion*. Transportation Research Board Special Report 242, Vol. 2, pp. 250–279. National Academy Press, Washington, D.C.
- May, A.D. 1993.** International Experiences With Congestion Pricing. *ITE Journal* 63(12).
- Plotnick, R., J. Romich, and J. Thacker. 2009.** The Impacts of Tolling on Low-Income Persons in the Puget Sound Region. Publication WA-RD 721.1, Washington State Transportation Center (TRAC)/University of Washington, Seattle, Washington.
- Prozzi, J., I.C. Victoria, C.M. Walton, and J.A. Prozzi. 2007.** Identifying, Measuring, and Mitigating the Environmental Justice Impacts of Toll Roads. Paper submitted to the 2007 Annual Meeting of the Transportation Research Board.
- Santos, G., and L. Rojey. 2004.** Distributional Impacts of Road Pricing: The Truth Behind the Myth. *Transportation* 31(2004): 21–42.
- WSDOT (Washington State Department of Transportation). 2008.** *Social, Economic, and Environmental Justice Report, SR 167 – 8th Street E. Vic. to S 277th Street Vic., Southbound HOT Lane*. August 2008. Washington State Department of Transportation, Seattle, Washington. Available at: <http://www.wsdot.wa.gov/NR/rdonlyres/80352212-F081-4099-A726-9EB932E10146/0/SOCIALECONOMICENVIRONMENTALJUSTICE.pdf>.
- WSDOT. 2009.** *Urban Partnership SR 520 Variable Tolling Project, Environmental Justice Discipline Report*. March 2009. Washington State Department of Transportation, Olympia, Washington. Available at: <http://media.digitalarchives.wa.gov/WA.Media/do/C85C5F0998A64B1164E2A90359B4D771.pdf>.
- WSDOT. 2010.** SR 99 Alaskan Way Viaduct Replacement Updated Cost and Tolling Summary Report to the Washington State Legislature. January 2010. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/3FBD89BD-FCE8-4769-BF4A-5C4CB95C7FD9/0/SR99_Cost_Tolling_Summary_Jan10.pdf.
- Draft Section 4(f) Evaluation**
- FHWA (Federal Highway Administration). 2005.** Section 4(f) Policy Paper. March 2005.
- Parametrix. 2010.** *Revised Screening of Design Concepts 2010 Update*. August 2010.
- WSDOT (Washington State Department of Transportation), City of Seattle, and U.S. Department of Transportation, Federal Highway Administration. 2004.** *SR 99: Alaskan Way Viaduct & Seawall Replacement Project Draft Environmental Impact Statement*. Washington State Department of Transportation, Urban Corridors Office, Seattle, Washington.
- WSDOT (Washington State Department of Transportation), City of Seattle, and U.S. Department of Transportation, Federal Highway Administration. 2006.** *SR 99: Alaskan Way Viaduct & Seawall Replacement Project Supplemental Draft Environmental Impact Statement and Draft Section 4(f) Evaluation*. Washington State Department of Transportation, Urban Corridors Office, Seattle, Washington.

LIST OF PREPARERS

Name AFFILIATION	Contribution	Education Certifications/Licenses Professional Organizations	Years Experience
Sine Adams PARSONS BRINCKERHOFF	<i>Economics</i>	MUP Urban and Regional Planning BA Geography	4
Paul Arnold PARSONS BRINCKERHOFF	<i>Transportation</i>	MBA Seattle University BA Economics	20
Alex Atchison PARSONS BRINCKERHOFF	<i>Transportation</i>	BS Civil Engineering Professional Engineer (Washington) ITE, Women's Transportation Seminar	11
Ryan Avery PARSONS BRINCKERHOFF	<i>Transportation</i>	PhD Civil Engineering MS Civil Engineering BS Civil Engineering EIT (Colorado) APA, ITE	4
Julie Brandt PARAMETRIX	<i>Water Resources Technical Lead</i>	BS Civil Engineering Professional Engineer (Washington) Low Impact Design Certified	13
Stephanie Brown SEATTLE DEPARTMENT OF TRANSPORTATION	<i>Technical Review</i>	MRP City and Regional Planning MS Civil and Environmental Engineering BS Geoscience Professional Engineer (Washington)	8
James F. Burton PARAMETRIX	<i>Graphic Designer</i> <i>Technical Appendices</i>	Certificate of Graduation Advertising Art	27
Jennifer Caldwell PARAMETRIX	<i>Environmental Team</i> <i>Project Coordinator</i>	BS Biological Oceanography CESCL (Certified Erosion and Sediment Control Lead)	4
Bob Chandler SEATTLE DEPARTMENT OF TRANSPORTATION	<i>Management Oversight</i> <i>Editorial and Technical Review</i>		41
Gordon T. Clark PARSONS BRINCKERHOFF	<i>Alternative Development</i> <i>Facilities Design</i> <i>Underground Structures</i>	MS Engineering BS Civil Engineering Professional Engineer (Washington, New York, Texas)	27
Jill Czarnecki PARAMETRIX	<i>EIS Author and</i> <i>Technical Team</i>	BS Geology Certificate Technical Writing and Editing	12
Carter Danne PARAMETRIX	<i>Transportation</i>	BS Civil Engineering Professional Engineer (Washington)	11
Youssef Dehghani PARSONS BRINCKERHOFF	<i>Transportation Modeling</i>	PhD Civil Engineering MS Civil Engineering BS Civil Engineering Professional Engineer (Florida, Washington) ITE TRB Committee on Travel Demand Modeling/Forecasting International Association of Travel Behavior Research	37

