Submitted by:
P A R S O N S  B R I N C K E R H O F F

Prepared by:
P A R A M E T R I X
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Thank you for sharing your thoughts and comments related to our work to develop and screen a broad range of alternatives. We appreciated EPA’s contribution to the Resource Agency Leadership Forum (RALF), and your continued participation as the project has moved forward. We acknowledge EPA’s rating of Lack of Objections to the Draft EIS.

Some public comments requested that the lead agencies study the possibility of not replacing the viaduct. The lead agencies responded to this request by initiating a study to determine whether a no replacement viaduct concept was feasible. This study, called the AWV No Replacement Concept, was made available to the public and shared with EPA and other agencies.

The study assumed the viaduct would be replaced with a four-lane surface street on Alaskan Way. It also assumed that transit would be increased, improvements would be made to the downtown street system, transportation demand management strategies would be employed, and some changes would be made to I-5. Even with the most optimistic assumptions, the study found that city streets, I-5, and surface Alaskan Way would be severely congested from early morning until late evening.

- Traffic on surface Alaskan Way would quadruple along the central waterfront; 35,000 to 56,000 vehicles per day would use this section of roadway compared to about 10,000 today. Increased traffic would not create a livable and pedestrian-friendly waterfront for residents and tourists.
- Downtown street traffic would increase by 30 to 50 percent, with the greatest increase in Pioneer Square and on the waterfront. City streets would be congested for much of the day.
- Vehicle demand on I-5 would grow by 24,000 - 33,000 vehicles per
The no-action alternative you have described in the EIS because it proposes dismantling the Viaduct deliberately, and planning for alterations or expansion of other streets in the downtown area to replace traffic capacity from the Viaduct. Since this is a proposal not analyzed in the draft EIS, we recommend that the Final EIS address the effectiveness of this alternative in achieving the project purpose and need so that the public and the decision makers may have a final opportunity to evaluate how it compares to other alternatives prior to selection of the preferred alternative.

Hazardous Waste

In our scoping comments, we discussed our concerns with the handling of hazardous materials as an incidental part of construction of a replacement or rebuilt Viaduct. This could include sediment, groundwater, and construction process water. The project team has since taken major steps toward identifying locations where hazardous material is likely to be located, what contaminants are likely to be present, and how such material might be treated, remediated, or controlled in place, transported, and disposed, and which entity(ies) would be responsible for these tasks. We appreciate your successful efforts to resolve these questions at the earliest possible time.

Native American Coordination

We advised the lead agencies in our scoping comments to consult early with potentially affected Native American Tribes for their views on the effects of this project on Tribal treaty fishing areas. The EIS does a thorough job of documenting the coordination with potentially affected Tribal groups in regard to archeological sites and important cultural places, but the EIS should also include information on whether treaty fishing areas may be potentially affected and whether Tribes have been consulted. As we noted in our scoping comments, if Tribes report issues such as precluded access to tribal fishing, the Federal government may have to resolve this through government to government consultations, consistent with the out trust responsibility to Native Americans, prior to the initiation of construction.

Effects on Aquatic Resources

In our scoping letter of February 2002, we suggested that you “consider including aquatic habitat restoration as an additional part of the purpose and need statement. Habitat restoration ... may become an integral part of the project, requiring considerable effort and planning.” The draft EIS states that all alternatives would include restoration of habitat functions along the central Seattle waterfront to mitigate project effects, and that enhancements beyond those required for mitigation might be undertaken to restore habitat functions that no longer exist along the shoreline.

The project team organized a conference during scoping in which experts on marine habitat in central Puget Sound presented a wealth of information on current research and opportunities for habitat enhancement and restoration in the project vicinity. While it is not yet certain if the U.S. Army Corps of Engineers will also be a lead agency for the seawall portion of this project and at least partially responsible for determining aquatic resource mitigation requirements, plans for habitat enhancements, particularly if needed for mitigation, are more

Based on these findings, the lead agencies determined the no replacement concept clearly does not meet the project’s purpose and need statement, “that maintains or improves mobility and accessibility for people and goods along the existing Alaskan Way Viaduct Corridor.”

F-001-003
The project team has continued to study contamination in the project corridor to determine construction mitigation measures. Please refer to Chapter 8 of the Final EIS for information on construction mitigation measures related to hazardous waste.

F-001-004
The lead agencies have consulted with the Tribes on tribal fishing and other issues as the project has progressed. Information learned from these discussions is contained in the Final EIS. The design team has expended considerable effort to redesign the Cut-and-Cover Tunnel Alternative to minimize the amount of in-water work, thereby minimizing the potential effects of the project on Native American fishing rights. The lead agencies will continue to consult with the federal agencies and the Tribes to ensure coordination throughout the project.

The preferred Bored Tunnel Alternative does not include any in-water work that would necessitate impacts to tribal fishing activities or areas.
The lead agencies will continue to work closely with resource agencies through the environmental review and permitting process. We appreciate the positive contributions EPA staff have made to the project and hope they will continue to participate. As suggested by the comment, mitigation for habitat impacts is presented in more detail in the Final EIS where appropriate. However, the term conceptual mitigation is not well-defined and is often interpreted differently by various parties. The project's intent is to show project impacts can be mitigated and potential habitat enhancements provided at a level of detail commensurate with the decision at hand.

Thank you for your encouraging comments about the format of the Draft EIS. We appreciate your ideas on how we can improve on the format of the Draft EIS. These ideas will help us to refine the reader-friendly approach for future documents.

We think Chapter 2 of the Draft EIS does a good job comparing the alternatives and highlighting key issues and trade-offs. This chapter contains important information that distinguishes and compares the alternatives. We chose not to develop a table because it would have been unwieldy due to all the information it would need to convey, and it would not have been as effective as the combination of graphics, tables, and text we created to compare the alternatives. We will strive to incorporate tools into the summary chapter that will help make key issues and comparisons clear for all audiences as we continue to refine and further develop more reader-friendly EIS formats.

We appreciate your comment related to document organization and format. Federal and state environmental regulations and guidance give project proponents flexibility in how EIS documents are organized, and we recognize there are many trade-offs associated with how EISs are
organized. After thinking about the trade-offs, our team decided to "tell the story" of each alternative as a separate chapter. We did this because several alternatives and options were evaluated. By separating the alternatives discussion into five chapters, we were able to give readers a clear picture of how each alternative would affect various aspects of the environment. We developed Chapter 2, the Comparison of Alternatives chapter, to help readers easily compare the alternatives. Information that distinguishes the alternatives and highlights key issues are compared in Chapter 2. Much of the information contained in Questions 1-8 in Chapters 5-9 is summarized in some form in Chapter 2, specifically questions 3-14. We acknowledge that this EIS approach may make review more difficult for some. The index on page 161 outlines a more traditional EIS format and shows readers where they can quickly find the information they are looking for. The lead agencies considered your comments as outlines for future EIS documents were developed.

We acknowledge your comment regarding coordination between the technical reports and the main body of the EIS. We strive to strike a reasonable balance between the extensive technical information in the discipline reports and what is brought forward into the main EIS. The Final EIS refers readers to the technical reports if they are interested in additional information on a particular subject.
U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections
The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns
EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objectives
EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory
EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussions should be included in the final EIS.

Category 3 – Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the actions, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Allison Ray  
WSDOT Environmental Coordinator  
AWV Project Office  
9993rd Avenue, Suite 2424  
Seattle, WA 98104

May 28, 2004

Dear Ms. Ray,

The purpose of this letter is to provide you with comments from the Federal Transit Administration (FTA) on the SR 99: Alaskan Way Viaduct & Seawall Replacement Project Draft Environmental Impact Statement (DEIS). As you are aware, FTA is a federal cooperating agency for this National Environmental Policy Act (NEPA) analysis. As such, FTA would typically review the EIS for transit-related impacts. However, given the dramatic style change for this document and understanding that the Washington State Department of Transportation (WSDOT) may wish to use a similar approach for future NEPA documents that may have FTA as a federal lead or co-lead agency, we have reviewed the DEIS in greater detail.

We commend WSDOT and FHWA on the new approach. We appreciate your consideration of the attached comments and look forward to continued collaboration on transportation projects in Washington. Please contact Jennifer Bowman at 206.220.7953 if you have any questions.

Sincerely,

R.F. Krochalis  
Regional Administrator

Enclosure

cc:  Kim Farley, WSDOT  
     Carol Lee Rokkova, WSDOT  
     Sharon Love, FHWA
Thank you for providing your agency’s ideas and feedback about the format of our 2004 Draft EIS. We appreciate your helpful suggestions and have incorporated many of them into the 2006 and 2010 Supplemental Draft EISs and Final EIS.

As suggested, we added a more detailed Table of Contents to the Supplemental Draft EISs and the Final EIS. In the 2004 Draft EIS, we developed two tools to help guide regulatory reviewers through the document: a technical index (see page 161 of the Draft EIS) and an annotated outline with legal references (see Appendix Y of the Draft EIS). These tools are also contained in the 2006 and 2010 Supplemental Draft EISs. The technical index is organized by NEPA/SEPA required topics (such as logical termini, cumulative effects, and historic resources) and page numbers to help direct reviewers to NEPA/SEPA required information by topic. This index and the detailed Table of Contents are included in the Final EIS.

We considered your comments related to mitigation planning as we developed the Final EIS. The lead agencies have been working closely with the public and regulatory agencies to develop and discuss mitigation plans. This dialogue will continue through the environmental review process and, as needed, throughout construction.

The environmental scoping process, screening process, and overall decision-making structure was discussed in the 2004 Draft EIS in Chapter 4. Additional information on this topic was provided in Chapter 2 of the Supplemental Draft EIS published in 2006. The Summary chapter of the Final EIS contains information describing the decision-making process used to select the preferred alternative.
A Memorandum of Agreement (MOA) has been developed between WSDOT and the Puget Sound Clean Air Agency (PSCAA). The MOA will help eliminate, confine, or reduce construction-related emissions for WSDOT projects. This MOA will apply to the Alaskan Way Viaduct Replacement Project. Chapter 6, Construction Effects, of the Final EIS for discussion of the effects during construction of the build alternatives and Chapter 8 presents the proposed mitigation measures.

The 2004 Draft EIS incorporated by reference the screening reports that discussed the screening process in detail. Specifically, the sidebar on page 56 in Chapter 4 of the Draft EIS referenced readers to the project screening reports if they are interested in learning more about the screening process. The screening process involved early analysis by the project team and discussions with community groups at more than 140 community meetings and community interviews, including businesses along the corridor. A total of 76 initial viaduct replacement concepts and seven seawall concepts were considered; and concepts that were not feasible, or were outside the purpose of the project were dropped from further consideration. The most workable ideas were shaped into the alternatives analyzed in the Draft EIS. Further screening and analyses were conducted for the 2006 and 2010 Supplemental Draft EISs and Final EIS. The alternatives analyzed include a range of viaduct repair and replacement designs with some elements of earlier concepts combined with other design structures as the engineering team looked at feasibility, cost, and other criteria.

The Transportation Discipline Report, Appendix C of the Final EIS, provides maps showing alternate pedestrian and bicycle facility routing during project construction as well as final configuration of the facility.
Access to businesses will be maintained throughout construction. Temporary access limitations and any required changes to access during construction will be mitigated to the extent practicable. A primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. Chapter 8 of the Final EIS discusses the project’s proposed mitigation measures during construction.

Economic mitigation strategies for other types of impacts to businesses during construction are presented in the Final EIS. These start at the corridor level with a master list of potential mitigation measures (similar to that contained in the Draft EIS). Those measures will then be matched with specific impacts by business district (Stadium Area Interchange, Pioneer Square, central waterfront, etc.). Finally, as construction nears, the plan would be fine-tuned by phase and specific business/facility impacts and location.

Any substantive comments received on the Final EIS will be addressed in the ROD.

The preferred alternative was disclosed in the 2010 Supplemental Draft EIS, which included an environmental justice analysis and determination. The Record of Decision will report on comments received on the Final EIS, and will respond appropriately.

In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged
business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.

F-002-009

The exact changes in access to Colman Dock as a result of this project are not yet determined and, therefore, are not shown in the Final EIS. If the preferred Bored Tunnel Alternative is selected, the final configuration of Alaskan Way will be determined as part of the City of Seattle's Central Waterfront Project. However, the project will continue its coordination work with Washington State Ferries for any developments affecting Colman Dock during the project's construction.

F-002-010

Overall project costs are included with the project description and are used for the analysis of economic impacts. Cost estimates for mitigation are included in the overall project costs. These estimates, along with other cost estimates, are refined as the planning and design process proceeds and details are developed. All cost estimates allow for escalation and inflation and include contingencies for unforeseen events. The project is included in the financially-constrained long range plan adopted by the Puget Sound Regional Council (the area's Metropolitan Planning Organization, or MPO). Cost estimates for the alternatives evaluated in the Final EIS are:

- Bored Tunnel – $1.96 billion
- Cut-and-Cover Tunnel – $3.0 to $3.6 billion
- Elevated Structure – $1.9 to $2.4 billion

These cost estimates do include different elements. The Bored Tunnel Alternative cost does not include replacing the seawall, improving the Alaskan Way surface street, or building a streetcar. Costs for the Cut-
and Cover Tunnel and Elevated Structure Alternatives do not include replacing the seawall between Union and Broad Streets.

F-002-011
The Final EIS will include the Department of Ecology designation for each applicable water body. A general overview of applicable standards will also be included.

F-002-012
Subsequent to the Draft EIS, a Biological Assessment (BA) was prepared for the preferred Bored Tunnel Alternative. The effect determination for Chinook salmon is “may affect, likely to adversely affect”; the determination for bull trout is “may affect, not likely to adversely affect.” The ESA consultation is now complete.

F-002-013
Construction haul routes and any associated impacts are identified in the Final EIS and Appendix C, Transportation Discipline Report.

Potential overwater construction staging areas are discussed in Appendix B, Alternatives Description and Construction Methods Discipline Report. The Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report, discusses the potential for some delivery and removal of construction materials by barge in the construction effects chapter.

F-002-014
The Final EIS and Appendix H, Social Discipline Report, address the temporary displacement of the Washington Street Boat Landing during construction as part of the Cut-and-Cover Tunnel and Elevated Structure Alternatives. The pergola facility would be restored and replaced in nearly the same footprint at the edge of the water after construction as it
is today. This effect is discussed in Chapter 6 in the Final EIS.

Seattle Parks and Recreation, which owns and maintains the in-water portion of the facility, removed the boat landing docks many years ago, and currently has no plans to change its use or function.

F-002-015
Additional maps have been provided in the Final EIS. Specifically, the following elements have been incorporated as suggested:

1. "Downtown" has been clarified as it relates to travel times.
2. We’ve clarified the year of analysis as 2030.
3. Maps showing planned detours have been provided as suggested.
4. Your comment to add a map showing traffic effects to other parallel streets is acknowledged; instead of adding a map, we revised the text to make it more clear.

Please note that the intersection improvements at S. Atlantic Street and S. Royal Brougham Way meant to improve access between SR 99 and SR 519 and the new ramps, railroad and ferry access mentioned on page 88 of the Draft EIS were covered under the SR 99 - S. Holgate Street to S. King Street Viaduct Replacement Project, which began construction in 2010.

F-002-016
The construction plans evaluated for noise and vibration are described in Appendix B, Alternatives Description and Construction Methods Discipline Report of the Final EIS. While actual construction plans and activity sequencing could differ from this evaluation, the locations and types of activities would be similar under the final sequence.

The City of Seattle Department of Planning and Development typically grants temporary noise variances to construction projects with nighttime
work activities if there is no practical means to work within the City noise ordinance. The long duration and unique nature of the Alaskan Way Viaduct Project requires an extended temporary technical variance from the City in order to complete the project on time. Obtaining this type of technical variance involves a public hearing process that influences the final decisions and stipulations made by the City, which sets forth contextually sensitive noise mitigation measures to which the applicant is required to abide.

**F-002-017**

The Final EIS contains the information requested. The number of existing public parking spaces in the study area is presented in Chapter 4. The number of parking spaces permanently affected by the project is presented in Chapter 5 and the number of parking spaces temporarily affected during construction is presented in Chapter 6.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT's studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

F-002-018
Based on current project planning, Fire Station #5 would remain in place and would no longer be temporarily relocated during construction, as discussed in the 2004 Draft EIS.

F-002-019
The wording suggestion is appreciated. In the 2006 Supplemental Draft EIS, we used this suggested wording for a similar sentence in Question 10 of Chapter 5, which stated "no residential units would be acquired."

F-002-020
Staging areas have been identified and discussed in the Final EIS in Chapter 6.
F-002-021
The Surface Alternative was eliminated from further study, as described in the 2006 Supplemental Draft EIS.

F-002-022
The Waterfront Streetcar is not currently operating along Alaskan Way S. but could operate again in the future. The lead agencies will continue to coordinate with King County Metro, the operator of the Waterfront Streetcar, regarding future plans for the streetcar. Note that under the Bored Tunnel Alternative, the City of Seattle will lead planning of improvements along the central waterfront, including the Waterfront Streetcar.

The construction plans for the project have evolved since the publication of the 2004 Draft EIS. Please see Chapter 6 in the Final EIS for a summary of the construction plans for each alternative. Appendix B, Alternatives Description and Construction Methods Discipline Report, discusses construction in more detail.

See the Transportation Discipline Report, Appendix C, of the Final EIS for information about transit during construction.

F-002-023
The Final EIS describes transportation mitigation measures, including measures relating to the coordination of planning and implementation efforts by transit operators and other agencies as appropriate. Also refer to the Transportation Discipline Report, Appendix C of the Final EIS for a more detailed discussion of transportation mitigation measures.

The ROD will address any comments received on the Final EIS as appropriate.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

The Bored Tunnel Alternative would not replace the seawall; the replacement of the seawall would be done as part of a separate project lead by the City of Seattle. That project will identify restoration and mitigation options for effects to the shoreline habitat from the replacement of the seawall. The Bored Tunnel Alternative also would not
require any in-water work. The proposed stormwater treatment and water quality BMPs have been improved for all the build alternatives since the publication of the 2004 Draft EIS. Please see the Final EIS for current project analysis.

**F-003-002**

This discipline report has been revised significantly since 2004 to support the 2006 and 2010 Supplemental EISs and the Final EIS. The phrase “ESA requirements” is no longer used in the document. Likewise, the table that listed the bull trout use of the project area as "rare" is no longer in the document.

**F-003-003**

We recognize the concern that USFWS has regarding EPA/Ecology standards for water quality and the effects on fish. However, the proposed project will result in a net improvement in water quality discharged into Elliott Bay and Lake Union compared to existing conditions. Therefore, it is unlikely that fish mortality rates would increase compared to current conditions.
Mr. Daniel M. Mathis

Thank you for the opportunity to comment on this project at this early stage. If you have any questions or need clarification on fish and wildlife resources, please contact the U.S. Fish and Wildlife Service, Jennifer Quan at (360) 753-6047 or Emily Teachout at (360) 753-9583.

Sincerely,

W. R. Taylor
Director, Office of Environmental Policy and Compliance

cc:
Washington State Department of Transportation
401 Second Avenue South, Suite 580
Seattle, Washington 98104
FHWA, WSDOT, and the City of Seattle appreciate your comments. Please see the responses to your Supplemental Draft EIS comment letter (F-008) submitted on September 26, 2006, which includes the 2004 Draft EIS comments that were still pertinent at that time. The project has continued to evolve since 2006, as have its environmental documents. Please see the Final EIS for current project information.
<table>
<thead>
<tr>
<th>POEIS Chapter No</th>
<th>POEIS Page No</th>
<th>POEIS Paragraph No</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>70</td>
<td>4</td>
<td>Fish occur along the entire waterfront, not just the portion between S. King St. and Myrtle Edwards Park!</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>4</td>
<td>Last line the word &quot;northup&quot; seems to be out of place</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>5</td>
<td>Boys - two words, not one</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>5</td>
<td>SASSI lists the Green/DeWormish stock as healthy, but that is based almost entirely on hatchery fish. I doubt that the wild portion of the run could be considered healthy</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>2</td>
<td>The seaport and Colman Dock area could have essential fish habitat - NO it DOES have EFH!</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>2</td>
<td>I suggest you do not minimize the effect of EFH</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>4</td>
<td>How can something be &quot;essentially&quot; covered, this needs explanation</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>5</td>
<td>A couple of words together problems</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>5</td>
<td>First three words don't make sense</td>
</tr>
<tr>
<td>3</td>
<td>72</td>
<td>1</td>
<td>Two run together sentences - put a period between city and McKenzie</td>
</tr>
<tr>
<td>3</td>
<td>77</td>
<td>2</td>
<td>&quot;reasonably predictable&quot; - can you be reasonably pregnant? It is or it isn't predictable!</td>
</tr>
<tr>
<td>5</td>
<td>77</td>
<td>3</td>
<td>The use of &quot;reasonably predictable&quot; again</td>
</tr>
<tr>
<td>3</td>
<td>78</td>
<td>4</td>
<td>Does the steam plant still operate?</td>
</tr>
<tr>
<td>3</td>
<td>78</td>
<td>4</td>
<td>Last sentence - what does &quot;cleaned up considerably&quot; mean?</td>
</tr>
<tr>
<td>6</td>
<td>110</td>
<td>3</td>
<td>Third line word &quot;could&quot; should be replaced with the word &quot;would&quot;</td>
</tr>
<tr>
<td>5</td>
<td>111</td>
<td>4</td>
<td>Stormwater water&quot; seem redundant</td>
</tr>
<tr>
<td>6</td>
<td>111</td>
<td>4</td>
<td>TP what does this stand for? Toilet Paper?</td>
</tr>
<tr>
<td>6</td>
<td>118</td>
<td>5</td>
<td>&quot;not Forte access&quot; the sentence does not make sense</td>
</tr>
<tr>
<td>6</td>
<td>118</td>
<td>7</td>
<td>Incomplete sentence</td>
</tr>
<tr>
<td>11</td>
<td>276</td>
<td>5</td>
<td>I must have been tired since many pages have gone by since my last comment. Indirect effects can include more urban housing and it is probably that more condos will be built if the tunnel option materializes. Also more use of the waterfront and ???</td>
</tr>
<tr>
<td>11</td>
<td>279</td>
<td>2</td>
<td>Fix this first sentence</td>
</tr>
<tr>
<td>POEIS Chapter No.</td>
<td>POEIS Page No.</td>
<td>POEIS Paragraph No.</td>
<td>Comment</td>
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</tr>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
<td>There is discussion of the water volume changes, please change this to square foot impact, not cubic foot impact.</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>2</td>
<td>Why the difference in the amount of fill into Elliott bay between the tunnel and the bypass tunnel?</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
<td>The last sentence of the paragraph mentions additional habitat as a result of the replacement seawall - this is a stretch and I would like to know what habitat will be available and for what species of aquatic organism(s).</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>1</td>
<td>Fourth line has &quot;tunnel and tunnel&quot; - what does this mean?</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>5</td>
<td>Anadromous Fish Run Data - what are (s) the source(s)?</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>5</td>
<td>Commercial managed species - needs a better definition since there may be differences between State and Federally managed species.</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>4</td>
<td>Second sentence, third line &quot;Condition&quot; should be plural.</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>4</td>
<td>The Project area is defined, however, the action area will need to be defined for the ESA consultation.</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>2</td>
<td>The latter part of the paragraph has many words such as &quot;few, moderate, many&quot; etc. - perhaps a small table with actual numbers by date.</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>4</td>
<td>Second sentence - the M.S Act regulates 3 species of salmon, not all species. Please redo the final sentence in this paragraph.</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>5-5</td>
<td>Table 4-5: Add yelloweye rockfish (Sebastes ruberrimus) to the list.</td>
</tr>
<tr>
<td>5</td>
<td>37</td>
<td>Exhibit 5-1</td>
<td>When calculating amount of habitat, please do it in square measure, not cubic.</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>2</td>
<td>How does the WSDOT stormwater manual compare with the latest Ecology stormwater manual for the relevant actions?</td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>3</td>
<td>What is the foot print, never mind the cubic measure!</td>
</tr>
<tr>
<td>5</td>
<td>42</td>
<td>3</td>
<td>How much over water coverage is associated with the sidewalk?</td>
</tr>
<tr>
<td>5</td>
<td>42, 44, 46, 47</td>
<td>4, 5, 2</td>
<td>Confusing use of cubic yards and square footage - as far as habitat is concerned please use only square footage.</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>5, 2</td>
<td>Again, how much over water coverage is associated with sidewalks.</td>
</tr>
</tbody>
</table>
## ALASKAN WAY VIADUCT AND SEAWALL REPLACEMENT PROJECT
### COMMENT FORM

<table>
<thead>
<tr>
<th>PDEIS Chapter No.</th>
<th>PDEIS Page No.</th>
<th>PDEIS Paragraph No.</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>61</td>
<td>3</td>
<td>Section 7 of the Act also requires federal agencies to &quot;utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act.&quot;</td>
</tr>
<tr>
<td>10</td>
<td>61</td>
<td>3</td>
<td>Further, conservation is defined as - &quot;the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.&quot;</td>
</tr>
<tr>
<td>10</td>
<td>65</td>
<td>4</td>
<td>I am confused - what does spawning have to do with juveniles?</td>
</tr>
<tr>
<td>10</td>
<td>66</td>
<td>4</td>
<td>This paragraph is incorrect - EFH does not have the 4 layers of impact that the ESA does. In EFH the impact is yes or no, so is should read &quot;the proposed project will impact identified EFH&quot;</td>
</tr>
</tbody>
</table>

The following items are for "Appendix S, Water Resources Discipline Report."

| 1 | 4 | Exhibit 1-2 | Cu under Puget Sound - this is confusing, the numbers need a far better explanation!!!!!! |
| 4 | 37 | 2 | The conclusion about stormwater treatment in this paragraph appears to contradict the numbers in Exhibit 1-2 |
| 4 | 40 | 5 | The second half of this paragraph - is this the reason for the confusion in Exhibit 1-2? |
| 4 | 62 | 5 | Again - comparison of WSDOT stormwater guidelines with Ecology stormwater manual |
| 5 | 60 | Exhibit 5-1 | Zn and Cu under Puget Sound - why are the convey and treat numbers higher than the BMP numbers? |
The construction activity on Alaskan Way S. near S. Massachusetts Street is now part of the S. Holgate Street to S. King Street Viaduct Replacement project. Access will be maintained to the Coast Guard main gate during construction. Construction for this project began in 2010 and project details can be found on the Washington State Department of Transportation’s website.

The Coast Guard office building and the Coast Guard Museum would not be displaced by the Alaskan Way Viaduct Replacement Project. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. With this alternative, only a few partial property acquisitions are necessary and none of them involve Coast Guard property. Please see the Final EIS for current project information.

During construction, access to the Coast Guard property will be maintained. Travel on Alaskan Way would, however, be affected by an increase in congestion due to construction traffic and related activities. An increase in noise levels may also be expected at times during construction. Mitigation for congestion and noise is discussed in the Final EIS.

Also, please see the environmental assessment for the SR 99 - S. Holgate Street to S. King Street Viaduct Project, which began construction in summer 2010. That project will replace the southern mile of the viaduct with a new side-by-side roadway, and the Coast Guard buildings referenced in these comments fall within its study area.

Current design plans show that Alaskan Way would be an at-grade roadway directly in front of your buildings. Mitigation for construction noise is proposed for this project. Please see Chapter 8 of the Final EIS.
F-005-004
There are currently no plans that would affect the location of the transformer for US Coast Guard. Current design indicates only the feed to the transformer potentially would be relocated.
Thank you for reviewing the 2006 Supplemental Draft EIS and for rating it in accordance with your agency's regulatory authority. Thank you for acknowledging our efforts to provide a thorough environmental analysis and extensive public involvement opportunities.

September 22, 2006

Reply to
Att'n Of: ETPA-088 Ref: 01-050-FHW

Stephen Boch
Major Project Oversight Manager
Federal Highway Administration
771 South Capitol Way, No 501
Olympia, WA 98501-1284

Kate Steinberg
AWV Environmental Manager
Washington Department of Transportation
999 Third Avenue, Suite 2424
Seattle WA 98104-4019

Grace Crnican
Director of Seattle Dept of Transportation
City of Seattle
P.O. Box 34996
Seattle WA 98124-4996

Dear Mr. Boch, Ms. Steinberg, and Ms. Crnican:

The U.S. Environmental Protection Agency (EPA) has reviewed the Supplemental Draft Environmental Impact Statement (DSEIS) for the proposed SR 99: Alaskan Way Viaduct & Seawall Replacement Project, dated July 28, 2006, in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309, independent of NEPA, specifically directs EPA to review and comment in writing on the environmental impacts associated with all major federal actions and the document’s adequacy in meeting NEPA requirements.

Based on our review and evaluation, we have assigned a rating of EC-2 (Environmental Concerns, Insufficient Information) to the supplemental DEIS. This rating, and a summary of our comments, will be published in the Federal Register. A copy of the rating system used in conducting our review is enclosed for your reference.
We commend you on your efforts to provide a thorough examination of possible alternatives and environmental analyses, as well as to provide extensive public involvement opportunities. The supplemental DEIS presents revised alternatives and information about construction impacts that is useful and will support informed decision making for the project. We anticipate continued conversation about the decision for the future of the Alaskan Way Viaduct. The DEIS and supplemental DEIS will support that conversation by providing accurate and useful information to the public.

We have provided some brief comments (attached) on the supplemental DEIS. The main focus of our comments is on air quality and human health effects during construction, and the reviewability of the document. Although we believe a very good effort has been made to provide a complete and accurate analysis, there were several aspects of the document that, if altered, would make important information more accessible.

Thank you for the opportunity to provide comments on this project. If you would like to discuss this further, please contact me at 206-553-1601.

Sincerely,

Christine Reichelt, Manager
NEPA Review Unit

Attachments

cc: Army Corps of Engineers, Regulatory Branch
    Terry Swanson, WSDOE
    Teresa Curran, WDFW
    Emily Teetschne, USFWS
    Bob Donnelly, NMFS
Thank you for your comment in support of the discussion of alternatives considered but eliminated in our 2006 Supplemental Draft EIS.

A Memorandum of Agreement (MOA) has been developed between WSDOT and the Puget Sound Clean Air Agency (PSCAA). The MOA will help eliminate, confine, or reduce construction-related emissions for WSDOT projects. This MOA will apply to the Alaskan Way Viaduct Replacement Project. We also plan to develop a fugitive dust plan for construction activities.
We continue to work hard to make this document usable to many different readers, including regulatory reviewers. The Final EIS contains one set of appendices that lists all effects, mitigation, etc. in one place. This approach should help make review easier. We did provide several tools in the Supplemental Draft EISs to help reviews find information. In addition to a technical index and a traditional document index, we added a more detailed technical table of contents in the 2006 Supplemental Draft EIS (see page 132). The technical table of contents includes a listing of the question and answer sections for each chapter. We provided this expanded table of contents in response to your agency's request in your comments on the 2004 Draft EIS.

We have worked hard to ensure that important trade-offs between alternatives and important conclusions from the technical appendices have been adequately documented in the main body of the EIS. We think the information presented in the main body of the EIS does provide sufficient information for readers to develop an understanding of the key issues and trade-offs associated with the alternatives.

We acknowledge your agency's desire for us to add a summary matrix. We think the summary chapter of the Final EIS adequately summarizes key issues and differences between alternatives.
It is possible that construction for all activities could occur up to 24 hours per day, 7 days per week, within permitting requirements, if necessary. However, it is likely that the proposed construction activities and shifts will vary depending on the location and type of construction activity. The current construction plans for each build alternative do not assume continuous construction, even though that option is possible to maintain schedule, for instance.

The project's construction plans describing construction activities and durations are summarized in Chapter 3 of the Final EIS and discussed in more detail in Appendix B, Alternatives Description and Construction Methods Discipline Report, of the Final EIS. Appendix F, Noise Discipline Report, presents noise-related construction effects. In addition, the project is coordinating closely with the City of Seattle through its noise variance permitting process to find ways to address the concerns of sensitive populations within and near the project corridor.
September 22, 2006

Kate Stenberg
Alaska Way Viaduct Environmental Manager
Alaska Way Viaduct Project Office
999 Third Avenue, Suite 2424
Seattle, WA 98104

Dear Ms. Stenberg:

Enclosed please find comments from the Federal Transit Administration (FTA) on the SR 99: Alaskan Way Viaduct and Seawall Replacement Project Supplemental Draft Environmental Impact Statement (Supplement). As you are aware, FTA is a federal cooperating agency for this National Environmental Policy Act (NEPA) analysis.

As everyone on your team is acutely aware, this project will create enormous challenges for our community, regardless of the alternative selected. We congratulate your team for the tremendous amount of good work done so far on this project.

We appreciate your consideration of the attached comments and look forward to continued collaboration on transportation projects in Washington. Please contact Linda Gehrke at 206.230.4463 if you have any questions.

Sincerely,

R.F. Koochals
Regional Administrator

Enclosure

cc: Steve Boch, FHWA
    Angela Freudenstein, WSF
    Gary Kreidt, King County
    Dorienda Costa, Seattle DOT
    Karen Richter, PSRC
The process that led to the identification of the preferred alternative is described in Chapter 2 of the Final EIS.

The discussion of costs in the 2006 Supplemental Draft EIS is consistent with FHWA, WSDOT, and City of Seattle NEPA and SEPA procedures. The discussion has been updated in the Final EIS to reflect the current alternatives. Costs are intentionally not a major part of these environmental documents so that people can focus on environmental impacts and benefits. The lead agencies have provided more detailed cost information to decision-makers and the public through avenues other than the environmental documents.

An updated travel demand model has been used for the traffic analysis in the Final EIS. Data from the updated model was used to analyze both short-term (construction) and long-term (operational) effects of the project.

Since 2006, the plans for this section of the project have evolved. The Bored Tunnel Alternative has been identified as the preferred alternative. With this alternative, full northbound and southbound access to and from SR 99 would be provided in the south portal area between S. Royal Brougham Way and S. King Street. The ferry holding area would not be moved to the location referred to in this comment. Please see the Final EIS for the current alternative configurations and proposed mitigation measures.
Coordination with the SR 519 project has been a key component of the Alaskan Way Viaduct Replacement Project, particularly in the context of the overall planning and roadway design process within the stadium area. The SR 519 project is now completed. The project team worked with the SR 519 project to ensure that designs and project development activities were coordinated and consistent. Please note that the SR 99 - S. Holgate Street to S. King Street Viaduct Replacement Project is currently in construction and will include new or rebuilt connections at S. Atlantic Street and S. Royal Brougham Way to improve mobility in the south downtown area.

These statements referenced in your letter are correct. Buses that currently access the Seattle Central Business District via the Seneca/Columbia Street ramps (predominantly originating in West Seattle/Burien) do not serve the southern portion of downtown Seattle, which includes Pioneer Square.

The Bored Tunnel Alternative has been identified as the preferred alternative. Under this alternative, the Columbia/Seneca Street ramps would be removed, and all transit currently operating on SR 99 would need to exit and enter SR 99 in the stadium area. This change in service coverage would increase the number of buses traveling through south downtown Seattle. The change would increase transit travel times to destinations in central downtown. Some of these travel time effects will be mitigated by the provision of the northbound transit-only lane on SR 99 from S. Holgate Street to the off-ramp intersection. Please see the Final EIS and Appendix C, Transportation Discipline Report for current information on effects to transit for each alternative.

Construction of the Olympic Sculpture Park and the resulting
displacement of the vehicle storage and maintenance facility led to the indefinite suspension of the Waterfront Streetcar service in 2008. None of the build alternatives for this project includes a maintenance facility for the streetcar once operations recommence on Alaskan Way. To date, there has been no resolution on location of the maintenance facility, which is required to re-start service. Under the Bored Tunnel Alternative, the City of Seattle will undertake planning for the central waterfront area, including the Waterfront Streetcar. Both the Cut-and-Cover Tunnel and Elevated Structure Alternatives provide for its replacement but would still require a new maintenance facility.

F-007-008
The project team has coordinated with Washington State Ferries throughout the design process for all build alternatives. The Final EIS Appendix C, Transportation Discipline Report, discusses the effects of the preferred alternative, the Bored Tunnel, both during construction and in the built condition. Travel model results and traffic analysis tools were used to determine potential effects of vehicles entering and exiting Colman Dock. A key finding is that “in peak hours, overall LOS (level-of-service) at the Alaskan Way/Marion Street intersection and at the Alaskan Way/Yesler Way intersection is forecasted to perform well (LOS D or better) for the Bored Tunnel Alternative in the built condition.” However, it must be noted that as with existing ferry operations, there would be service disruptions at times, due to issues with vessels (weather or breakdowns), or seasonal demand spikes that would cause variations and disruptions in traffic along Alaskan Way in the vicinity of the Seattle Ferry Terminal.