LIST OF PREPARERS

Name AFFILIATION	Contribution	Education Certifications/Licenses Professional Organizations	Years Experience
Lorena Dinger PARAMETRIX	<i>Editor</i>	Certificate Technical Editing	11
Colin Drake PARAMETRIX	<i>EIS Author</i> <i>Park and Recreation,</i> <i>Public Services and Utilities</i> <i>Technical Lead</i>	MUP Urban Planning BA Human Biology APA	6
Boris Dramov ROMA DESIGN GROUP	<i>Urban Design Concepts</i>	Advanced Environmental Studies MS Urban Design BA Architecture Registered Architect (California, Florida, Texas, Oregon and Washington DC) National Council of Architectural Registration Board (Member) AIA (Fellow), AICP (Fellow)	32
Randy Everett FHWA	<i>Major Projects Oversight Manager</i>	BS Civil Engineering	20
Kimberly Farley WSDOT	<i>Management Oversight and</i> <i>Editorial Review</i>	JD BS Applied Engineering Geology	18
Debbie Fetherston PARAMETRIX	<i>EIS Team</i> <i>Document Production</i>		16
Kittie Ford SEATTLE DEPARTMENT OF TRANSPORTATION	<i>Technical Review</i>	MUP Urban Planning BS Zoology BA Science Education Professional Wetland Scientist	26
Jenna Friebe PARAMETRIX	<i>Water Resources</i>	MS Environmental Engineering BS Biology	12
Angela Freudenstein WSDOT	<i>Environmental Manager</i>	BA Natural Resource Management	10
Scott Gaulke SHANNON & WILSON	<i>Hazardous Materials</i>	MS Engineering Science BS Geology Professional Engineer (Washington) Licensed Hydrogeologist	26
Peter M. Geiger PARSONS BRINCKERHOFF	<i>Economics Technical Lead</i>	MS Physics BS Physics	21
Helen Ginzburg PARSONS BRINCKERHOFF	<i>Tunnel Air Quality Modeling</i>	MS Meteorology and Mathematical Modeling	30
Hina Golani PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Transportation Engineering BS Civil Engineering EIT (Michigan) Women's Transportation Seminar	5
Allison Hanson WSDOT	<i>WSDOT Senior Management Review</i>	BA Environmental Studies	12