If the Bored Tunnel Alternative is selected, the final configuration of Alaskan Way would be determined through the City of Seattle’s Central Waterfront Project. That project would coordinate with Washington State Ferries regarding access to and from the terminal for pedestrians and vehicles accessing from Alaskan Way.
The decision to update the ferry modeling baseline and forecast numbers was based on information and comments received from Washington State Ferries (WSF).

Based on updated information, the 2006 Supplemental Draft EIS estimates that 540 vehicles arrive at Colman Dock during the existing PM peak hour under current conditions. This estimate is based on existing PM peak hour demand at Colman Dock for the 30th busiest day of the year, which corresponds to a 92nd percentile weekday and is of a magnitude that is consistent with traffic counts taken in the vicinity of Colman Dock. These factors have been discussed fully with WSF staff.

The location of the passenger tracks into King Street Station does not affect traffic modeling. The Sounder frequency assumptions included in the 2030 Baseline Model include 12 two-way trips between Everett and Tacoma and 8 one-way trips from Tacoma to Everett. The 2030 Baseline Model also includes reduced capacity on S. Holgate Street to reflect increased train activity. The transportation modeling has been updated to provide current information for the Final EIS. Please see the Transportation Discipline Report, Appendix C for the current assumptions used and updated analysis.

In the 2006 Supplemental Draft EIS, the Elevated Structure Alternative proposed improving pedestrian-related amenities on the west side of the corridor. Starting at S. Washington Street, in front of the S. Washington Street Boat Landing, a 25-foot-wide area would be devoted to a sidewalk, a bicycle path, and an unstructured open space. From Yesler Way north, an area comprised of these same uses would be 41 feet wide; between Union and Pine Streets, a public open space would be added to the sidewalk and bicycle path, resulting in a public waterfront.
will not be formal mitigation measures? Please explain the relationship between the Plan and the strategies.

Remote parking for construction workers. We note that the potential mitigation measure of requiring transit and/or remote parking (possibly with shuttle buses) for construction workers (p. 33) would ameliorate adverse impacts to traffic and air quality as well as parking. Given these benefits, FTA strongly urges that any final construction mitigation plan include this measure.

Travel times. FTA recommends that the FEIS include some analysis of impacts to transit travel times, rather than only looking at intersection congestion levels.

Reduction in traffic through downtown. What is the basis for the conclusion that total traffic for north-south routes through central downtown Seattle is expected to decrease by an estimated 7 percent during viaduct closures and 4 percent during viaduct restrictions (p. 95)? Do the traffic forecasts in the Supplement take these decreases into account? Do they take into account other alternate routes/diversions identified in the Supplement (e.g., the First Avenue South Detour)?

Vanpools for ferry riders. Additional ferry-landing-based vanpools and ride-sharing have also been proposed as likely mitigation during construction; do the Colman Dock access plans take those activities into account? Are vanpool vehicles available? Where will the vans be stored?

Section 4J. Several properties potentially subject to Section 4J of the Dept. of Transportation Act of 1966 were declared ineligible in language similar to this: Conclusion regarding Section 4J: This resource is not protected by the provisions of Section 4J because it is primarily designated for passive viewing and as such is not considered a park or recreation resource. 2006 Appendix B, p. 37 (emphasis added).

What is the basis for the statement that "resources primarily designated for passive viewing" may not be considered a park or recreation resource? FTA does not believe that is a reason to disqualify a resource from 4J consideration.

Staging areas. FTA recommends an improved description of the potential staging areas. Of special concern is the plan to use local street rights-of-way (2006 Appendix C, p. 47), given the stresses likely to exist on local streets near the project. Even where on-street staging does not affect traffic conditions, it could hinder accessibility to bus stops and thereby impact speed and reliability.

Construction haul routes. Construction haul routes need more definition in the FEIS. The removal of 2.6 million cubic yards under the Tunnel Alternative (and perhaps an additional 650,000 cy if the Lowered Aurora option is selected) will itself contribute noticeably to congestion. (See Supplement, p. 103). Disposal sites may become an issue and require the use of different routes if AWV construction overlaps with Sound Transit (University Link), SR 520, I-405 and I-5 work. FTA recommends that the FEIS explain why or why not barge and rail hauling are possible.

The project also acknowledges the offer by the FTA for potential funding assistance for mitigation. Please see Chapter 8 of the Final EIS for proposed mitigation measures.

The various mitigation measures developed for this project have been distributed for public review and comment as planning and design progress. The result is the mitigation measures included with the Final EIS. The nature of these measures is that they will continue to evolve and adapt to changing demands through the construction process. The ROD will include responses to comments received on the Final EIS.

The proposed mitigation for this project includes measures that are under the authority of and funded by the lead agencies. However, there are many independent projects underway that will have the effect of...
mitigating potential impacts but are not contingent on or funded by this project. Examples include lane re-striping on I-5 as part of pavement rehabilitation that will improve traffic operations and the bus rapid transit routes included in transit improvements recently approved by county voters. These are clearly separate projects, but they will help relieve congestion by moving more traffic.

Project costs provided to the public have consistently included estimates of mitigation costs. These estimates have been refined as planning progresses. The basis for the estimates varies for each measure depending on the level of development. Percentages of construction costs based on formulas have not been used for these estimates.

F-007-015

FHWA, WSDOT, and the City of Seattle are involved in discussions with the regional transit operators regarding the coordination of transit mitigation efforts for regional “megaprojects” (e.g., SR 520 Bridge Replacement and HOV Program, I-5 Pavement Reconstruction and Bottleneck Improvement Projects). As these discussions progress, a plan for coordinating the various vehicle and maintenance facility needs for the increased intensity of transit service will be developed. While this process is separate from this project, reference is made to it in the Final EIS, Appendix C, Transportation Discipline Report.

F-007-016

Mitigation measures for or involving transit are discussed in Chapter 8 of the Final EIS and in Appendix C, Transportation Discipline Report. These measures are not prioritized as suggested in this comment. The Record of Decision also will contain the mitigation commitments for the project.
The lead agencies commit to mitigation measures within the Final EIS and, later, in Record of Decision. One of the commitments is to prepare a transportation management plan, which is not included with the Final EIS as it will be prepared after the environmental review process is complete. See Chapter 8 of the Final for a list of measures and strategies that would be included in the transportation management plan. In some cases, the lead agencies may have a suite of mitigation measures to choose from. In those cases, the lead agencies will select those mitigation measures that are commensurate with the impacts.

A number of locations for remote construction worker parking have been proposed for consideration, though final locations will be determined by the contractor.

Appendix C, Transportation Discipline Report, of the Final EIS contains the full analysis of impacts to transit speeds and travel times. These are summarized in Chapter 5 of the Final EIS.

Travel behaviors are extremely complex and varied in nature, and predicting how they will change during construction is difficult and involves some degree of uncertainty. A number of factors help to explain how and why traffic volumes would decrease overall when the viaduct is closed for construction. The primary driver of this reduction is that capacity on alternate routes has a finite limit. That is, every vehicle trip cannot be accommodated on an alternate roadway during peak travel periods.

Limited capacity on alternate routes can lead to some significant and
complex changes in travel behavior. This was reflected in the travel demand model as some auto trips changed modes (transit, carpools and vanpools), some people traveled at less congested times of the day, some people chose different destinations (e.g., driving to Southcenter to shop instead of downtown Seattle), and some trips just weren't made.

The travel demand model reflected these changes in travel behavior during construction, and as a result reflected that the increases in traffic on parallel routes will be slightly less than the amount displaced from SR 99. The model did take into account other alternate routes identified in the 2006 Supplemental Draft EIS.

Please note that the traffic information for the project has been updated since 2006. See the Final EIS and Appendix C, Transportation Discipline Report.

**F-007-021**

WSDOT, King County, and the City of Seattle have developed Transportation Improvements to Minimize Traffic Effects During Construction to keep people and goods moving during construction of the Moving Forward projects. These enhancements and improvements are independent projects that will benefit all pending Program elements. They are designed to increase transit options, shift traffic away from construction areas, and provide drivers with the information they need to choose less congested routes. These plans include information about travel alternatives and incentives to encourage use of transit, carpool, and vanpool programs. In addition to the Transportation Improvements to Minimize Traffic Effects During Construction and the transit-related projects, more localized mitigation measures will be developed as construction details are refined.

**F-007-022**

The Section 4(f) evaluation has been revised substantially since 2006,
both to follow current regulations and to address the current project. Please refer to the Final EIS Section 4(f) chapter.

F-007-023
An updated description of staging areas is contained in the Final EIS and Appendix B, Alternatives Description and Construction Methods. The lead agencies have coordinated with local and regional transit agencies to ensure that potential effects from using street rights-of-way for construction staging are minimized through construction scheduling, rerouting transit, informing the public of transit disruptions, and providing alternative routes.

F-007-024
Potential construction truck haul routes are presented in Chapter 3 of Appendix B, Alternatives Description and Construction Methods Discipline Report, of the Final EIS. However, rail and barge hauling are mentioned as possible alternatives to trucking.

F-007-025
As part of the traffic modeling effort, transit operations were considered for all transit routes that use the Downtown Seattle Transit Tunnel (DSTT). All routes that used the DSTT prior to the closure in 2005 were assumed to return September 2007 when the tunnel was reopened.

In 2009, when Sound Transit’s Link Light Rail began operating between downtown Seattle and Sea-Tac Airport, some bus routes remained in the tunnel while others were rerouted to surface streets (Second Avenue, Third Avenue, Fourth Avenue, and Fifth Avenue). The remaining bus routes using the DSTT will not be rerouted to the surface until Link headways become too short to allow for mixed operations, which will occur over many years--well beyond the construction period of the

Alaskan Way Viaduct Replacement Project. Long-term bus operations on downtown city streets are outside the scope of this project.

F-007-026
Even though I-5 is near capacity, some drivers are expected to shift to use I-5 during construction because the number and capacity of alternative routes is limited in this section of Seattle. More trips will likely use I-5 just before or after the peak period, thereby extending the hours of congestion (per day) on this facility. Due to the current congestion and anticipated growth in demand in the corridor, I-5 is not expected to be able to handle a majority of SR 99 trips during construction, especially during the peak hours. Therefore, other alternate routes, mainly downtown north-south arterials, are expected to be used as alternate routes, though they will not be able to absorb the balance of traffic being diverted off of SR 99 during periods of major construction. Expanded transit service, demand management strategies, and some trip elimination will be needed to mitigate those trips that cannot be accommodated by city streets and I-5.

However, if the Bored Tunnel Alternative is selected, the viaduct would remain open to traffic during its construction period. SR 99 would be closed for only a few weeks to connect the new bored tunnel ramps to the surface SR 99.

F-007-027
WSDOT and the City of Seattle communicate regularly regarding construction staging and coordination for transportation projects occurring in the downtown Seattle area. WSDOT, King County, and the City of Seattle have developed and are implementing transportation improvement projects to minimize traffic effects to keep people and good moving in and through Seattle. See Chapter 8, Mitigation, of the Final EIS for more information about how concurrent construction effects will be mitigated.
The majority of work for the S. Spokane Street Project, including the Fourth Avenue S. ramp and new eastbound and westbound ramps from the Spokane Street Viaduct, is scheduled to be complete by the Fall of 2011, prior to the start of major Alaskan Way Viaduct Replacement Project construction. The schedule of the S. Spokane Street Viaduct project does overlap with the S. Holgate Street to S. King Street Viaduct Replacement Project, and impacts are discussed in Chapter 7 and the cumulative effects appendix of the Final EIS.

A map showing pedestrian and bicycle facilities is included in the Final EIS. This map includes existing pedestrian and bicycle facilities. Bicycle access will be maintained during construction activities. Strategies to maintain pedestrian/ bicycle access during construction are described in Chapter 8 of the Final EIS. At times, it will be necessary to reroute bicycles using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Chapter 5 of the Final EIS describes the proposed permanent bicycle facilities for each alternative.

Barriers to prevent conflicts with vehicles are not proposed for temporary bicycle facilities/detours. Typically, bicycles operating on arterial streets in Seattle share the space with other vehicles (i.e., buses, autos) and can operate on sidewalks. Where right-of-way is adequate, bicycle lanes can be provided.

The Port of Seattle moved the T-30 cruise terminal to T-91 in Interbay in 2008, thereby reducing the number of cruise passengers and associated traffic along the waterfront. The project has met with waterfront tenants and owners. The intent is for mitigation strategies to be in effect as soon as access to the waterfront is disrupted by the project. Access to the
cruise terminal at Pier 66 for passengers and deliveries would be maintained during construction.

**F-007-031**
The City of Seattle's S. Spokane Street Project is under construction, and a new ramp connecting eastbound S. Spokane Street traffic to Fourth Avenue S. opened in August 2010. This will help divert some in-bound traffic off of First Avenue S. New westbound on- and off-ramps from First Avenue S. to S. Spokane Street are expected to open in Fall 2011. Widening of the S. Spokane Street Viaduct from East Marginal Way to Sixth Avenue S. is expected to be completed around May 2012. The Lander Street Overpass project has been placed on hold due to funding limitations. The future schedule of the project is unknown at this time, though the project remains a priority for SDOT. These projects are not considered mitigation for this project in the Final EIS.

Appendix C, Transportation Discipline Report, has been updated for the Final EIS. Please see that document for the current proposed mitigation measures.

**F-007-032**
An exhibit showing existing transit routes that use SR 99 is included in the Final EIS, Chapter 4. Project construction effects on transit routes is described in Chapter 6 of the Final EIS.

**F-007-033**
We acknowledge that there is a lot of information provided in the 2004 Draft and 2006 Supplemental Draft EIS documents. The thorough analysis conducted was completed in order to meet federal and state requirements. We are sorry to hear that the format of the document was not helpful to FTA. We continue to work hard to make the project's environmental documents useful to a wide variety of audiences. For the
Final EIS, each supporting appendix contains the current affected environmental, effects, and mitigation information for the proposed alternatives in one document.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative for this project. This alternative has been analyzed in the 2010 Supplemental Draft EIS and Final EIS, and would not include the replacement of the seawall. Under this alternative, the replacement of the seawall would be a separate project led by the City of Seattle.

For the Cut-and-Cover Tunnel and the Elevated Structure Alternatives that do include the replacement of the seawall, maintaining the stability of the seawall during construction of the new wall sections is a key design consideration and performance measure. The design team has carefully incorporated the design elements, such as bracing or tiebacks, needed to ensure the stability of the structure during construction. In addition, an extensive settlement and vibration monitoring program would be developed to be conducted both during and after construction to measure indicators of movement and instability.
Since publication of the 2006 Supplemental Draft EIS, a new containment strategy has been developed to prevent grout and other contaminants from entering the water in Elliott Bay. The containment method was developed in the September 2006 Tunnel Constructability workshop and includes the following procedures and applies to the Cut-and-Cover Tunnel and Elevated Structure Alternatives only:

1. The existing seawall would be surveyed for size and location of cracks and other potential leakage points.
2. Temporary repairs would be made to the existing seawall to retain upland grout when it is placed.
3. A turbidity curtain would be installed to minimize turbidity in the construction area and prevent water quality impacts outside the work area.
4. A movable containment panel would be installed adjacent to the existing seawall, including impervious mat to be placed over the riprap adjacent to the seawall. The size and location of the panel-mat system would be determined by the secant pile installation and grouting operations.

In certain areas, a sheet pile wall may be necessary for containment. A turbidity curtain would be installed prior to installation of the sheet pile wall or removal of riprap for placement of the sheet pile wall. The turbidity curtain will minimize or prevent turbid water from leaving the construction area and impacting water quality.

Information related to mitigation and proposed habitat enhancements was provided in the 2010 Supplemental Draft EIS and can be found in Chapter 8 of the Final EIS.
The existing Alaskan Way Viaduct Replacement Project area is part of a highly developed downtown urban corridor along the Elliott Bay waterfront. The project area has been developed for more than 100 years and is assumed to be 100 percent impervious. The specific location for discharge of groundwater to Elliott Bay is not known. Based on observations of groundwater seepage to Puget Sound in other locations, groundwater discharge likely occurs as diffuse seepage along the contact between the aquifer material (sand and gravel soils) and Elliott Bay.

Groundwater reinjection has been proposed to potentially mitigate the impacts of construction dewatering of excavations. Groundwater pumped from the construction dewatering system would be treated and then reinjected through wells into the soil outside the excavation. From a groundwater management perspective, the result of using groundwater for this purpose is a net reduction in the groundwater being removed from the underlying aquifers.

Descriptions of and potential effects to essential fish habitat are included in the biological assessment developed for the project. Species that have essential fish habitat in Elliott Bay are identified in Final EIS Appendix N, Fisheries, Wildlife, and Habitat Discipline Report and Chapter 4 of the Final EIS.

Thank you for the clarification. Subsequent documents incorporated this information, as appropriate.

Data were obtained from Weitkamp and Ruggerone (2000) and from the
NMFS understands that the SDEIS does not provide an in-depth analysis of potential impacts to threatened and endangered species. The FHWA and WSDOT will be consulting with NMFS under section 7 of the Endangered Species Act. A more thorough review of the impacts to threatened and endangered species will be required at that time.

The following comments on the SDEIS:

1) Throughout the SDEIS (Page 25, No. 8; Page 33, No. 18; Page 104, No. 25; etc.) the SDEIS states that FHWA, WSDOT and the City will work with the regulatory agencies to improve any fish and wildlife habitat affected by the project, to evaluate conservation measures to avoid, minimize, rectify, or compensate for impacts to species and their habitat, and to review mitigation plans. NMFS has been coordinating with the FHWA, WSDOT, and the City throughout the project design to identify and minimize potential impacts to fish and wildlife. NMFS will continue to be available to provide technical assistance for the identification of any mitigation, restoration and enhancement projects to improve habitat for listed species. We look forward to a list of all project effects to listed fish and their critical habitat and conservation measures to avoid and minimize those effects in the biological assessment required for the Endangered Species Act section 7 consultation on the project.

2) Page 68, No. 15: The SDEIS states that a temporary 15,000-square-foot access bridge would be constructed instead of a permanent 33,000-square-foot overwater pier between Pier 48 and Colman Dock. It is unclear from the SDEIS how long the temporary access bridge would be in place (additional information on the access bridge was given on Pages 76 and 101). On Page 101, the SDEIS states that the bridge would be constructed within the first 30 months and would remain until construction is complete. A temporary bridge constructed and used for six to eight years could have significant impacts to the aquatic environment, even with a smaller surface area. Please analyze these effects on listed species and their critical habitat.

3) Page 68, yellow box in lower right corner: This box identifies new species and habitat that are evaluated in the SDEIS. Resident killer whales (Orcinus Orca) are identified, but proposed critical habitat for the killer whales is not. Please analyze the effects of the project on proposed critical habitat for killer whales.

4) Page 69, No. 16: The SDEIS states that stormwater from any impervious surfaces that are replaced by the project will be treated before it is discharged. On page 70, the SDEIS states that stormwater runoff generated within the project area will be collected and either directed to the combined sewer system and sent to a treatment plant, or treated using best management practices (BMPs) consistent with applicable stormwater codes. NMFS is not clear on how the stormwater will be treated, what performance standards or specific BMPs will be employed and what are the contaminant removal efficiencies of those BMPs. This information will be needed to determine effects of water quality on listed species and their habitat.

Comment noted. The appropriate text is included in Section 2.2 of Appendix N, Wildlife, Fish and Vegetation Discipline Report, of the Final EIS. Detailed discussion of the project effects on ESA species is provided in the biological assessment for the project.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This approach is described in the Final EIS Appendix O, Surface Water.
Discipline Report, and is most similar to the BMP Approach presented in the 2004 Draft EIS. An updated pollutant load analysis is also included in the Final EIS Appendix O.

Compared to existing conditions, all build alternatives would reduce the overall amount of pollutant-generating impervious surface, which is expected to improve water quality. Some portions of the project area currently discharge to Elliott Bay and Lake Union without treatment. All of the build alternatives would provide water quality treatment for pollutant-generating impervious surfaces in these areas.

F-008-014
The potential effects on federally-listed threatened and endangered species are discussed in the biological assessment for the project, the Final EIS, and Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

F-008-015
The lead agencies appreciate the involvement of NMFS during the course of this project. A biological assessment has been prepared for this project and it discusses the current project effects to endangered species. Your biological opinion was received on January 27, 2010.

F-008-016
The temporary over-water structure that could be in place for up to 8 years with the Cut-and-Cover Tunnel or Elevated Structure Alternatives, could impact the aquatic environment, depending on the water depth and orientation of the structure. Assessment of potential effects associated with a temporary over-water structure is included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. The preferred Bored Tunnel Alternative does not require the temporary structure referred to in this comment.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative would not replace the seawall or require in-water work. For the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative, which would both include replacement of the seawall, project construction activities will occur in areas shallower than 20 feet, which is outside of the designated critical habitat for killer whales. In addition, killer whales are unlikely to occur in the nearshore areas along the Seattle waterfront, due to the extensive anthropogenic activities and the multiple piers and piles. While the primary mechanism of potential effects of project operations on critical habitat is through stormwater discharge, the project is expected to improve water quality conditions in Elliott Bay or Puget Sound, compared to existing conditions.

The Convey and Treat Approach and the associated treatment facility have not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

Specific BMPs will not be determined until later in the design and permitting process. BMPs will be designed to meet the Basic Treatment Requirements as defined in the WSDOT Highway Runoff Manual, which is equivalent to the Ecology Manual 2005, or the applicable stormwater manual at the time of permitting. Both the WSDOT and Ecology Manuals have several BMPs that meet the requirements of Basic Treatment.

An updated pollutant load analysis that summarizes total annual loading is included in Appendix O of the Final EIS. Potential toxicity of
stormwater discharges is discussed in the Biological Assessment prepared for the preferred alternative.

**F-008-019**

No steel piles will be used for temporary bridge construction. Please note that constructing an access road to Colman Dock is not necessary for the preferred Bored Tunnel Alternative but would be required for the Cut-and-Cover Tunnel or Elevated Structure Alternatives.

**F-008-020**

In areas where it is necessary to remove riprap for construction, a turbidity curtain or equivalent protection will be installed prior to removing the riprap to minimize turbidity and impacts to aquatic species.

**F-008-021**

With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, walkways are proposed to facilitate adequate pedestrian access to the waterfront businesses so they can continue to operate. The effects of these temporary overwater pedestrian walkways between the central waterfront piers are discussed in Chapter 6 of the Final EIS and in Appendix N (Wildlife, Fish, and Vegetation Discipline Report). The effects of the project on listed species are discussed in the biological assessment. The preferred Bored Tunnel Alternative does not include these walkways.

**F-008-022**

Since publication of the 2006 Supplemental Draft EIS, a new containment strategy has been developed to prevent grout and other contaminants from entering the water in Elliott Bay. The containment method was developed in the September 2006 Tunnel Constructibility workshop and includes the following procedures and applies to the Cut-and-Cover Tunnel and Elevated Structure Alternatives only:
1. The existing seawall would be surveyed for size and location of cracks and other potential leakage points.
2. Temporary repairs would be made to the existing seawall to retain upland grout when it is placed.
3. A turbidity curtain would be installed to minimize turbidity in the construction area and prevent water quality impacts outside the work area.
4. A movable containment panel would be installed adjacent to the existing seawall, including impervious mat to be placed over the riprap adjacent to the seawall. The size and location of the panel-mat system would be determined by the secant pile installation and grouting operations.

In certain areas, a sheet pile wall may be necessary for containment. A turbidity curtain would be installed prior to installation of the sheet pile wall or removal of riprap for placement of the sheet pile wall. The turbidity curtain will minimize or prevent turbid water from leaving the construction area and impacting water quality.

F-008-023
Additional sediment sampling was conducted along the Seattle waterfront to enhance the sediment contaminant characterization in the area. Sediment sampling information is provided in Appendix Q, Hazardous Materials Discipline Report, of the Final EIS. The potential effects of these compounds on aquatic biota in the project area are reviewed and discussed in the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

F-008-024
All project improvements with the build alternatives would be independent of the combined sewer and separated storm drainage
systems. By design this project will not modify current operation of these systems or constrain future improvements undertaken by the City of Seattle. Therefore there is no effect on the combined or separated sewer systems to evaluate. The Biological Assessment prepared for this project evaluated stormwater runoffs related to the project following accepted methodologies.

F-008-025
No Aquatic Resource Mitigation Plan will be prepared for the preferred Bored Tunnel Alternative, as there is no proposed in-water work. The Final EIS addresses potential impacts (temporary and permanent) and proposed avoidance, minimization, and mitigation measures relative to both Elliott Bay and Lake Union habitat. However, direct construction effects on Elliott Bay and Lake Union habitat are not expected, as no in-water or nearshore work would occur as part of the project. The primary potential effects of construction activities on Lake Union habitat would be from stormwater runoff from the construction area. However, it is assumed that construction BMPs will be adequately installed and appropriately monitored to minimize or eliminate any discharge of construction site runoff to Lake Union. Detailed descriptions of runoff BMPs are provided in the Surface Water Discipline Report, Appendix O of the Final EIS.

F-008-026
Since 2006, the project has evolved and the Bored Tunnel Alternative has been identified as the preferred alternative. As a result, the anticipated effects of the project on listed species and their critical habitat as discussed in the 2006 Supplemental Draft EIS have also changed. The project's biological assessment discusses the effects associated with the preferred alternative. Current anticipated project effects are also presented in Appendix N, Wildlife, Fish, and Vegetation Discipline Report, and summarized in Chapters 5 and 6 of the Final EIS.
The Bored Tunnel Alternative does not include the replacement of the existing seawall or any in-water construction activities, so none of the creosote piles and timbers would be removed as part of the preferred alternative.

There are a number of creosote piles and timbers in the project area that could be removed during construction of the Cut-and-Cover Tunnel or Elevated Structure Alternatives. The removal of a portion of the overwater structure at Pier 48, as prior mitigation for constructing the temporary overwater ferry access bridge, would result in the removal of piles from the nearshore habitat. In addition, there are a number of wooden piles that support the overhanging sidewalks along the waterfront. These would be removed and replaced with cantilever sidewalk support structures. With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the removal of the existing seawall face would also result in the removal of a number of support piles and associated timbers. The removal of such material is part of the mitigation for the project, leading to long-term beneficial effects on aquatic resources in the area. Potential in-water construction activities associated with the Cut-and-Cover Tunnel and Elevated Structure Alternatives are discussed in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

Sound attenuation measures would be used when driving piles in water with the Cut-and-Cover Tunnel or Elevated Structure Alternatives. However, current project design for the preferred Bored Tunnel Alternative does not call for any in-water pile driving. The description of mitigation measures, including BMPs, for the potential impacts of the project on the aquatic environment are included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. Mitigation for the project is also discussed in Chapter 8 of the Final EIS.
Thank you for your comment. Please note that the Section 4(f), 6(f), and 106 evaluations have all been updated in the 2010 Supplemental Draft EIS and this Final EIS. FHWA, WSDOT, and the City of Seattle have worked hard to coordinate with the appropriate parties concerning the identification of and potential effects to Section 4(f) and Section 6(f) resources in the project area. The lead agencies have also identified potential measures to mitigate construction effects in an effort to keep the waterfront area vibrant, even during construction. These mitigation measures are described in Chapter 8 of the Final EIS.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative would not replace the seawall or require in-water work. An analysis of the potential effects of the project on listed fish and wildlife species has been conducted and provided in Appendix N, Wildlife, Fish, and Vegetation Discipline Report of the Final EIS. This information is summarized in the Final EIS. In addition, a biological assessment has been prepared for the preferred alternative.
FHWA and WSDOT greatly appreciate the efforts extended by the USFWS staff during the course of the project. A biological assessment has been prepared for this project and the biological opinion from NMFS was received on January 27, 2010.

The temporary over-water structure that could be in place for up to 8 years with the Cut-and-Cover Tunnel or Elevated Structure Alternatives, could impact the aquatic environment, depending on the water depth and orientation of the structure. Assessment of potential effects associated with a temporary over-water structure is included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. The preferred Bored Tunnel Alternative, does not require the temporary structure referred to in this comment.

In areas where it is necessary to remove riprap for construction associated with the seawall, a turbidity curtain or equivalent protection will be installed prior to riprap removal to minimize turbidity and effects to aquatic species.
Since publication of the 2006 Supplemental Draft EIS, a new containment strategy has been developed to prevent grout and other contaminants from entering the water in Elliott Bay. The containment method was developed in the September 2006 Tunnel Constructability workshop and includes the following procedures and applies to the Cut-and-Cover Tunnel and Elevated Structure Alternatives only:

1. The existing seawall would be surveyed for size and location of cracks and other potential leakage points.
2. Temporary repairs would be made to the existing seawall to retain upland grout when it is placed.
3. A turbidity curtain would be installed to minimize turbidity in the construction area and prevent water quality impacts outside the work area.
4. A movable containment panel would be installed adjacent to the existing seawall, including impervious mat to be placed over the riprap adjacent to the seawall. The size and location of the panel-mat system would be determined by the secant pile installation and grouting operations.

In certain areas, a sheet pile wall may be necessary for containment. A turbidity curtain would be installed prior to installation of the sheet pile wall or removal of riprap for placement of the sheet pile wall. The turbidity curtain will minimize or prevent turbid water from leaving the construction area and impacting water quality.

The construction methods were modified to minimize the use of sheet pile barriers in an effort to reduce the amount of in-water work required to replace or repair the seawall. Results of the most recent sediment sampling program are provided in the Final EIS and its Appendix Q, Hazardous Materials Discipline Report. The potential effects of these
The potential effects of the project on fish and wildlife in the Lake Union basin, as well as Elliott Bay, are included in the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report. Specific analyses of potential project effects on ESA-listed species and designated critical habitat are included in the biological assessment for the preferred Bored Tunnel Alternative. The primary factors potentially affecting fish and wildlife in the Lake Union basin are water quality issues related to runoff during construction and operation of the project. These potential effects are also addressed in Appendix O, Surface Water Discipline Report, of the Final EIS.

Effects of the project on bull trout and designated bull trout habitat were analyzed in the project's Biological Assessment. The Final EIS contains a general discussion of project effects on fish during project operation in Chapter 5 and construction in Chapter 6.

There are a number of sources of creosote piles in the project area. For the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the removal of a portion of the overwater structure at Pier 48, as prior mitigation for constructing the temporary overwater ferry access bridge, would result in the removal of at least 300 piles from the nearshore habitat. In addition, there are a number of wooden piles that support the overhanging sidewalks along the waterfront. These would be removed and replaced with cantilever sidewalk support structures. Under the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the removal of the existing seawall face would also result in the removal of a number of compounds on aquatic life is also discussed in the Final EIS and in its Appendix N, Wildlife, Fish, and Vegetation Discipline Report.
support piles and associated timbers. The removal of such material is part of the mitigation for the project, leading to long-term beneficial effects on aquatic resources in the area. The Bored Tunnel Alternative does not include the replacement of the existing seawall, or any in-water construction activities, so none of the creosote piles and timbers would be removed as part of the preferred alternative. Discussion of the potential effects of creosote pile removal is discussed in Appendix N, Wildlife, Fish, and Vegetation Discipline Report, of the Final EIS.

Vibratory and direct pull methods of pile extraction are preferable over the use of a clamshell dredge. However, the least environmentally impacting method of pile removal shall be used as appropriate for the site conditions. In area of contaminated sediments, the pile might be cut off near the mudline and capped to minimize disturbance of the substrate. Clean sediments would be placed over areas where piles have been removed.

F-009-011
A biological assessment was submitted to the Services identifying the direct and indirect impacts of the Bored Tunnel Alternative on ESA-listed species and habitat, thereby initiating the ESA Section 7 consultation. The biological assessment also addresses the cumulative effects of other past, present, and future non-federal projects occurring within the project action area. This information is summarized in the Final EIS, along with the direct, indirect, and cumulative impacts of the project on other fish and wildlife species. The project team greatly appreciates the involvement of USFWS, NMFS, and other resource agencies throughout the NEPA process, and will continue to coordinate with these agencies both within and outside of the ESA consultation process.
The project has changed substantially since the Draft EIS was submitted in 2004. Because of this, we have responded to comments submitted in this comment letter but have not included comments made on February 27, 2004.

Thank you for providing specific feedback related to the format of the Draft EIS. We are pleased that Ecology thought the document was more user-friendly and accessible to public and agency reviewers.
Thank you for reviewing the 2004 Draft EIS, Appendix D, and Appendix G. Responses to your key comments are addressed in the specific responses to comments that follow.

Views from the existing Alaskan Way Viaduct, and similar views from the Elevated Structure, Cut-and-Cover Tunnel, and Bored Tunnel Alternatives were assessed in the Final EIS. Appendix D, Visual Quality Discipline Report, and Appendix E, Visual Simulations, were also prepared to support the Final EIS. These documents provide an assessment of the visual character and quality of the views, as well as the likely viewer response of drivers and passengers. Scenic views from the SR 99 roadway are described in the text as an element of enjoyment for drivers and passengers.

For all the alternatives, a variety of scenic views are available to a variety of groups of viewers with a range of sensitivity based on the activities of the viewers. A thorough discussion of both visual resources and viewer response is provided in the Final EIS and its Appendix D, Visual Quality Discipline Report. Decision-makers are provided with an assessment of the range of visual quality impacts for the alternatives as one of a multitude of factors.

Many people have expressed that they enjoy the views when traveling on the viaduct. The visual character and quality of the views, as well as the likely viewer response of drivers and passengers, were discussed for each alternative in the 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS.

The Final EIS analysis considers views in the SR 99 corridor, which is designated as a City of Seattle Scenic Route, and identifies and
assesses designated view corridors primarily along east-west streets. Views from the road and of the road are both assessed. Visual quality mitigation measures are presented in Chapter 8.

S-001-005

Your comments about inconsistency in the 2004 Draft EIS are noted. Please note that Appendix G, Land Use Discipline Report, has been revised since the publication of the 2004 Draft EIS. See Appendix G, Land Use Discipline Report, of the Final EIS for the current discussion of the Seattle Comprehensive Plan and Seattle Shoreline Master Program goals and policies.

S-001-006

The project would support Goals G 87 and G 88 identified in this letter in much the same manner as Goals LG 99 and LG 100 in the Comprehensive Plan. The build alternatives would provide access to the downtown and waterfront areas. Improved visual and pedestrian connections may also result from the build alternatives, especially with the tunnel alternatives. These changes may assist in encouraging new development and economic activity downtown and along the waterfront.

Regarding Policies L186 through L189 in this letter, the proposed project would not direct potential land uses to certain areas along the waterfront. It may result in opportunities for new uses in places along the project route; however, the type of uses and where they might be concentrated or otherwise located would be determined by other factors such as zoning and development regulations. These regulations may or may not meet policies calling for incentives for public amenities on private property and objectives for water-dependent businesses or other uses. Additionally, the City has the Central Waterfront Plan and the Central Waterfront Project that will help guide potential development opportunities in this area.
It is not certain that the "choice of a preferred alternative is likely to drive the development or redevelopment of the Central and South Harbor front." Future development would also be determined by a number of other factors, like local economic conditions. Development and zoning regulations will have a strong influence on future development throughout the project area. Additionally, the City has the Central Waterfront Project which also will help to guide development there.

Shoreline goals and policies, as expressed in Attachment A, would provide additional guidance for future uses along the waterfront. The project will comply with appropriate shoreline regulations in place at the time of construction. Permit conditions likely to be attached to project approvals would help assure this compliance. Regarding goals and policies of the shoreline program, it is expected that the project would be consistent with the intent of many of these objectives, as indicated in the Final EIS Appendix G, Land Use Discipline Report.

The 2004 Draft EIS Land Use Technical Memorandum did address potential impacts related to shoreline goals and policies. Although page 33 did refer to the Shoreline Management Plan in a single sentence as noted, that same report devoted six pages (pages 45 to 50) to analysis of potential impacts related to specific shoreline goals and policies. This information has been updated in the Land Use Discipline Report (Appendix G) included in the Final EIS. It is acknowledged that the shoreline program will provide important direction for future land use in the project area, including construction of the project.
For the preferred Bored Tunnel Alternative, the construction of a temporary ferry access bridge would not be necessary.