LIST OF PREPARERS

Name AFFILIATION	Contribution	Education Certifications/Licenses Professional Organizations	Years Experience
Esther Howard PARAMETRIX	<i>Editor</i>	BS Environmental Studies Certificate Technical Writing and Editing Certificate Editing	7
Kevin Keller PARSONS BRINCKERHOFF	<i>Noise and Vibration Analysis</i>	BA Geography AICP	18
Ginette Lalonde PARSONS BRINCKERHOFF	<i>Air Quality and Noise Analysis</i>	BS Civil Engineering	11
Alice Lovegrove PARSONS BRINCKERHOFF	<i>Energy and Air Quality Analysis</i>	MS Environmental and Waste Management BE Engineering Science TRB Air Toxics Workshop	22
Anthony Lo PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Transportation Engineering BS Civil Engineering Professional Engineer (Washington) ITE, ASCE, PMI	14
Richard J. Martin SHANNON & WILSON	<i>Earth</i>	Licensed Hydrogeologist	20
David S. Mattern PARAMETRIX	<i>Environmental Team Manager</i> <i>EIS Author</i>	MA Geography BA Geography National Association of Environmental Professionals CEP	26
Stephanie Miller PARAMETRIX	<i>EIS Author</i>	BA Biology	15
Betsy J. Minden PARSONS BRINCKERHOFF	<i>Social Resources Technical Lead</i>	MUP Urban Planning BA Biology APA, AICP	30
Andrew Natzel PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Civil Engineering BS Civil Engineering Engineer in Training (South Dakota) ITE, ASCE	1
Monique A. Nykamp SHANNON & WILSON	<i>Earth Technical Lead</i>	MS Geotechnical Engineering Professional Engineer (Washington)	19
Carrie Oshiro PARSONS BRINCKERHOFF	<i>Transportation</i>	BA Geography and Economics Certificate Global Trade and Transportation Logistics Certificate International Economics APA, AICP	12
William P. Ott CONSTRUCTION CONSULTANT	<i>Constructability and Scheduling</i>	BS Civil Engineering BS Mechanical Technology	35
Hussein Rehmat PARSONS BRINCKERHOFF	<i>Social</i> <i>Land Use</i>	BA Community, Environment and Planning	2
Mike Rigsby PARSONS BRINCKERHOFF	<i>Project Director</i>	MS Operations Research BS Professional Engineer (Virginia, Washington)	35

LIST OF PREPARERS

Name AFFILIATION	Contribution	Education Certifications/Licenses Professional Organizations	Years Experience
Nicholas P. Roach PARSONS BRINCKERHOFF	<i>Transportation</i>	MPA Urban Planning BA Political Science Certificate Project Management ITE, APA, PMI, AICP	25
Stephen S. Rolle PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Civil Engineering BS Civil Engineering Professional Engineer (Washington, Connecticut) ITE, APA	17
Patrick Romero PARSONS BRINCKERHOFF	<i>Noise Analyst</i>	MS Environmental Science FHWA Traffic Noise Modeling Program	13
Kathleen Rossi PARAMETRIX	<i>Alternatives Description and</i> <i>Construction Methods</i>	MUP Urban Planning BS Environmental Studies	24
Mike Sallis WSDOT	<i>Environmental Manager</i>	BS Environmental Science and Regional Planning BSS Political Science	15
Kevin Sakai CONSTRUCTION CONSULTANT	<i>Constructability and Scheduling</i>	BS Civil Engineering	22
Madhavi Sanakkayala PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Civil Engineering BE Civil Engineering ITE, Women's Transportation Seminar	5
Larry Sauve PARSONS BRINCKERHOFF	<i>Transportation</i>	BA Architecture and Urban Planning Urban Land Institute	35
Jim Schettler JACOBS CIVIL INC.	<i>Engineering</i>	BS Civil Engineering Professional Engineer (Washington, Alaska) Structural Engineer (Washington) FEMA/ATC Post Earthquake Inspection Certification Confined Space Supervisor/Entrant/Attendant Certification	26
Jean Schwinberg PARAMETRIX	<i>Lead EIS Graphic Designer and</i> <i>Layout Artist</i>	MFA Painting BFA Painting Certificate Web Authoring Certificate International Economics New York Artists Equity	31
David Shelton PARSONS BRINCKERHOFF	<i>Transportation</i>	MCP City and Regional Planning BA Anthropology AICP, APA	12
Mimi Sheridan MIMI SHERIDAN, AICP	<i>Historic Resources Technical Lead</i>	MUP Specialization in historic preservation planning BA History and Political Science Society of Architectural Historians, Vernacular Architecture Forum, AICP	16
David Sherrard PARAMETRIX	<i>Visual Quality and</i> <i>Visual Simulations</i>	BA Geography AICP	33
Joel Soden PARSONS BRINCKERHOFF	<i>Air Quality Analysis and</i> <i>Technical Review</i>	MS Urban Affairs BS Chemical Engineering	40