However, both the Elevated Structure Alternative and Cut-and-Cover Tunnel Alternative would include construction of a temporary ferry access bridge between Pier 48 and the Colman Dock ferry terminal. This would be necessary to maintain vehicular access to the ferry operations during construction. This temporary structure would be needed to allow cars to travel from remote ferry holding to the ferry loading terminal. As such, this use would be accessory to the Washington State Ferries water-dependent use. The project would obtain permits as necessary for this temporary use.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront
Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

S-001-011
The Seattle Comprehensive Plan designations appear on updated exhibits and in Appendix G, Land Use Discipline Report, included in the Final EIS.

S-001-012
A Memorandum of Agreement has been developed between WSDOT and the Puget Sound Clean Air Agency to help eliminate, confine, or reduce construction period emissions for many larger and longer term projects in Washington State.

Mitigation measures, including those for air quality, are described in the Final EIS.
An effective "Clean Construction Zone" includes the following:
- All diesel equipment uses ultra-low sulfur diesel.
- All diesel equipment fifty horse-power or greater, that is on the job for greater than thirty days, is equipped with diesel oxidation catalysts, or emission control technology or recovering that achieves similar emissions reductions.
- A staging zone is established for trucks that are waiting to load or unload at a location where public exposure to diesel emissions is minimized.
- All idling is limited to three minutes or less.

During the past two years, staff from WSDOT, Ecology, the Puget Sound Clean Air Agency, the Puget Sound Regional Council, Region 10 EPA, the Federal Highways Administration, and the Federal Transit Association has participated in a series of air quality "Round Table" discussions associated with proposed transportation projects in the Central Puget Sound Region. During these meetings, Ecology and the Clean Air Agency regularly communicated their concerns to WSDOT regarding potential increases in toxic air emissions from transportation projects that might impact the area's residential and business districts. Ecology specifically identified reconstruction of the Alaska Way Viaduct as the project most likely to impact air quality in the downtown Seattle area.

Ecology fully supports a collaborative approach between air and transportation agencies that best serves the citizens of Washington; one that resolves these air quality concerns, while still addressing the transportation needs for the Puget Sound Region. Ecology invites the Department of Transportation to work with the Air Program to begin implementation of developing a "Clean Construction" zone by participating in a "Clean Construction" workshop hosted by Ecology scheduled for Fall, 2004. Our attachment contains comments that provide greater detail on the need for the mitigation measures described above and how best to achieve them. (See Attachment B).

III. HAZARDOUS WASTE

We are resubmitting the Hazardous Waste comments from Ecology's preliminary DEIS comments:

AWV Hazardous Materials Discipline Report

A. Mid-to heavy-range petroleum hydrocarbons usually contain several different polynuclear aromatic hydrocarbons (PAHs), some of which are carcinogenic. PAHs need to be addressed here. (p.87)

B. Chlorinated compounds, like TCE and PCE, produce their breakdown products, like dichloroethylene (DCE) and vinyl chloride (VC) in subsurface by anaerobic biodegradation. DCE and VC are very common constituents in contaminated dry cleaning sites. (p.87)

The following text has been inserted into Appendix Q, Hazardous Materials Discipline Report:

Polycyclic aromatic hydrocarbons (PAHs) – some of which are carcinogenic, are present in heavy-range petroleum hydrocarbons and are also created during the burning process as result of incomplete combustion. PAHs are also present in creosote, which is primarily comprised of heavy-range petroleum hydrocarbons. PAHs may be associated with petroleum releases, such as leaking heating oil USTs, lubricating oils from the former railroad use, burned timbers, and creosote treated timbers or pilings that may have been used to support railroad trestles, the former elevated roadway (Alaskan Way), or piers along the waterfront.

The following text was inserted in the discussion of solvents: “These compounds result in breakdown products such as dichloroethylene (DCE) and vinyl chloride that are also associated with dry cleaning operations.”
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

Groundwater levels along the alignment were monitored for a year to evaluate potential seasonal variability. Data was collected hourly using pressure transducers and dataloggers. The groundwater data was also compared to Elliott Bay tide levels at Colman Dock. Groundwater fluctuations are primarily in response to tides. The intent of the EIS statement was that the existing subsurface currently experiences a fluctuation due to tides and the proposed structure is not anticipated to cause greater fluctuations than currently experienced. This issue will be further addressed in the final design of the structure. Mitigation measures for groundwater mounding are included in the Final EIS.

Thank you for providing feedback on the Draft EIS. The majority of
Ecology reviewers that provided comments liked the format of the document. We acknowledge that this view is not shared by all Ecology reviewers, and we appreciate your comments.

The lead agencies are glad to hear that the Air Quality Program found the format useful, educational, and user-friendly.

**S-001-018**
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.
Please accept these comments as a replacement to the first three comments in the Water Quality section that we originally submitted to your office on June 8th, 2004. Comment #4 in our original submittal remains unchanged.

I hope that this resubmittal of our comments does not pose an inconvenience for you. If you have any questions regarding this letter, please do not hesitate to contact me at (360) 407-6789 or via e-mail at twa461@ecy.wa.gov.

Sincerely,

[Signature]

Theresa M. Swanson
Ecology-WSDOT Liaison
Shorelands and Environmental Assistance Program Comments on Draft EIS for Proposed Alaskan Way Viaduct and Seawall Replacement Projects

Attachment A

Attachment A: Current Seattle Shoreline Master Program Goals and Policies

The Seattle Shoreline Master Program consists of the:

*Shoreline Master Program Policies* (Ecology-approved, July 31, 1997), which is included in the Seattle Comprehensive Plan - Land Use Element as Section H - SHORELINES;

and

*Shoreline Master Program Regulations* (Ecology-approved, January 16, 1998), which is included in the Seattle Municipal Code as Section 23.60 – Shoreline District.

These two components together comprise the current, official Seattle Shoreline Master Program. Copies are located at both Department of Ecology Headquarters in Lacey and at the Northwest Regional Office in Bellevue.

The *Shoreline Master Program Policies/Seattle Comprehensive Plan Land Use Element, Section H – SHORELINES* addresses numerous aspects of the Seattle shoreline, including Shoreline Use; Access; Transportation; Conservation; Economic Development; Recreation; History, Culture, and Enhancement; Process; Area Objectives for Seattle’s Shorelines; Height in the Shoreline District; and Land Use Figure 9 – Seattle Shorelines, (environment designations map).

The current formally adopted SMP goals and policies pertinent to the Harbor front and the Project Corridor are listed below:

**SHORELINE USE**

**GOALS**

G75 Establish shoreline uses that result in long term over short term benefit.

G76 Plan for and encourage the integration and location of compatible uses within segments of the shoreline.

G77 Locate all non-water dependent uses upland to optimize shoreline use and access.

G78 Provide a management system that will plan for and permit all reasonable and appropriate use through a system of priorities.

G79 Protect those areas of shoreline that are geologically dangerous or fragile, or biologically fragile.

**POLICIES**

8
L163 Permit only those uses or conditions that retain use options for future generations unless identified benefits clearly outweigh the physical, social, and/or economic loss to future generations since competition between uses for shoreline does not generally occur at one moment, but over a period of time. Water dependent uses generally shall have priority. Preference will be given in the following order:

1st Protection and enhancement of natural areas or systems; those identified as containing or having unique geological, ecological, or biological significance.

2nd Water-dependent uses: all uses that cannot exist in any other location and are dependent on the water by reason of the intrinsic nature of their operations. However, because of their historic role and legal recognition by the City, floating home moorages are designated as a water-dependent use. Such designation does not imply support for increase of floating home moorages. The intent of this policy is to recognize the existing floating home community in Lake Union and Portage Bay, while protecting natural areas, reserving public access to the shoreline, and preventing the displacement of water dependent commercial and manufacturing uses by floating homes. Areas with substantial concentrations of existing floating homes shall be given a designation that preserves residential uses.

3rd Non-water dependent uses: those uses that do not need a waterfront location to operate.

L164 Define in the Land Use Code all appropriate shoreline uses and provide site development performance standards and other appropriate criteria indicating minimal acceptable standards and other appropriate criteria indicating minimal acceptable standards to be achieved. Uses shall be preferred in the following order: (A-E)

A. On waterfront lots:

1. Protection and Enhancement. Uses that provide for protection and enhancement of natural areas or systems.
2. Water-dependent uses. Uses which are dependent on the water by the intrinsic nature of their operation.
3. Water-related uses. Uses which are not intrinsically dependent on a waterfront location but whose operation could occur economically without use of the water adjacent to the site.
4. Non-water-dependent uses with regulated public access. Uses that are neither water-dependent nor water related because they do not use the water, although a waterfront location may increase their profitability. Such uses provide a public benefit because they provide an opportunity for substantial numbers of the people to enjoy the shorelines of the City.
5. Non-water-dependent uses without regulated public access.
B. On upland lots: Preferred uses are those that complement uses on adjacent waterfront lots.

C. The preference for natural areas shall be accomplished by prohibiting uses that would disrupt natural areas or by providing enhancement of such areas where necessary.

D. Preferred uses will vary according to the purpose of the environment:
   1. If the purpose of the environment is to encourage water-dependent and water related uses, these uses shall be preferred by prohibiting and/or restricting non-water-dependent uses on waterfront lots.
   2. If the purpose of the environment is to provide public access, providing public access shall be preferred by permitting non-water-dependent uses and requiring public access.

E. The determination that a shoreline area is suitable for a particular water-dependent use shall be made by comparing the area’s physical characteristics and existing land-use patterns to the locational requirements of water-dependent uses.

L.165 Identify those areas of shorelines that are geologically or biologically dangerous or fragile and regulate development to prevent damage to property or organisms, and the general public.

L.166 Encourage the development of support industries and services on upland lots by permitting a wider range of uses and more flexible development standards than waterfront lots, and avoiding potential incompatibility with water dependent uses on waterfront lots.

**SHORELINE ACCESS**

**GOALS**

G.80 Provide for the optimum amount of public access – both physical and visual – to the shorelines of Seattle.

G.81 Preserve and enhance views of the shoreline and water from upland areas where appropriate.

**POLICIES**

L.167 Increase opportunities for substantial numbers of people to enjoy the shorelines, by permitting non-water-dependent uses providing public access to locate in waterfront areas less suited for water dependent uses, and by requiring public access on public property.
L168 Promote public enjoyment of the shorelines through public access standards by requiring improvements that are safe, well designed, and offer adequate access to the water.

L169 Except for single family residences, maintain standards and criteria for public access and private use of publicly owned or controlled shorelines to achieve the following:

A. Provide linkages between shoreline public facilities via trails, paths, etc., to connect with terminal boating and other recreational facilities.

B. Indicate by use of signs and graphics all publicly owned or controlled shoreline.

C. If appropriate, offer bonuses for the provision of public access in private property.

D. Require public agencies such as the City, Port of Seattle, and King County Metro, etc., to provide public access opportunities at new shorelines facilities and encourage these agencies to provide similar opportunities in existing facilities.

E. Provide standards and criteria for view and visual access from upland and shoreline areas.

F. Give priority to the operating requirements of the water dependent and water related uses over preservation of views in those environments where water dependent uses are encouraged.

G. Limit off premise signs and regulate other signs to enhance and protect views.

L170 Waterways in Lake Union and Portage Bay are for public navigation access and commerce and in general, the City shall not request that the designation be removed from waterways. The City may request that waterways be vacated only when the City reclaims the area as street right of way or for public park purposes. The City may request that the dry land portions of a waterway be re-designated for the additional purpose of providing permanent public access improvements.

**TRANSPORTATION**

**GOALS**

G82 Develop a transportation network that supports and enhances use of and access to the shorelines.

G83 Relocate transportation facilities which are functionally or aesthetically disruptive to the shoreline.
POLICIES

L171 Encourage the transport of materials and cargo via modes having the least environmental impact.

L172 Encourage the maintenance and future development of inter-modal commuter ferry services, complimentary to other public transportation systems, from both intra-city locations and regional activity centers.

L173 Streets, highways, freeways and railroads should be located away from the shoreline in order to maximize the area of waterfront lots and minimize the area of upland (in shoreline jurisdiction) lots. Streets, highways, freeways and railroads not needed for access to shoreline lots shall be discouraged in the Shoreline District.

L174 The primary purpose of waterways in Lake Union and Portage Bay is to facilitate navigation and commerce by providing navigational access to adjacent properties, access to the land for loading and unloading of watercraft, and temporary moorage. The importance of waterways in providing public access from dry land to the water is also recognized.

L175 Public access shall be preferred use for recaptured rights-of-way. Public rights-of-way may be used or developed for uses other than public access, provided that such uses are determined by the City to be in the public interest and that public access of substantial quality and at least comparable to the right-of-way is provided.

L176 Shoreline street ends are a valuable resource for public use and access. Public or private use or development of street ends shall be designed to enhance rather than reduce public access.

L177 Provide public transportation convenient to the shoreline.

CONSERVATION

GOALS

G84 Preserve, protect and restore areas such as those necessary for the support of wild and aquatic life or those identified as having geological or biological significance.

G85 Insure that all future uses will preserve and protect environmental systems, including wild and aquatic life.

G86 Insure continuing scientific study of Seattle shoreline ecosystems.

POLICIES

L178 Protect the natural environment through use and development standards governing shoreline activities including Best Management Practices (for stormwater).

L179 Areas identified as special wildlife or fisheries habitat should be developed only if no reasonable alternative locations exist and then only if the project is designed to minimize and mitigate habitat damage.
Require that all commercial, industrial, or other high activity uses provide means for treating natural or artificial urban run-off to acceptable standards.

Developments with industrial and commercial uses that use or process substances potentially harmful to public health and/or aquatic life shall provide means to prevent, to the extent possible, point and non-point discharge of the harmful substances.

Dredging and disposal of dredge materials shall be conducted in a manner that minimizes short and long-term environmental damage.

Permit landfill on submerged land that does not create dry land where necessary for a water-dependent or water-related use, for the installation of a bridge or utility line or for wildlife or fisheries habitat mitigation or enhancement. Permit landfill that creates dry land only where necessary for the operation of a water-dependent or water-related use, to repair pocket erosion, or for wildlife habitat mitigation or enhancement. Large amounts of dry land may be created in Lake Union only if specifically approved by the Council for a public park purpose.

Identify those areas that have potential for restoration to natural conditions, develop standards for the conditions in those areas, and provide incentives for achieving such standards.

Support programs that inform the public about shoreline conservation practices, and identify methods by which public and private shoreline owners or community groups may encourage wild, aquatic, and botanical life, and require such methods when appropriate.

Support the study of the shoreline systems that will provide a continuously updated baseline against which to judge the impact of any action.

**ECONOMIC DEVELOPMENT**

**GOALS**

G87 Encourage economic activity and development of water dependent uses by planning for the creation of new developments in areas now dedicated to such use.

G88 Allow a multi-use concept of development, provided that the major use is water dependent and that provides public access to the shoreline yet maintains the economic viability of the use.

**POLICIES**

L186 Concentrate industrial and commercial shoreline uses by planning for the creation of new developments in areas now dedicated to such use.

L187 Identify and designate appropriate land adjacent to deep water for uses that require such condition, such as industry or commerce.

L188 Provide incentives for public amenities on private property.

L189 City-wide objectives for different types of water-dependent businesses and industries:

A. Cargo Handling Facilities.
1. Reserve space in deep water areas with adequate backup space to permit the Port of Seattle and other marine industries to remain competitive with other ports.
2. Work with the Port of Seattle to develop a long-range harbor plan in order to provide predictability for property owners and private industry in the Duwamish and Elliott Bay.

B. Tug and Barge Facilities. Retain Seattle’s role as the Gateway to Alaska and maintain space for Puget Sound and Pacific trade.

C. Shipbuilding, Boatbuilding, and Repairs. Maintain a critical mass of facilities in Seattle in order to meet the needs of the diverse fleets that visit or have a home port in Seattle, including fishing, transport, recreation and military vessels.

D. Moorage. Meet the long-term and transient needs of all of Seattle’s ships and boats including fishing transport, recreation and military. Locate long-term moorage in sheltered areas close to services, and short-term moorages in more open areas. Support the efficient use of Fishermen’s Terminal, the Shilshole Marina and other public moorage facilities. Reduce the displacement of commercial moorage by recreational moorage by encouraging the full use of submerged lands for recreational moorage in areas less suited for commercial moorage. Require large recreational marinas to provide some commercial transient moorage as part of their facilities.

E. Recreational Boating. Maintain Seattle’s unofficial status as a “boating capital.” Allow a variety of boating facilities from launching ramps for small “car top” boats to major marinas. Provide long-term recreational moorage for residents and sufficient short-term moorage close to cultural and recreational centers for visitors.

F. Passenger Terminals. Maintain and expand the opportunity for residents and visitors for convenient travel by ship to local and distant ports. Encourage more passenger-only ferries and cruise ships on the Central Waterfront.

G. Fishing Industry. Maintain a critical mass of support services including boat building and repair, moorages, fish processors, and supply houses to permit Seattle fishermen to continue to service and have a home-port for their vessels in Seattle waters. Recognize the importance of the local fishing industry in supplying local markets and restaurants. Recognize the economic contribution of distant water fisheries to Seattle’s maritime and general economy.
RECREATION

GOALS

G89 Manage publicly owned shorelines that are suitable for public recreation to optimize their potential.
G90 Increase the amount of shorelines dedicated to public recreation and open space.
G91 Identify, protect and reserve for public use and/or enjoyment those areas containing special shoreline qualities that cannot be easily duplicated.

POLICIES

L190 Allow for increased opportunity for the public to enjoy water-dependent recreation including boating, fishing, swimming, diving and enjoyment of views.
L191 Designate as suited for water-dependent recreation areas having natural beaches, large amounts of submerged land for moorage or sheltered waters and the absence of heavy ship traffic and incompatible heavy industry.
L192 Provide for recreational boating facilities including terminals, moorage and service facilities on publicly owned land and encourage the provision of such facilities on private property, if the environmental impact is acceptable.
L193 Increase publicly owned shorelines, giving priority to those areas that lack recreational facilities.
L194 Explore alternative means (other than acquisition) to provide public recreation at the shoreline and on the water.
L195 Use submerged lands for underwater parks when feasible.

HISTORY, CULTURE, RESTORATION, AND ENHANCEMENT

GOALS

G92 Appropriately designate sites and areas of shoreline having historical or cultural significance.
G93 Support and encourage the restoration of these areas or conditions of the shoreline now unsuitable for private or public use, consistent with economic and environmental goals.
G94 Upgrade and/or beautify the public shoreline.

POLICIES

L196 Support and encourage the restoration, preservation and maintenance of areas of the shoreline having significant historical or cultural significance, and a program for shoreline restoration and beautification.
L197 Consider protection of individual sites or aspects of areas identified as having historical significance through landmark designation.
PROCESS

GOALS

G95 Continue shoreline planning by periodically updating the inventory, goals and policies and regulations to respond to changing attitudes and conditions in Seattle's shorelines.

POLICIES

L198 Conduct periodic assessments of the performance of and the need for change in the Shoreline Master Program.

AREA OBJECTIVES FOR SEATTLE'S SHORELINES

GOALS

G96 Recognize the unique opportunities in different areas of our shorelines to accommodate different types of water-dependent businesses and shoreline recreation, and to protect and enhance natural areas and views of the water.

G97 Restore Lower Duwamish Watershed habitat while maintaining the urban industrial nature of the area, its neighborhoods, and the importance of sustaining a healthy and diverse working waterfront and marine ecology.

G98 Strengthen the vitality of a functioning ecosystem within the Lower Duwamish Watershed by integrating projects into their surrounding environments by supporting a diversity of habitats and by strengthening connections between habitats throughout the Watershed.

POLICIES

L199 The Lower Duwamish Watershed Habitat Restoration Plan (December 1996, as may be amended from time to time) should be considered by agencies when conducting planning or permitting activities within the watershed.

L200 It is the intent of the Area Objectives to indicate which of the Shoreline Areas Goals and Policies are to be met on each specific section of shoreline. The Management System for Appropriate Uses as required by the Shoreline Management Act shall consist of the Area Objectives for the diverse areas of Seattle's shorelines, the purposes of the shoreline environments, the shoreline environment designations, and the use regulations and development standards of the Land Use Code.

L201 The Area Objectives for Seattle Shorelines illustrated in Land Use Figure 9 are as follows:

A. Area Objectives for Shorelines of Statewide Significance
   1. Puget Sound (Residential and Recreational Areas)
(The Puget Sound area includes all of the shorelines on Puget Sound within the City limits except the Shilshole area, Elliott Bay, the Harborfront and the Duwamish Waterways).

- Protect the fragile ecology of the natural beaches and fish migration routes.
- Encourage and enhance shoreline recreational activities, particularly in developed parks.
- Provide for quality public access to the shoreline.
- Preserve and enhance views of the water.
- Protect areas developed for residential use in a manner consistent with the Single Family and Multi-family Residential Area Policies.

2. Elliott Bay

(Elliott Bay area is all shoreline area from 24th Avenue West to SW Atlantic Street, except the Harborfront, Harbor Island, and the Duwamish Waterways)

- Reserve waterfront lots for major port terminals, large water dependent and water related manufacturing and industrial facilities and major water dependent recreational developments.
- Choose shoreline environments that are appropriate for recreational and industrial uses based on water depth, amount of dry land, topography and truck and rail access.
- Protect and enhance migratory fish routes and feeding areas.

3. Harborfront (Central Waterfront)

- Encourage economically viable marine uses to meet the needs of waterborne commerce.
- Facilitate the revitalization of downtown's waterfront. Provide opportunities for public access and recreational enjoyment of the shoreline.
- Preserve and enhance elements of historic and cultural significance.
- Preserve views of Elliott Bay and the land forms beyond.

4. The Duwamish

(The Duwamish area includes the Duwamish River from the south city limits north to South Massachusetts on the east side and Southwest Bronson Street on the west side, and including Harbor Island and the East and West Duwamish Waterways.)

- Preserve the statewide interest by encouraging industrial and port uses in this area where such uses are already concentrated while also protecting migratory fish routes.
• Protect Kellogg Island as an important natural resource for fish and wildlife habitat and the opportunity for the public to view these resources.
• Work with appropriate government agencies and shoreline users to reduce the input of pollutants, restore contaminated areas and regulate disposal of dredge spoils.
• Increase public access and recreational opportunities through the Duwamish Public Access Plan.

5. The Shilshole Area
(The Shilshole area is the shoreline area from Northwest 80th Street on the north, to the Chittenden Locks on the south). (Three items)
• Retain the strong water-dependent recreational character of the area. Water-dependent recreational uses and their supporting services are the preferred uses for this area.
• Permit non-water-dependent commercial uses when providing access to the water, protecting views and not usurping land usable for future water-dependent recreational uses.
• On waterfront lots new residential uses may be permitted when adjacent to existing residences. Protect the fish migration routes.

6. Lake Washington and Union Bay (6 items)

B. Area Objectives for Other Shoreline Areas

1. The Ship Canal (2 items)
2. Lake Union and Portage Bay (5 items)
3. Green Lake (2 items)

HEIGHT IN THE SHORELINE DISTRICT

POLICY

L202 The 35-foot height limit of the Shoreline Management Act shall be the standard for maximum height in the Seattle Shoreline District. Exceptions in the development standards of a shoreline environment may be made consistent with the Act and with the underlying zoning where:

A. A greater height will not obstruct views of a substantial number of residences AND the public interest will be served.

B. Greater height is necessary for bridges or the operational needs of water-dependent or water-related uses or manufacturing uses; or
C. A reduced height is warranted because of the underlying residential zone; or

D. A reduced height is warranted because public views or the views of a substantial number of residences could be blocked.
Air Quality Program Comments
on Draft EIS for Proposed Alaskan Way Viaduct
and Seawall Replacement Projects

Attachment B

A "Clean Construction" zone would require that most construction equipment be equipped with
emissions control technology, that diesel vehicles use ultra-low sulfur diesel, that staging zones
for truck loading and unloading are established, and that idling time be restricted. The following
points provide details on the need for mitigation measures and how best to achieve them.

1. Federal, state, and local air agencies, and the U.S. Federal Highway Administration
have identified diesel particulate matter as significantly and adversely impacting
human health at the national, regional, and local level.

The U.S. EPA's National Air Toxics Assessment (as reported in the 2002 Seattle Times
Headline, "Seattle Air Ranked in Nation's Worst 5%) indicates that air toxics in the Puget
Sound Region are in the top five percent in the nation. Local air monitoring data indicate
that the total air toxics risks is approximately 700 in one million, and the risk from diesel
particulate is approximately 500 in one million. Ecology's Air Quality Program has
determined that statewide, 90% of the associated cancer risk due to hazardous air pollutants
is due to diesel particulate matter.

The U.S. EPA has determined that diesel particulate matter is a likely human carcinogen, and
the California Air Resources Board has determined that diesel particulate matter is a human
carcinogen. The Washington Comprehensive Cancer Control Plan identifies three
environmental carcinogens, diesel particulate, arsenic, and radon. Ecology's Air Toxics Plan
identifies diesel particulate matter as the number one toxic air emission of concern.

In addition to carcinogenic effects, fine particles from diesel exhaust pose a significant health
risk because they can pass through the nose and throat and lodge deeply in the lungs, causing
lung damage, premature death, and aggravating conditions such as asthma and bronchitis.
Children, the elderly, and people with existing heart or lung disease, asthma, or other
respiratory problems are most sensitive to the health effects of fine particles. Diesel exhaust
also contains substantial NOx, VOC, CO2 and sulfate emissions that contribute to ozone
formation, acid rain, regional haze, and global climate change.

2. Construction equipment is a significant source of diesel particulate matter in
Washington.

Statewide in 2003, mobile sources emitted 29 tons of diesel particulate matter into the
atmosphere. Diesel emissions from off-highway equipment and vessels exceeded on-
highway vehicles, accounting for 75% of the emitted diesel particulate matter. Construction
equipment is the largest individual source category of diesel fuel, emitting 7.7 tons per year,
compared to on-road, heavy-duty trucks, which emit 6.0 tons per year.
3. Toxic emissions from construction projects can significantly impact downwind populations.

A recent study, conducted by the Northeast States Coordinated Air Use Management (NESCAUM) monitored both upwind and downwind diesel particulate at the following urban and rural locations: a New York City building construction site, a Maine lumberyard, a New Hampshire building construction site, a New Hampshire roadway construction project, and a Vermont dairy farm. Samples were collected within the equipment cabs and at the workforce perimeters, which included nearby residences.

- In all locations, diesel equipment activity substantially increased fine particulate matter exposures for workers and nearby residents, in some cases by as much as 16 times.
- Individual workers' estimated 24-hour exposures exceeded current air quality standards by nearly two to 3.5 times – substantially increasing health risks of workers and nearby residents.
- Diesel PM was estimated to exist at levels that pose risk of chronic inflammation and lung damage in exposed individuals.
- Measured ambient concentrations of acetaldehyde, benzene and formaldehyde around the tested non-road equipment operations were as much as 140 times the federally established screening threshold for cancer risk.

4. Diesel emissions from construction equipment can be controlled through mitigation measures. We cite three case studies.

Case Study 1: I-95 New Haven Harbor Crossing Corridor Improvement Program, Connecticut Clean Air Construction Initiative.

The following contractor requirements apply:

- Emission control devices (such as diesel oxidation catalysts) and/or clean fuels (such as PureNOx) are required for diesel powered construction equipment with engine horsepower ratings of 60 HP and above that are on the project or assigned to the contract in excess of 30 days.
- Truck staging zones will be established for diesel-powered vehicles waiting to load or unload vehicles. The zones will be located where the diesel emissions will have the least impact on abutters and the general public.
- Idling is limited to three minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
- All work will be conducted to ensure that no harmful effects are caused to adjacent sensitive receptors, such as schools, hospitals, and elderly housing by locating diesel-powered engines away from fresh air intakes, air conditioners, and windows.

Case Study 2: Boston "Big Dig" Central Artery Tunnel Project.

Contractors must:

- Keep equipment properly maintained to minimize emissions.
• Turn off diesel combustion engines not in active use and on dump trucks that are idling while waiting to load or unload material for five minutes or more.
• Establish a staging zone for trucks that are waiting to load or unload material at the work zone in a location where diesel emissions from trucks will not be noticeable to the public.
• Locate construction equipment away from sensitive receptors such as fresh air intakes to buildings, air conditioners, and windows.

The Massachusetts Turnpike Authority in collaboration with the Massachusetts Department of Environmental Protection Agency and the Northeast States Coordinated Air Use Management developed a diesel retrofit program requiring large diesel construction equipment be retrofitted with diesel oxidation catalysts.


Any engine fifty horsepower or greater, that is owned or leased by the city, or that is used in any city construction project, must be powered by ultra-low sulfur diesel and the best available technology for reducing emissions of pollutants. This bill initially applies to Manhattan, but will be phased in Citywide over the next two years.

5. The benefits of reducing diesel emissions from construction equipment significantly outweigh the costs.

U.S. EPA Administrator Mike Leavitt's comments on EPA’s recently signed federal regulations requiring stringent emissions standards for non-road equipment and a national cap of 15 parts per million sulfur content for both on-road and non-road diesel fuel clearly express the White House Administration’s belief in the benefits of reducing diesel emissions.

• Equipping off-highway equipment with diesel oxidation catalysis cost between $1,500 and $3,000 per unit, and reduces diesel soot by 20%–30%.
• Using ultra-low sulfur diesel increases fuel costs by three to seven cents a gallon, and reduces diesel soot by 13% to 28%.
• The Regulatory Impact Analysis for EPA’s proposed “Non-road Rule” determined that the annual health benefits for requiring cleaner engines and cleaner fuels outweigh the annual cost to comply by a factor of 58:1.

6. Washington State government recognizes the need protect public health by reducing diesel emissions.

Since the operational lifetime of a diesel engine is often twenty-five years or greater, we should not expect to significantly benefit from recent federal rules on diesel engine and fuel standards during the life of the Alaskan Way Viaduct project. Consequently, state agencies must act accordingly to protect public health by reducing diesel emissions. For this very reason, the Washington State legislature granted Ecology $5,000,000 per year for five years to reduce diesel particulate matter generated by school buses. Governor Locke’s Executive Order for Sustainability (#02-03) directs state government to develop model business
practices, based upon a systematic evaluation of the long-term impacts of an activity or
product on health and safety, communities, and the environment for both current and future
generations. The workgroups assembled to implement this executive order have determined
that reducing air toxics from contracted services is a high priority. Ecology encourages
WSDOT to follow the lead of both the Governor and the State Legislature by adopting
mitigation measures that reduce diesel emissions from transportation projects.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on preliminary drafts of several technical reports. We have coordinated with WDFW while preparing the 2006 and 2010 Supplemental Draft EISs, the Final EIS, and their associated appendices. Your comments have been incorporated as appropriate into the final discipline reports.

Per your request, WSDOT provided a copy of the 2010 Biological Assessment to WDFW on 12/21/2010.

The lead agencies appreciate your involvement during the environmental review process. The preferred Bored Tunnel Alternative would not require an HPA. However, if one of the other build alternatives is selected and it requires an HPA, adequate detail will be provided during the permitting process.

Thank you for providing these details related to the JARPA submittal for the project's HPA. If the selected build alternative requires an HPA, the lead agencies will submit the required information after sufficient designs are developed to provide the necessary plans and specifications requested.

The temporary overwater structure would be needed for either the Cut- and-Cover Tunnel or Elevated Structure Alternatives to maintain access to Colman Dock while the seawall and other nearby structures are under construction. As part of the State Highway System and a critical link the regional transportation network, ferry service must be continued.
throughout construction. The temporary structure between Pier 48 and Colman Dock will be removed before the end of construction, please see the Final EIS for additional information. The temporary overwater structure is not required for the preferred Bored Tunnel Alternative.

**S-002-006**

First, please note that under the preferred Bored Tunnel Alternative the Elliott Bay Seawall will be replaced by the City of Seattle as an independent project.

Both the Cut-and-Cover Tunnel Alternative and the Elevated Structure Alternative include replacing the seawall as part of the project. For those two alternatives the engineering team is currently evaluating options to reduce the risk of potential collapse of portions of the existing seawall during construction, to limit the effects if such a collapse should occur. Construction techniques will minimize the size of equipment to reduce the pressure on the existing seawall. Soil strengthening options are also being moved away from the existing seawall to avoid additional pressure on the existing seawall. The team is also evaluating options for isolating the work area from the marine environment, to reduce or eliminate the potential for high pH cementitious material from entering Elliott Bay.

**S-002-007**

If the seawall is replaced as part of this project, which would occur only if either the Cut-and-Cover Tunnel Alternative or Elevated Structure Alternative is selected, detailed drawings of the seawall face will not be available until later in the design process. At this stage, various treatments are being considered, as are specific treatment options for the vertical seawall to enhance the environment in the project area. The lead agencies welcome input from WDFW to aid in the development of the seawall face.

Information provided in the Final EIS includes all current design
information for the seawall. See the Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for information about potential habitat enhancement measures.

S-002-008
The environmental analysis is obligated to disclose all potential impacts resulting from the project. As project design progresses, the analysis can be more specific as to what areas of contaminated sediments may be disturbed. The project is committed to meeting water quality standards and future sediment testing where appropriate. Operation of the project is not expected to adversely affect future contamination. To aid in the planning process, project-specific sediment sampling was conducted to identify areas of contamination in the project area and the concentrations of these contaminants. The results of this sampling is presented in Appendix Q, Hazardous Materials Discipline Report, of the Final EIS.

Construction of the new seawall, which would be done if either the Cut-and-Cover Tunnel Alternative or Elevated Structure Alternative is selected, would disrupt very limited amounts of existing contaminated sediment due to construction of the new seawall on the landward side of the existing seawall. Removal and replacement of riprap and installation of sheet pile will disturb small amounts of sediment at the face of the existing seawall, although construction methods are being evaluated to eliminate or substantially reduce the need for removing the riprap during the seawall replacement process, and minimize sediment disturbing activities. In any case, the amount of sediment disruption is not anticipated to be of sufficient quantity or duration to have an effect on the aquatic life that currently resides in the area of existing sediment contamination. The small amount of disturbed sediment is expected to settle primarily in the immediate vicinity of the disturbed site where surface sediment is already contaminated.

Best management practices will be employed to minimize disruption and
redistribution of contaminated sediment. Silt curtains, temporary sheet pile, minimal riprap removal and replacement are examples of measures to be considered to minimize disruption and redistribution of contaminated sediment.

S-002-009
This request is outside of the scope of work for the Final EIS and will likely be addressed during the design and permitting phase of the project. The stormwater and CSO outfalls will likely remain configured as they are currently, and will only be replaced where necessary if the selected build alternative includes seawall replacement. As previously mentioned, the preferred Bored Tunnel Alternative would not include replacement of the seawall as part of the project. Construction impacts related to in-water work in areas of potentially contaminated sediment are discussed in Appendix O, Surface Water Discipline Report, of the Final EIS.

S-002-010
The proposed locations and other details regarding the construction staging areas can be found in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report. Although construction barges may be used for staging and equipment handling, disturbance of nearshore habitat is unlikely. See Final EIS Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for discussion of the project's effects during construction.

S-002-011
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final
EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

S-002-012
Water quality treatment for shallow dewatering could consist of storing the water to allow particles to settle or adding chemical flocculants (chemicals that promote flocculation by causing colloids and other suspended particles in liquids to clump together into a mass, called a floc) to reduce suspended particles before the water is discharged from the project area. Any water with contaminant concentrations that reach the contaminant thresholds would have to be treated to the acceptable standards of the King County Wastewater Discharge Permit or Authorization before being discharged to the combined sewer system, or it would need to be disposed of at an approved off-site hazardous waste facility.

S-002-013
The fire suppression system will not use aqueous film-forming foam (AFFF), as described in the Draft EIS. Water that will be used in the tunnel fire suppression system, for both emergencies and system testing will be discharged to the combined sewer system as described in Appendix O, Surface Water Discipline Report, of the Final EIS.

S-002-014
The project is no longer considering the development of a mitigation site because, after the refinement of the project alternatives, the project effects are not such to warrant that level of compensatory mitigation. Proposed mitigation measures are discussed in Chapter 8 of the Final EIS and in Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

S-002-015
The lead agencies appreciate WDFW's participation and
coordination over the course of this project, which has evolved since 2004. Construction methods and mitigation measures have been refined, and the Bored Tunnel Alternative has been identified as the preferred alternative. This alternative does not require in-water work or other activities that would require approval from WDFW. Please see the Final EIS for current information.
Thank you for providing specific information regarding the land management role of the Washington State Department of Natural Resources (DNR).

May 21, 2004

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Subject: Alaskan Way Viaduct and Seawall Replacement Project - Comments

Dear Allison,

Thank you for the opportunity to review the Washington State Department of Transportation’s SR-99 Alaskan Way Viaduct and Seawall Replacement Project Draft Environmental Impact Statement. Portions of the project appear to be located on state-owned aquatic lands. As the proprietary manager of the submerged lands and biological communities affected by the project alternatives, we reserve the right to comment on any and all future permits.