LIST OF PREPARERS

Name AFFILIATION	Contribution	Education Certifications/Licenses Professional Organizations	Years Experience
Mark Stewart PARSONS BRINCKERHOFF	<i>PB Environmental Lead and Land Use Lead</i>	BLA Landscape Architecture BA Urban Planning American Planning Association National Association of Environmental Professionals	22
Edward Tadross PARSONS BRINCKERHOFF	<i>Energy and Air Quality Analysis</i>	BA Earth Science BA Environmental Studies	11
Amy Turner ENVIROISSUES	<i>Public Involvement Technical Lead</i>	BA Communication BA Foreign Languages and Literature Public Relations Society of America	8
Eric Tweit SEATTLE DEPARTMENT OF TRANSPORTATION	<i>Technical Review</i>	MS Civil Engineering BS Civil Engineering	24
Chris Wellander PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Civil Engineering BS Civil Engineering Professional Engineer (Washington) ITE, Tau Beta Pi, Phi Beta Kappa	29
Daryl Wendle PARAMETRIX	<i>Section 4(f)</i>	MA English BS English	20
Laura Wojcicki PARSONS BRINCKERHOFF	<i>Transportation</i>	BS Civil Engineering Engineer in Training (Michigan)	6
Steven Wolf PARSONS BRINCKERHOFF	<i>Mechanical Noise Analysis, Vibration and Technical Review</i>	BS Mathematics Graduate Work in Applied Mechanics	34
Dawn B. Wulf SHANNON & WILSON	<i>Hazardous Materials</i>	MS Environmental Science – Hazardous Waste Option BA Geology Licensed Geologist (Washington) Licensed Hydrogeologist	19
Liz Young PARSONS BRINCKERHOFF	<i>Transportation</i>	MS Transportation Planning BA Geography and Urban Studies AICP, APA, Women's Transportation Seminar, Leadership Tomorrow	14

DISTRIBUTION LIST

Stakeholder Advisory Committee Members

Warren Aakervik – Interbay/BINMIC
 Jeff Altman – Northwest County
 Chuck Ayers – Cascade Bicycle Club
 Mahlon Clements – Ballard/Fremont
 John Coney – Uptown/Queen Anne
 Bob Donegan – Seattle Historic Waterfront Commission
 Kathy Fletcher – People for Puget Sound
 David Freiboth – King County Labor Council
 Gene Hogle – Working Families for an Elevated Solution
 Mary Hurley – Ballard/Fremont
 Rob Johnson – Transportation Choices Coalition
 Mary McCumber – Futurewise
 Cary Moon – People’s Waterfront Coalition
 Don Newby – Southwest County
 Mike O’Brien – Sierra Club
 John Odland – Manufacturing Industrial Council
 Jim O’Halloran – Northeast Seattle
 Vlad Oustimovitch – West Seattle
 John Pehrson – Belltown
 Peter Philips – Seattle Marine Business Coalition
 Susan Ranf – Sports Stadiums
 Earl Richardson – Southeast Seattle
 Rob Sexton – Downtown Seattle Association
 Pete Spalding – West Seattle
 Sue Taoka – International District
 Herald Ugles – International Longshore & Warehouse Union
 Todd Vogel – Allied Arts
 Tayloe Washburn – Greater Seattle Chamber of Commerce

North Portal Working Group

Glenn Avery – Queen Anne Community Council
 David Brown – Pacific Northwest Ballet
 Sharon Coleman – Vulcan
 John Coney – Uptown Alliance
 David Delfs – Magnolia/Queen Anne/South Lake Union
 Design Review Board
 Tom Graff – Belltown Business Association
 Bob Grossman – South Lake Union Community Council
 Ron Hildebrandt – Trident Seafoods at Interbay
 David Hiller – Cascade Bicycle Club
 Kevin Hughes – Pacific Science Center
 John Kane – BINMIC
 Bill LaBorde – Transportation Choices Coalition
 Thomas Tanner – Magnolia Community Club
 Robert Nellams – Seattle Center
 Lee Newgent – Seattle/KC Building & Construction Trades Council
 Vince O’Halloran – Puget Sound Ports Council & Sailors Union of the Pacific
 Kim Suelze – CityIce Cold Storage

Marko Tubic – Fremont Chamber of Commerce
 Lisa Verhovek – Bill & Melinda Gates Foundation
 Bob Viggers – Charlie’s Produce
 Elaine Wine – Ballard Neighborhood

South Portal Working Group

Linda Anderson – Amalgamated Transit Union
 Bill Bloxom – Bloxom Company
 Jerome Cohen – West Seattle Chamber of Commerce
 Barbara Cole – International District
 Lisa Dixon – The Alliance for Pioneer Square
 Al Hobart – Joint Council of Teamsters No. 28
 John Huey – Viking Bank
 Ron Kieswether – Oak Harbor Freight Lines
 Don Newby – Burien
 John Odland – MacMillan-Piper
 Marty Oppenheimer – South Park
 Vlad Oustimovitch – West Seattle
 Mike Peringer – SODO Business Association
 Lisa Quinn – Feet First
 Susan Ranf – Seattle Mariners
 Paul Schieck – Seattle Seahawks
 Ed Shilley – Nucor Steel
 Pete Spalding – Delridge
 Brent Stavig – Starbucks
 Herald Ugles – International Longshore and Warehouse Union
 Bill Weise – Silver Cloud Inn
 Cynthia Welti – Mountains to Sound Greenway Trust

Central Waterfront Working Group

Warren Aakervik – Ballard Oil
 Zander Batchelder – Belltown Community Council
 Patrick Binion – Columbia Distributers
 Carol Burton – Magnolia/Queen Anne District Council
 Craig Curtis – American Institute of Architects
 Karen Daubert – Seattle Parks Foundation
 Bob Davidson – Seattle Aquarium Society
 Bob Donegan – Seattle Historic Waterfront Coalition
 David Freiboth – King County Labor Council
 Adam Hasson – Alliance for Pioneer Square
 Dave Janis – Bicycle Alliance of Washington
 Cary Moon – People’s Waterfront Coalition
 Ralph Pease – Argosy
 Chas Redmond – Feet First
 Ron Severt – Space Needle
 Rob Sexton – Downtown Seattle Association
 Brian Steinburg – Allied Arts
 Heather Trim – People for Puget Sound
 Mark Wainwright – Admiral Neighborhood Association
 Tayloe Washburn – Greater Seattle Chamber of Commerce

Peter Whitehead – Nelson Trucking
 Leila Wilke – Seattle Art Museum/Olympic Sculpture Park

Business/Trade/Other Organizations

Belltown Business Association
 BNSF
 Graham & Dunn
 Historic Seattle
 Pike Place Market PDA
 Pioneer Square Historic Preservation Board
 Seattle Aquarium
 Seattle Parks Board
 Union Pacific Railroad
 Washington State Public Stadium Authority
 Washington Trust for Historic Preservation

Libraries

Ballard Branch, City of Seattle Library
 Burien Library, King County Library System
 Capitol Hill Branch, City of Seattle Library
 Central Library, City of Seattle Library
 Delridge Branch, City of Seattle Library
 North East Branch, City of Seattle Library
 Seattle Central Community College Library
 Shoreline Library, King County Library System
 Sound Transit Information Center
 University of Washington – Engineering Library
 University of Washington – Architecture and Urban Planning Library
 Washington State Library
 Washington State Department of Transportation Library

Neighborhood Service Centers

Ballard Neighborhood Service Center
 Capitol Hill Neighborhood Service Center
 Central Neighborhood Service Center
 Delridge Neighborhood Service Center
 Downtown Neighborhood Service Center
 Greater Duwamish Neighborhood Service Center
 Greenwood Neighborhood Service Center
 Lake City Neighborhood Service Center
 Lake Union/Fremont Neighborhood Service Center
 Southeast Neighborhood Service Center
 University District Neighborhood Service Center
 Queen Anne/Magnolia Neighborhood Service Center
 West Seattle Neighborhood Service Center

Elected Officials

FEDERAL
 U.S. Senator Patty Murray
 U.S. Senator Maria Cantwell

U.S. Representative Brian Baird
 U.S. Representative Norm Dicks
 U.S. Representative Doc Hastings
 U.S. Representative Jay Inslee
 U.S. Representative Rick Larson
 U.S. Representative Jim McDermott
 U.S. Representative Cathy McMorris
 U.S. Representative Dave Reichert
 U.S. Representative Adam Smith