In making specific comments on the proposal, it is helpful to understand the land management role of the Washington State Department of Natural Resources (DNR):

The DNR’s management authority derives from the State’s Constitution (Articles XV, XVII, XXVII), Revised Code (RCW 79.01, 79.90 to 79.100) and Administrative Code (WAC 332-30). As proprietary manager of state-owned aquatic lands, the DNR has been directed to manage the lands “...for the benefit of the public...” in a manner that provides “...a balance of public benefits for all citizens of the state...” that includes:

1. Encouraging direct public use and access;
2. Fostering water-dependent uses;
3. Ensuring environmental protection; and
4. Utilizing renewable resources. (RCW 79.90.455).

In these ways, the DNR is responsible for making land use decisions on state owned aquatic lands (SOAL).

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1 WAC 332-30-906 defines public benefit as “...all of the citizens of the state may derive a direct benefit from departmental actions...”
2 Water dependent uses are those uses that “...cannot logically exist in any location but on the water.” Examples include water-born commerce; terministic; watercraft construction, repair or maintenance; moorage; aquaculture; and log booming. (RCW 79.90.455)
After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies' decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

After the selection of the preferred alternative, the lead agencies will coordinate with DNR and apply for any necessary authorizations.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Rebuild and Aerial Alternatives. After studying several retrofitting concepts, the lead agencies found that rebuilding the viaduct would not be a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative, which was analyzed in the 2006 Supplemental Draft EIS and the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

The views of Elliott Bay, Puget Sound, and the Olympic Mountains are prized by many. Views are currently enjoyed by motorists and passengers traveling on the upper deck of the existing viaduct. However, the views for motorists and pedestrians using downtown streets in the vicinity of the waterfront are interrupted by the existing viaduct structure. This structure is considered by some to be a substantial visual intrusion as well as a source of noise and shadow for the Pioneer Square Historic District and the Central Waterfront. Impacts to views are discussed in the Final EIS and considered in detail in Appendix D, Visual Quality Discipline Report.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. The Bored Tunnel Alternative does not include the connection between Alaskan Way and Elliott and Western Avenues. These would be constructed as a separate project.
We hope you found the technical index on page 161 of the Draft EIS, page 134 of the 2006 Supplemental Draft EIS, and pages 256-257 of the 2010 Supplemental Draft EIS helpful for referencing the Historic Resources and Archaeological and Cultural Resources sections. The Draft Section 4(f) Evaluation included in the 2006 Supplemental Draft EIS (pages 116-121) and 2010 Supplemental Draft EIS (pages 224-244) also provide a discussion of Section 106. Please see the Final EIS for current project information, including a technical index and the Final Section 4(f) Evaluation.

Comment noted. Surveys were performed on historic buildings within the project's APE. Any damage to historic buildings or areaways that occurs during construction would be repaired.

See Final EIS Appendix I, Historic, Cultural, and Archaeological Resources Discipline Report, for more information about potential construction effects on historic resources and the proposed mitigation measures.

The exhibits have been reformatted for increased clarity.
Inventory forms have been provided electronically, along with the additional information needed.

Vibration monitoring is included as part of construction mitigation for all the build alternatives.

The various relevant appendices have been coordinated to indicate more clearly the impacts on historic resources.
As described in Appendix O, Surface Water Discipline Report, of the Final EIS, stormwater will be managed in accordance with the applicable stormwater management regulations. The overall land-disturbing activity is expected to exceed the threshold of 7,000 square feet; therefore, Minimum Requirements #1 through #4 of the WSDOT Highway Runoff Manual would likely apply to both the new and replaced impervious surfaces. The remaining Minimum Requirements depend on the amount of new impervious surface that would be created. Calculations regarding the amount of new impervious surface will be made later in the project during the permitting phase, when more design information is available. At that time, the project team will identify additional Minimum Requirements that would apply.

S-006-002

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS. The proposed stormwater management approach is based on a presumptive approach to compliance using the WSDOT and City of Seattle Stormwater Manuals. To the extent possible this approach does not change sub-basin areas or the volume of water discharged to the combined sewer system.

S-006-003

Stormwater will be managed in accordance with the applicable stormwater management regulations as described in the Final EIS. Specific BMPs will be identified during the design phase of the project. Mitigation measures are described in Chapter 8 of the Final EIS.
Handling of tunnel spoils will be addressed through the development and implementation of management plans and the selection and implementation of appropriate construction BMPs. Details of mitigation for potential construction-related effects, including those from surface water exposure to tunnel spoils, are discussed in the Final EIS Appendix O, Surface Water Discipline Report, Chapter 6.

The Whatcom Railyard will not be relocated by the Alaskan Way Viaduct Replacement Project. Please see the Final EIS for a description of the current alternatives.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS. To the extent possible, this stormwater management approach does not change sub-basin boundaries or receiving waters or cause increase in the volume of stormwater discharged to the combined sewer system.
City? Where is the project commitment and discussion of this issue? Additionally, how about the question Ecology raised earlier during 2004 DEIS. The federal law prohibits discharge of stormwater to a separate sanitary system. It is technically against the federal law and it is Ecology’s strong recommendation that any stormwater previously separated from the system should not be reintroduced into it. Ecology made this comment last time and is making it again this time. WSDOT must address this issue and provide a full discussion. The SDEIS has not done an adequate job in this regard.
The alternatives evaluated in the Draft EIS represented a reasonable range of approaches that met the basic purpose of the project: "to provide a transportation facility and seawall with improved earthquake resistance that maintains or improves mobility and accessibility for people and goods along the existing Alaskan Way Viaduct Corridor."

Subsequently, considerable effort has gone into further planning and development of other alternatives, leading to the current purpose and need statement and alternatives considered in the Final EIS.

The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. This chapter also addresses development of the I-5, Surface, and Transit Hybrid, and subsequent 2009 recommendation by Governor Gregoire, former King County Executive Sims, and former Mayor Nickels to replace the central waterfront portion of the Alaskan Way Viaduct and Seawall with a single, large-diameter bored tunnel. Please refer to the Final EIS for current information.
The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. This chapter also discusses the 2009 recommendation by Governor Gregoire, former King County Executive Sims, and former Mayor Nickels to replace the central waterfront portion of the Alaskan Way Viaduct and Seawall with a single, large-diameter bored tunnel. Please refer to the Final EIS for current information.

The City of Seattle is leading redevelopment efforts and associated environmental reviews processes for the central waterfront, which would take place under NEPA and/or SEPA as appropriate. In addition, the project compliments a number of other projects with independent utility that would provide other improvements such as transit enhancements and a new Alaskan Way Promenade and public space. These individual projects include the Moving Forward projects identified in 2007, as well as improvements recommended as part of the Partnership Process. Please refer to Chapter 2, Alternatives Development, of the Final EIS for a description of these projects.
The project's purpose, as agreed jointly by the three lead agencies, includes maintaining or improving mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct corridor. To the extent improvements east of SR 99 can help meet this goal, they are relevant and have been included in project planning and analysis.

This study has been incorporated into project planning, especially for means to alleviate construction impacts.

The purpose and need statement has been updated since the publication in 2004. Please refer to the Chapter 1 of the Final EIS for the updated version.
The purpose and need of the project specifically addresses the transportation functions of the Alaskan Way corridor, which includes SR 99 and the Alaskan Way surface street. Modifying I-5 or downtown Seattle is not within the defined scope of the project. The Partnership Process, in which Seattle had a lead role, considered potential improvements to I-5.

The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. This chapter also discusses the 2009 recommendation by Governor Gregoire, former King County Executive Sims, and former Mayor Nickels to replace the central waterfront portion of the Alaskan Way Viaduct and Seawall with a single, large-diameter bored tunnel. Please refer to the Final EIS for current information. Several alternatives and options mentioned in this comment are no longer under consideration.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would have severe adverse effects on Seattle. Chapters 5, Permanent Effects, and 6, Construction Effects in the Final EIS provides a more in-depth comparison of tradeoffs for the three alternatives.
Prior to the 2010 Supplemental Draft EIS, the 2004 Draft EIS included an evaluation of the Surface Alternative. However, this alternative was eliminated because it reduced roadway capacity and didn’t meet the project’s purpose as identified in the 2004 Draft EIS.

L-002-007

The Bored Tunnel Alternative, Cut-and-Cover Tunnel Alternative, and Elevated Structure Alternative have been analyzed for the Final EIS. The Bypass Tunnel Alternative is no longer under consideration and was not evaluated in the Final EIS. The Final EIS describes the travel demand and traffic patterns for the build alternatives. The Cut-and-Cover Tunnel Alternative presented in the Final EIS includes a proposed lid covering SR 99 between the waterfront tunnel and the Battery Street Tunnel.

L-002-008

The Supplemental Draft EISs and Final EIS address all of these issues.

L-002-009

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and
Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

L-002-010
Economic impacts associated with increases in congestion, and the associated costs of congestion during construction, are discussed qualitatively in the Final EIS and in Appendix L, Economics Discipline Report. The ability to calculate an appropriate discount rate is limited by the available data generated by the transportation models. In general, the delay due to construction is on the order of minutes.

L-002-011
The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. This chapter also addresses development of the I-5, Surface, and Transit Hybrid, and subsequent 2009 recommendation by Governor Gregoire, former King County Executive Sims, and former Mayor Nickels to replace the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. The Surface Alternative was seriously considered during the Partnership Process, but was rejected because the lead agencies determined it lacked the capacity to serve the long-term needs of the region and does not meet the project’s purpose and need to provide capacity to and through downtown Seattle. Please refer to the Final EIS for current information.

L-002-012
The in-depth discussion of economic effects is provided in Appendix L, Economics Discipline Report of the Final EIS. Construction would inconvenience or disturb businesses and customers adjacent to the project area, including the central waterfront. Construction related effects
would vary considerably over time and area. Mitigation measures would be in place to minimize or avoid economic impacts to businesses, as describe in Chapter 8, Mitigation of the Final EIS.

L-002-013
Final EIS Appendix C, Transportation Discipline Report, provides more complete information about impacts associated with the on- and off-ramps. Traffic forecasts for the corridor, including through trips and trips destined for downtown are also provided.

L-002-014
Very little reliable data documenting the traffic conditions experienced after the temporary closure of the Alaskan Way Viaduct is available. The model was validated using proven travel demand modeling procedures, and these procedures were confirmed by WSDOT and SDOT. Use of a single number for displaying forecast information, and reflected in the proper context, is reasonable as long as the reader understands that forecasts should not be interpreted as precise. Updated data reflecting a range of impacts (where appropriate) is provided in the Final EIS Appendix C, Transportation Discipline Report.

L-002-015
A detailed tolling analysis has been conducted for all alternatives and is described in the Final EIS. Please refer to Appendix C, Transportation Discipline Report, for additional detailed analysis of tolling impacts to transportation elements. Legislative action is required to toll this facility. The potential effects of tolling are evaluated and documented so that the project has considered potential effects if the Washington State Legislature decides to use tolling to fund a portion of the project.

L-002-016
The mode split information has been updated and reflected in the Final
EIS Appendix C, Transportation Discipline Report. The travel demand modeling analysis reflects existing and future transit operating conditions and the routes the transit agencies operate, including those that operate on SR 99. Future transit service is based on transit agency service development plans and the PSRC Metropolitan Transportation Plan, which are not components of this project.

L-002-017
Your comments are noted. Transportation modeling, based on Seattle's land use plans and growth projections, shows a growing demand for this portion of SR 99 and not an excess of capacity. Please see the Final EIS for current information about the proposed build alternatives for this project.
Environmental documentation for the project has been prepared in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4322(2)(c)) and the State Environmental Policy Act (SEPA) (Ch. 43.21 C RCW). The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. The lead agencies have worked extensively with each other, the public, the legislature, and the Governor to align the preferred alternative choice with the available project funding. Chapter 2 of the Final EIS describes the Partnership Process leading to the preferred alternative identification. The Partnership Process began by evaluating eight scenarios or comprehensive solutions to learn what elements worked best together to replace the viaduct.

We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the project team. The project team often holds open-house style public meetings to provide as much flexibility as possible to the public. With an open-house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people. Please refer to the Final EIS for current information.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

Appendix L, Economics Discipline Report, of the Final EIS describes the indirect impacts for future land use in qualitative terms (see the indirect effects section in Chapter 5). Analysis of economic effects on specific parcels not being acquired for new right-of-way would be speculative.
The effects would be dependent upon economic forces beyond the control of this project and outside the scope of the Final EIS.

The economic effects of the loss of short-term, on-street parking are quantified in both Chapters 5 and 6 of the Economics Discipline Report. Construction effects on waterfront businesses are evaluated in Chapter 6 for all alternatives.

L-003-004
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

L-003-005
Please see the Final EIS and Appendix C, Transportation Discipline Report, for an updated discussion of transportation effects and proposed mitigation.
The visual character and quality of the views, as well as the likely viewer response of drivers and passengers, were discussed for each alternative in the 2004 Draft EIS, the 2006 and 2010 Supplemental Draft EISs, and in greater detail in the Final EIS Appendix D, Visual Quality Discipline Report. The Visual Quality Discipline Report analysis considers views in the SR 99 corridor, which is designated as a City of Seattle Scenic Route, and identifies and assesses designated view corridors largely along east-west streets. Views from the roadway and of the roadway are also assessed.

The recommended principles are consistent with the project’s purpose and need.
Thank you for providing support for the EIS layout and documentation approach. The production costs of the EIS was comparable to other EIS documents, despite improvements to the quality of the graphic design and layout. This was made possible by the type of printing process used to produce the document.

The 2004 Draft EIS, 2006 Supplemental Draft EIS, 2010 Supplemental Draft EIS, and the Final EIS provide clear references to technical appendices in an effort to help direct interested readers to detailed information and to make sure the EIS is concise and focuses on relevant issues. The technical appendices are provided to all recipients of the EIS on a CD, making these technical details accessible to the public. Additionally, hard copies of all of the technical appendices are provided at City of Seattle libraries and neighborhood centers to ensure accessibility to the public. This approach is supported by both the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) in the following references:

**NEPA References:**

- 40 CFR 1502.1: Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses.
- 40 CFR 1502.2: Environmental impact statements shall be analytic rather than encyclopedic.

**SEPA References:**

- WAC 197-11-400 (3): Environmental impact statements should be

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<tr>
<th>SECTION</th>
<th>COMMENT</th>
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<tr>
<td>L-003-008</td>
<td>Overall the introductory document provides a good description of the project need, background and the alternatives. Many of the Commissions’ comments relate to clarifying statements and the alternatives and to including more about the larger framework for the project and decision-making process. The 156-page overview document of the DEIS is thorough, informative, easy to read and understandable, making clear references to other technical sections, as appropriate. It is a beautifully laid out document with superb graphic quality, which we hope will be used as a model and precedent for other major transportation projects. We do, however, question the production cost and whether many important details are accessible to the general public. Our main concern is whether people could easily access all the necessary technical information to adequately assess the impacts of each of the 5 alternatives by reading only the DEIS document itself.</td>
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<tr>
<td>L-003-009</td>
<td>The Commissions have a major concern that the DEIS does not inform the reader of the process for developing the preferred alternative. If the preferred alternative is to be developed prior to as concurrent with the response to DEIS comments in a PEIS, it is critical that the public understands how their comments were reflected in the decision process. It must also be clear what role the three lead agencies and the Leadership Group will have in selecting the preferred alternative. Some general description of the process from this point forward would be helpful for the Interested reader and the general public and should be articulated soon.</td>
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<tr>
<td>L-003-010</td>
<td>Chapter 2 serves as the Executive Summary and is well presented. It is a dramatic improvement over typical EIS documents and is directed toward the essence of the task – choosing the best alternative. However, despite the vast amount of interesting data, it is not organized in a way that is very useful in informing a responsible decision. A larger framework for making the decisions around the preferred alternative needs to be added to the Final EIS document, with the data put into a meaningful context for decision makers. Wherever possible there should be...</td>
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The purpose of an EIS is best served by short documents containing summaries of, or reference to technical data, and by avoiding excessively detailed and overly technical information. The volume of an EIS does not bear on its adequacy. Larger documents may even hinder the decision making process.

- WAC 197-11-420 (6): Agencies shall incorporate material into an EIS by reference to cut down on bulk, if an agency can do so without impeding agency and public review of the action.

**L-003-009**

Environmental documentation for the project has been prepared in compliance with NEPA (42 U.S.C. 4322(2)(c)) and SEPA (Ch. 43.21 C RCW). The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. The lead agencies have worked extensively with each other, the public, the legislature, and the Governor to align the preferred alternative choice with the available project funding. Chapter 2 of the Final EIS describes the Partnership Process leading to the preferred alternative identification. The Partnership Process began by evaluating eight scenarios or comprehensive solutions to learn what elements worked best together to replace the viaduct.

We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the project team. The project team often holds open-house style public meetings to provide as much flexibility as possible to the public. With an open-house format, hearing participants are able to come and go to the meetings as their
The Project Description on the cover sheet describes the goals of the project in terms of improved seismic safety and maintaining or improving mobility for people and goods. We strongly recommend that meeting transportation goals and needs throughout the whole area need to be examined, not just a narrowly defined SR-99 corridor.

The Final EIS should also include goals of maintaining or improving:
- the urban environment and pedestrian experience
- clean air, and
- fish habitat and clean water

1.2 The first statement notes that the Alaskan Way Viaduct provides "vital roadway capacity that cannot be provided elsewhere in the region." While we understand that this is a summary document, it should provide rationale to substantiate this statement characterization of this corridor.

The statement "vastly congested I-5" should provide some definition of congestion (% of time/level over capacity, etc.)

This chapter does a good job of describing the five alternatives with accompanying graphics comparing them. The Commissions urge that the following comments and questions be addressed in the Final EIS to provide sufficient information and consideration of alternatives.

2.3 Alternatives:

It seems that another alternative should be examined in the Final EIS which would involve making improvements to I-5 and the arterials and mass transit through downtown to accommodate the traffic through the downtown area with the use of a four lane surface street along the waterfront. This could reduce the construction timeframes and costs and allow for the new roadway to operate at a lower traffic count as the remaining N-S roads would be more effective. It seems that this type of option should already be part of the team's earthquake emergency preparedness planning and should therefore be easy to add to the final EIS.