STATE OF WASHINGTON

Governor Christine Gregoire
 Lt. Governor Brad Owen
 Attorney General Rob McKenna
 Senator Mary Margaret Haugen – 10th District
 Senator Margarita Prentice – 11th District
 Representative Bob Hasegawa – 11th District
 Representative Zack Hudgins – 11th District
 Senator Darlene Fairley – 32nd District
 Representative Maralyn Chase – 32nd District
 Representative Ruth Kagi – 32nd District
 Senator Joe McDermott – 34th District
 Representative Eileen Cody – 34th District
 Representative Sharon Nelson – 34th District
 Senator Jeanne Kohl-Welles – 36th District
 Representative Reuven Carlyle – 36th District
 Representative Mary Lou Dickerson – 36th District
 Senator Adam Kline – 37th District
 Representative Eric Pettigrew – 37th District
 Representative Sharon Tomiko Santos – 37th District
 Senator Ed Murray – 43rd District
 Representative Frank Chopp – 43rd District
 Representative Jamie Pedersen – 43rd District
 Senator Ken Jacobsen – 46th District
 Representative Phyllis Gutierrez Kenney – 46th District
 Representative Scott White – 46th District
 Transportation Commissioner Bob Distler
 Transportation Commissioner Richard Ford
 Transportation Commissioner Elmira Forner
 Transportation Commissioner Carol Moser

CITY OF SEATTLE

Mayor Mike McGinn
 Councilmember Sally Bagshaw
 Councilmember Tim Burgess
 Councilmember Sally Clark
 Councilmember Richard Conlin
 Councilmember Jean Godden
 Councilmember Bruce Harrell
 Councilmember Nick Licata

Councilmember Mike O'Brien
Councilmember Tom Rasmussen

PORT OF SEATTLE

Tay Yoshitani – Port of Seattle Chief Executive Officer
Tom Albro – Port of Seattle Commissioner
Bill Bryant – Port of Seattle Commissioner
John Creighton – Port of Seattle Commissioner
Rob Holland – Port of Seattle Commissioner
Gail Tarleton – Port of Seattle Commissioner

KING COUNTY

Executive Dow Constantine
Councilmember Bob Ferguson – District 1
Councilmember Larry Gossett – District 2
Councilmember Kathy Lambert – District 3
Councilmember Larry Phillips – District 4 – Chair
Councilmember Julia Patterson – District 5
Councilmember Jane Hague – District 6
Councilmember Pete von Reichbauer – District 7
Councilmember Jan Drago – District 8
Councilmember Reagan Dunn – District 9

Media

Asian Weekly/Seattle Chinese Post
Daily Journal of Commerce
Filipino American Herald
International Examiner
KUOW
NW Vietnamese Weekly
Publicola
Puget Sound Business Journal
Seattle PI.com
Seattle Skanner
Seattle Times
Seattle Weekly
The Hispanic News
The Seattle Medium
The Stranger
Real Change
West Seattle Blog

Tribes

Duwamish
Muckleshoot Indian Tribe
Snoqualmie Indian Tribe
Suquamish Tribe
The Tulalip Tribes
Confederated Tribes and Bands of the Yakama Nation

Federal Agencies

Advisory Council on Historic Preservation
Department of the Interior
Environmental Protection Agency, Region 10
Federal Highway Administration
Federal Transit Administration
National Marine Fisheries Service
National Park Service
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Fish and Wildlife Service
U.S. General Services Administration

State Agencies

Washington State Department of Archaeology and Historic Preservation
Washington State Department of Ecology
Washington State Department of Fish and Wildlife
Washington State Department of Natural Resources

Local Agencies

City of Seattle
King County
Port of Seattle
Puget Sound Clean Air Agency

TECHNICAL INDEX**Subject**

	Chapter 1 Introduction	Chapter 2 Summary	Chapter 3 Alternatives Development	Chapter 4 The Project Area	Chapter 5 Bored Tunnel Alternative	Chapter 6 Construction	Chapter 7 Cumulative Effects	Chapter 8 Comparison of Alternatives	Chapter 9 Tolling	Draft Section 4(f) Evaluation
Alternatives Description		11-14	45-48, 59-63		93-96					
Alternatives Development	2-3	12	44-66							
Alternatives Not Considered in Detail			53-55							
Areas of Controversy		42								
Cumulative							161-175	200		
Indirect Effects					127	154		200		
Irreversible Decisions & Irretrievable Resources					127-128			200-201		
Issues to be Resolved		42								
Logical Termini	1									
No Build Alternative			63-64							
Project Description	1									
Public Involvement		41	64-66			159				
Purpose and Need	4-5							201-203		229
Section 4(f)		31								224-244
Short-Term Resource Uses & Long-Term Gains of Project					128			201		
Unavoidable Adverse Effects					129					

TECHNICAL INDEX	Chapter 1 Introduction	Chapter 2 Summary	Chapter 3 Alternatives Development	Chapter 4 The Project Area	Chapter 5 Bored Tunnel Alternative	Chapter 6 Construction	Chapter 7 Cumulative Effects	Chapter 8 Comparison of Alternatives	Chapter 9 Tolling	Draft Section 4(f) Evaluation
Subject										
Affected Environment, Impacts, and Mitigation (alphabetical order)										
Air Quality		25, 35		85	124	152, 158-159	173	193, 199	222	
Archaeological & Cultural Resources		23, 33		70, 81-82	120-121	149, 157-158	172-173	192, 199	222	235-236, 239
Economics		22, 33		84-85	119	144-145, 156	172	192, 198		
Energy		25, 35		86	124-125	152-153, 158-159	173		222	
Environmental Justice		24, 34, 41		84	122	150-151, 158		192-193	219, 222	
Fish and Wildlife		26, 35		88	125	154, 159	173-174	195, 200		
Geology and Soils		26, 35		69-70	126-127	131-132, 141-142, 154-155	174	200		
Greenhouse Gases		25, 35		86	124	152, 159	173		222	
Groundwater		26		89	126-127	142, 159	174			
Hazardous Materials		35		89		141-142, 154-155	174			
Historic Resources		23, 31		81-82	120-121	148-149, 156-157	172-173	192, 198	222	229, 231-234, 236-240
Land Use		21, 34-35		81	118-119		172	191		
Noise		21, 31		79-80	112-114	142-143, 155	169, 170, 171	191, 197	222	
Parks and Recreation		24, 34		82-83	122-123	151, 158	173	193, 199		229
Public Services and Utilities		25, 35		85	123	151-152, 158	169, 173	193, 199		
Relocations		34-35			117-118	144, 155-156		191		
Social Resources (neighborhoods)		23-24, 34		83-84	121-122	149-151, 158	173	192-193, 199		
Transportation										
Access		15-20, 28-30		73-75	96-108	136-140, 154	163-168	178-188, 195-197		
Bicycles		30-31		78	111	141, 154	168	190		
Ferries		30-31		77	110	140-141, 154	168	190		
Freight		22, 30		75-76	109	140, 154	168	189		
Parking		22-23, 32-33		79	119-121	145-148, 156	169, 170	192, 198		
Pedestrians		30-31		78	111	141, 154	168	190		
Transit		30		77	109-110	140, 154	168	189-190	215	
Travel Time		16-17, 19	55, 57		100-102, 108, 110		165-166	182-183	209, 212, 215	
Vibration		34		80		143, 155		197-198		
Visual Quality		22, 34		80-81	114-117	144, 155	172	191, 198		
Water Quality and Sediments		25-26, 35		86-88	125	153, 159	173	193, 195, 199-200		



Governor Christine O. Gregoire
State of Washington

Executive Ron Sims
King County

Mayor Gregory J. Nickels
City of Seattle

**A Letter of Agreement
Between the State of Washington, King County, and the City of Seattle**

January 13, 2009

**Consensus on the Recommended Alternative for Replacing the
Alaskan Way Viaduct & Seawall**

Over the course of the last 18 months, after developing and evaluating numerous scenarios, the State of Washington, City of Seattle, and King County have reached consensus on replacement for the SR 99 Alaskan Way Viaduct and Seawall.

We have decided jointly that a four-lane bored tunnel, together with improvements to city streets, the city waterfront, and transit, is the recommended alternative for replacing the existing viaduct, referred to as "The Project." This letter represents the governments' commitment to this solution and outlines responsibilities for funding and implementation.

The total estimated cost of this solution is approximately \$4.24 billion and the allocation of specific project responsibility to each jurisdiction carries with it the responsibility for project management, environmental work, design, construction, and project cost overruns.

The State of Washington is responsible for taking down the existing viaduct structure, building a bored tunnel from approximately north of S. Royal Brougham Way to Harrison St., providing a surface connection from approximately Yesler Way to Elliott Avenue, completion of the projects associated with the Moving Forward program and partial construction transportation mitigation. The total estimated cost to the State of this work is \$2.82 billion.

King County is responsible for additional Rapid Ride and peak express bus service to downtown Seattle. In addition, the County will simplify downtown trolley service and provide city street improvements related to improved bus operations. The total estimated cost of this work for King County is \$190 million in capital and \$15 million in annual operating expenses which shall be paid for through a countywide 1% Motor Vehicle Excise Tax imposed by the King County Council for transit services.

The City of Seattle is responsible for Seattle public utility relocation costs associated with the project, a promenade along the central waterfront, other city street improvements, and a First Avenue streetcar. The total estimated cost of this work for the City is \$937 million.

The Port of Seattle is being asked to contribute \$300 million to portions of the program that benefit their operations.

The parties agree to seek state legislative approval of the project and will support efforts to obtain state legislative authority for King County to implement a 1% Motor Vehicle Excise Tax. In addition, the parties agree to support efforts to obtain local authority for the development of a Local Infrastructure Financing Tool. The parties further agree to support an \$88 million allocation of anticipated federal economic recovery funds, currently distributed as \$8 million to King County for transit facilities and \$80 million to the City of Seattle for portions of the Mercer and Spokane Street projects, which will be ready for construction by the summer of 2009.

Eight years ago the Nisqually earthquake warned us of the dangers posed by the existing viaduct. After years of extensive review and discussion, today we join together calling for action. We are confident that a bored tunnel replacement, with improvements to transit and city streets, is the best solution for Seattle, the region and the state.

Sincerely,

Governor Christine O. Gregoire
State of Washington

Executive Ron Sims
King County

Mayor Gregory J. Nickels
City of Seattle

COMMENT FORM

All comments must be received by December 13, 2010

Use the form on this page to send your comments on this Supplemental Draft EIS to the lead agencies. All comments received by December 13, 2010 will have a response in the Final EIS. Additional comments, or if the form has already been used, should be sent to:

WSDOT
Attn: Angela Freudenstein, Project Environmental Manager
AWV Project Office (Wells Fargo Building)
999 Third Avenue S., Suite 2424
Seattle, WA 98104-4019

Comments can also be sent by email to:
awv2010sdeiscomments@wsdot.wa.gov

Alaskan Way Viaduct Replacement Project 2010 Supplemental Draft EIS Comment Form

Please use this form to give us comments on the Supplemental Draft Environmental Impact Statement (EIS) for the Alaskan Way Viaduct and Seawall Replacement Project. The comments you make will become part of the public record for this project. Responses to your comments will be provided in the Final EIS.

Contact Information

Check here if you would like to be added to the project mailing list. At a minimum, please provide your name and zip code. If you would like to be added to the project mailing list, please fill out the rest of the contact information and check the box above.

Name _____
Address _____
City _____ State _____ Zip _____
E-mail _____
Organization/Membership Affiliations _____
(optional)

Choose a topic

- | | | |
|---|---|--|
| <input type="checkbox"/> Overall Project | <input type="checkbox"/> Cut-&-Cover Tunnel Alternative | <input type="checkbox"/> Construction Impacts & Mitigation |
| <input type="checkbox"/> All of the Alternatives | <input type="checkbox"/> Elevated Structure Alternative | <input type="checkbox"/> Traffic Impacts & Mitigation |
| <input type="checkbox"/> Bored Tunnel Alternative | <input type="checkbox"/> Tolling Option | <input type="checkbox"/> Other _____ |

What are your comments about the Project?

Your answers to the questions below will let the agencies know if the Supplemental Draft EIS format was helpful. Your answers

to these questions are not part of the EIS process and they will not receive a response.

- | | |
|--|---|
| 1. Is this the first EIS you have read?
<input type="checkbox"/> Yes <input type="checkbox"/> No | 4. Did the graphics help make the Supplemental Draft EIS easier to review and understand?
<input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. Have you previously participated in public meetings/comment periods related to the AWV project?
<input type="checkbox"/> Yes <input type="checkbox"/> No | 5. Did you refer to the technical appendices?
<input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. Did you find this Supplemental Draft EIS format easy to understand?
<input type="checkbox"/> Yes <input type="checkbox"/> No Why or why not? | 6. What did or didn't you find helpful when reading this Supplemental Draft EIS? |

Place
Stamp
Here

WSDOT

Attn: Angela Freudenstein, Project Environmental Manager
AWV Project Office (Wells Fargo Building)
999 Third Avenue S., Suite 2424
Seattle, WA 98104 – 4019