The tunnel alternatives should evaluate the inclusion of mass transit (fixed rail options). The cost and difficulty of tunneling suggests we should look for the maximum public benefit from each project. It seems irresponsible to not include at least a provision for future mass transit in the tunnel.

The alternatives should also include a variant of the tunnel alternative that places the northbound tunnel under Western, with one lane coming to the surface at Bell and the other two lanes at the Battery Street tunnel.

Cost-benefit analysis is not required by NEPA regulations, though it is clearly appropriate to discuss both qualitative and quantitative values as they pertain to the alternatives and choice made related to the preferred alternative. This type of discussion is included in the Final EIS.

The type of economic analysis requested is not relevant based upon the project's purpose and need.

Both the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evaluated in the Final EIS feature an Alaskan Way surface street with four lanes of traffic (two lanes each direction) and a center turn lane. Double streetcar tracks would allow the waterfront streetcar to share the inside traffic lane in both directions. The center lane would have alternating turn pockets and streetcar stops between Pine and Broad Streets. Both alternatives provide space for sidewalks, bicycle lanes, and parking/loading lanes. However, the lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-
and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives.

Under the Bored Tunnel Alternative, the City of Seattle would lead the project to rebuild and improve the Alaskan Way Surface Street between S. King Street and Pine Street. Generally, the new street would be located east of the existing Alaskan Way surface street where the viaduct is today to create a wider public space along the waterfront the new street would include sidewalks, bicycle facilities, parking/loading zones, and signalized pedestrian crossings at cross-streets.

L-003-013
The summary of the environmental disciplines is contained in Chapter 2 of the 2004 Draft EIS, Chapter 3 of the 2006 Supplemental Draft EIS, and Chapter 2 of the 2010 Supplemental EIS. In the Final EIS, the Summary precedes all of the other chapters. Rather than developing a large matrix, the environmental disciplines are summarized and discussed in a question and answer format. There are several exhibits within the chapters that help to make the information in the text clear.

L-003-014
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would have severe adverse effects on Seattle. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provides a more in-depth comparison of tradeoffs for the three alternatives.
Overall construction effects of each of the alternatives are described in Final EIS Appendix C, Transportation Discipline Report. For environmental documentation purposes, the worst stage of construction for traffic was analyzed quantitatively while the overall construction activities were described qualitatively. Demolition of the existing Alaskan Way Viaduct would occur as part of the viaduct replacement project. As part of that project, standard maintenance of traffic during construction plans will be developed, communicated with the general public, and implemented during project construction.

L-003-015
The level of detail requested for the economic analysis for individual businesses is beyond the scope of the Final EIS. Impacts were evaluated by separate business districts, as appropriate, that share common economic characteristics such as location, reliance on on-street, short-term parking for customers, business size, and access. Assessments of the total value of individual businesses are typically not found within publicly available information. Evaluations of an individual business' ability to "sustain the impacts of continuous construction" would be speculative and would rely on information that may not be able to be independently verified. For these reasons, the economic analysis limited itself to identified business districts as the smallest division for analysis.

The project acknowledges that construction activities, especially along the central waterfront, would interfere with access to businesses. However, a primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. Economic effects and mitigation measures for businesses during construction are presented in Chapter 8 of the Final EIS.

L-003-016
The No Build Alternative is required as part of NEPA, and, therefore, it is
The recommendations for the project's purpose and need statement are noted. The purpose and need statement has been updated since 2004 and reflects the goals and objectives of a transportation facility replacement project (as this project is). See Chapter 1 of the Final EIS for the current purpose and need statement.

L-003-018

This section of the document has been revised since the 2004 Draft EIS and no longer characterizes I-5 as "unusually congested". Please see the Final EIS for revised text, updated information about the project, and the role of SR 99 in the broader transportation network.

L-003-019

Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing...
the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

Although transit has been considered when developing all of the alternatives, rail tracks inside of the tunnel alternatives have not been included as part of the project. Future transit service enhancements in downtown Seattle are expected to include extending the Seattle Streetcar along First Avenue as well as other improvements such as Sound Transit light rail and commuter rail expansion under Sound Transit 2, and the King County Metro RapidRide bus program.

The alignment of the Cut-and-Cover Tunnel Alternative discussed in the 2006 Supplemental Draft EIS and Final EIS does go underneath Elliott and Western Avenues and includes a lid built over SR 99 linking Steinbrueck Park and the Pike Place Market to the waterfront.

The lead agencies have identified the Bored Tunnel Alternative as the
preferred alternative. The Bored Tunnel Alternative does not require or include replacing the Elliott Bay Seawall. The City of Seattle is now leading that project with the Corps of Engineers.

For the Cut-and-Cover Tunnel or Elevated Structure Alternatives, a wide variety of seawall replacements have been considered during project development; however, the best solutions for this project are those described in the Final EIS. There are several reasons for not adding material to create new intertidal areas; one is interference with navigation. Also, new material would cause settlement and damage adjacent piers.

L-003-023
Although costs are an important part of project planning and decision-making, they are purposely not part of the environmental review process. Overall project costs are included with the overall project description and are used by the economic impact analysis. Cost estimates by project element were used by the lead agencies in developing the preferred alternative. It should be noted the Colman Dock project is a separate project and its costs are not included with the Alaskan Way Viaduct Replacement project costs.

L-003-024
The fate of the Battery Street Tunnel depends on which alternative is selected. The preferred alternative for this project, the Bored Tunnel Alternative would decommission the Battery Street Tunnel. This alternative also does not rely on elevated roadways in front of Pike Place Market. Please see the Final EIS for current information about the configuration of each proposed build alternative.

L-003-025
The Final EIS evaluates traffic effects using a wide range of metrics
including travel speeds. Since the document has been revised considerably since 2004, please see the Final EIS for updated information related to traffic effects of the build alternatives.

L-003-026

Hourly distributions of traffic on SR 99 are provided in the Final EIS Appendix C, Transportation Discipline Report.

L-003-027

The Colman Dock project planning has been postponed, so the Final EIS does not compare how each alternative would accommodate improvements to the ferry terminal. Assumptions on future demand for ferry traffic, both for auto and non-auto trips, are based on current planning assumptions agreed to by the project and the Washington State Ferries. The project will continue to coordinate with the Washington State Ferries as the planning for the Seattle Ferry Terminal improvements proceeds. Because the project has evolved since comments were submitted in 2004, please refer to the Transportation Discipline Report, Appendix C, of the Final EIS for current information.

L-003-028

Detailed information regarding travel demand and travel patterns, including the nature of through trips and those destined to downtown, are included in the Transportation Discipline Report (Appendix C of the Final EIS). This information is summarized in the Final EIS. The travel demand model used in the evaluation of trip making for the Final EIS incorporates land use and transportation assumptions found in the City of Seattle Comprehensive Plan and the Metropolitan Transportation Plan.

Very little concrete data is available to document the performance of the transportation system during the relatively short closure of the Alaskan Way Viaduct. Most information is in the form of anecdotal experiences.
Some data was collected by transit agencies as part of their regular operations activities. These sources of information were used in the planning efforts to develop construction mitigation measures. More information about these measures can be found in the Transportation Discipline Report.

L-003-029

The Final EIS clarifies Seattle’s parking goals and policies as they relate to this project.

L-003-030

Views from the existing Alaskan Way Viaduct, and similar views from the Elevated Structure and Tunnel alternatives were assessed in the Final, Draft Supplemental and Draft EISs and Appendices D and E, Visual Quality Discipline Report and Visual Simulations prepared for the EISs. The analysis considers the Alaskan Way corridor designation as a City of Seattle Scenic Route and also identifies and assesses designated view corridors largely along the east-west streets that end at the waterfront. Views from the road and of the road are both assessed. The evaluation of the visual character and quality of the views, as well as the likely viewer response of drivers and passengers and others viewing the corridor considers a variety of elements. Scenic views from roadways are described in the text as an element of satisfaction for drivers and passengers. Decision makers are provided with an assessment of the range of visual quality impacts of the alternatives as one of many factors balanced in selecting a preferred alternative.

L-003-031

The Surface Alternative is no longer being considered because it did not meet the project’s purpose.
After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.

In the Final EIS, the Broad Street Detour would construct a temporary trestle structure from approximately Alaskan Way and Vine Street to the intersection of Broad Street and Western Avenue. The Broad Street Detour is only for the Elevated Structure Alternative and would be in place for approximately 27 months while the improvements to the Battery Street Tunnel are completed. An updated description of the alternatives and of construction-related transportation effects is provided in the Final EIS and Appendix C, Transportation Discipline Report.

The alternatives have been refined since the publication of the 2004 Draft EIS. Please see the Final EIS for current information on the proposed build alternatives.

The build alternatives evaluated in the Final EIS would all meet current seismic standards for earthquake resistance. In addition, the very removal of the existing viaduct addresses the seismic vulnerability along this transportation corridor.

Construction effects are discussed in Chapter 6 of the Final EIS. Safety precautions will be taken during construction. Pedestrians will be directed around heavy construction zones.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at
least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

L-003-035
Access and circulation measures for general purpose traffic in the downtown area are being examined and include assessments of key alternative routes such as I-5 and various major downtown arterial streets. Specific construction mitigation measures are being developed and more information about them can be found in the Transportation Discipline Report of the Final EIS. However, improvements to I-5 would be part of another project.

L-003-036
Induced traffic is a phenomenon that typically relates to an increase in capacity within a corridor (new trips that occur since congestion levels are reduced). With respect to construction impacts, the capacity of the downtown transportation will be reduced during construction activity. Travel forecasting for the project estimates that the opposite of induced traffic—that is, traffic reductions—are likely during the construction period. These reductions in traffic are expected to vary
depending on the magnitude of the capacity reduction. A detailed traffic analysis for construction and operation has been conducted for all alternatives and is described in this Final EIS. Please refer to Appendix C, Transportation Discipline Report, for additional detailed analysis of impacts to transportation elements, including event traffic.

L-003-037
The Surface Alternative was not carried forward into the Final EIS.

L-003-038
The lead agencies worked hard to present a balanced discussion of impacts for all of the alternatives in the 2004 Draft EIS, and all subsequent environmental documents developed for the project.

L-003-039
The types of impacts that you mention are secondary economic impacts. For the EIS, the degree of accuracy regarding the secondary impacts to business is at the business-district level. Because of the diversity of business types along the entire 2-mile corridor, a business-by-business analysis is not feasible and is beyond the scope of this EIS. The Final EIS identifies those business districts that clearly have identifiable risk factors that will be directly affected by the project, such as loss of parking for Pioneer Square. Chapter 8 of the Final EIS includes mitigation measures that address project effects to businesses.

Pedestrian counts along the Central Waterfront were performed twice during 2006 (winter and summer). The results of the pedestrian counts are included in the Transportation Discipline Report, Appendix C of the Final EIS.

L-003-040
The 2004 Draft EIS evaluated one construction plan that considered brief
closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Construction noise and vibration effects are qualitatively discussed in the Noise Discipline Report. Please refer to Appendix F, Noise Discipline Report, for additional details. Construction of the project will require nighttime construction activities, and the City of Seattle requires a Major Public Project Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance. The Major Public Project Noise Variance will be presented for public comment. With regard to the potential for nighttime construction light, the City will also be regulating the degree of light allowed through the various construction permits that will be necessary, such as street use. Mitigation measures are described in the Final EIS, Chapter 8.

The Final EIS discusses the economic impact of the project during construction on businesses in Chapter 6 and presents potential...
mitigation measures in Chapter 8. The main objective of the mitigation measures included in the Final EIS is to maintain the viability of these waterfront businesses that will bear the brunt of the economic impacts during construction. The mitigation measures are intended to provide mitigation for all businesses along the entire construction corridor.

L-003-043

Specific construction haul routes will be identified based on final construction staging and phasing plans for the project and will be fully developed with the construction contractor. Chapter 6 of the Final EIS and Chapter 6 of Appendix C, Transportation Discipline Report, contain some information regarding proposed construction routes during the various construction stages as well as transportation effects during the most severe stage of construction. Overall, construction haul traffic would not comprise a significant portion of the overall downtown traffic volumes. Efforts will be made to route construction haul trucks in a manner that limits the impact to general traffic.

L-003-044

Chapter 6 in the Wildlife, Fish, and Vegetation Discipline Report, Appendix N of the Final EIS, discusses the potential for delivery and removal of construction materials by barge. Barge operations would be similar to existing vessel navigation movements along the shoreline. The use of barges would be determined by the contractor and any activities would be subject to permit conditions.

L-003-045

The impacts to neighborhoods, particularly residential areas, are described in the Final EIS Appendix H, Social Discipline Report, Chapter 5, Operational Effects, Mitigation, and Benefits. Chapter 8 of the Final EIS also presents potential mitigation measures.
Please see the Final EIS for updated information about construction sequencing.

The project has been in close coordination with the transit agencies that operate services in downtown Seattle and would be affected by project construction activities. Appendix C, Transportation Discipline Report, of the Final EIS documents a range of measures to help maintain existing transit service levels, and proposes opportunities for new service strategically targeted to points of origin that are heavily affected by project construction.

Detailed analysis of transportation elements associated with all alternatives is provided in Appendix C, Transportation Discipline Report, of the Final EIS. Vehicle and person throughput is presented as one of the many transportation related measures included in the appendix.

Opportunities to improve or develop alternate corridors are limited by the lack of parallel routes, the densely developed setting, and competing needs/uses on alternate routes. Opportunities on alternate corridors were considered prior to initial screening and again during transportation planning for the construction period. If the preferred alternative is selected, the City of Seattle's Central Waterfront Project would create 9 acres of new public space along the waterfront corridor once the viaduct is removed.

The application of travel demand modeling to estimate projected users followed by traffic operations models to study the detailed effects on
traffic operations caused by the projected users is a standard component of transportation planning. Please see the Final EIS and Appendix C, Transportation Discipline Report, for updated traffic analysis for the build alternatives.

L-003-051
The ranges of measures of effectiveness are intended to provide a broad and comprehensive picture of transportation conditions for each of the alternatives studied. While they inform the selection of a preferred alternative, no formal scoring or weighting system was employed to combine the results of these measures. Therefore, measures that in some ways quantify similar aspects were not double counted. Please see the Final EIS and Appendix C, Transportation Discipline Report for updated analysis.

L-003-052
The Final EIS includes detailed analysis of the Bored Tunnel Alternative, the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative. For the Bored Tunnel Alternative, northbound off-ramp and southbound on-ramps would be provided at Republican Street. A northbound off-ramp to Western Avenue and a southbound on-ramp from Elliott Avenue would be provided under both the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative. Please see the Final EIS Appendix C, Transportation Discipline Report, for detailed analysis of these designs and their relative impacts.

L-003-053
The configuration of the project alternatives and transportation analyses consider known planned developments and reflected growth projections developed by the Puget Sound Regional Council. Note that vehicle throughput measurement locations were selected based on the ability to directly measure and compare across the range of project
alternatives. Please see the Final EIS Appendix C, Transportation Discipline Report, for updated analysis.

L-003-054
The analysis employed makes use of standard, accepted tools and practices available to transportation planners. Travel forecasting was conducted using a version of the regional travel demand model developed by the Puget Sound Regional Council. This tool is used to estimate forecasted conditions for all major projects in the 4-county Puget Sound region. While some elements of the model are fixed (population and employment forecasts, for example), the model is not inelastic in nature. Travel choices are based on relationships between travel opportunities and costs. Hence, fewer trips are forecast in the study for reduced-capacity alternatives than for higher-capacity alternatives (see screenline tables in the Transportation Discipline Report). The traffic operations analysis is consistent with procedures and methods described in the Transportation Research Board’s Highway Capacity Manual.

L-003-055
The selection of screenlines used in the traffic analysis of the Alaskan Way Viaduct Replacement Project was based on lead agency accepted locations and did take into consideration location of ramps and arterials critical to the function of SR 99 and the neighboring street and highway grid.

L-003-056
All travel demand modeling, traffic forecasts, and traffic operations analysis has been updated for the the Final EIS. The assumptions, findings and results of the analysis are presented in Appendix C, Transportation Discipline Report.
Thank you for your comment.

The alternatives presented in the 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS represent a reasonable range of approaches that can meet the purpose and need for improvements. Chapter 3 describes the No Build Alternative, which is essentially the "non-operational Alaskan Way Viaduct" scenario referred to in this comment. Chapter 3 explains the lead agencies' approach to analyzing this alternative in the Final EIS.

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. According to this law:

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington’s traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate $2,800,000,000. In order to fund this obligation, the legislation further identifies sources of funding: $2,400,000,000 of state funding and $400,000,000 of toll funding.

In the absence of toll funding, WSDOT would still have the authorization to issue contracts up to $2,800,000,000, but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

The alternatives analyzed in the 2004 Draft EIS focused on replacement of the existing viaduct. Mid-to-high capacity transit developments are
being addressed by other agencies, specifically Seattle Department of Transportation (e.g., South Lake Union Streetcar), King County Metro (e.g., RapidRide), and Sound Transit (e.g., Link Light Rail, Sounder). Potential fixed guide-way high-capacity transit (HCT) alignments that have been developed in the long-range plans for these agencies and at present do not include the SR 99/Alaskan Way Viaduct corridor.

In the south portal area, the northbound off-ramp to downtown would have a transit-only lane to accommodate buses. In the north portal area, transit lanes are included on Aurora Avenue connecting to Wall Street and Third Avenue and transit lanes on Aurora Avenue between Harrison Street and Denny Way. Refer to the Final EIS Appendix C, Transportation Discipline Report, for more details.

L-003-060
More information about pedestrian access to the waterfront for all the build alternatives can be found in the Final EIS Appendix C, Transportation Discipline Report. Effects on pedestrian facilities during construction are addressed as well. Pedestrian facilities are described in Chapter 5 and construction effects are covered in Chapter 6 of the Transportation Discipline Report.

L-003-061
The alternatives analyzed in the Final EIS did not include items other than those directly relating to replacement of the existing viaduct. High-capacity transit (HCT) developments are being addressed by other agencies, specifically Sound Transit and King County Metro. Potential HCT alignments that have been developed in the long-range plans for these agencies did not include the SR 99/Alaskan Way Viaduct corridor.

L-003-062
The Final EIS Appendix C, Transportation Discipline Report, contains an
updated illustration of the City of Seattle’s designated bicycle routes. Please see Chapter 5 of the Transportation Discipline Report for updated details regarding the bicycle facilities associated with each build alternative. Chapter 6 contains details concerning the effects of construction activities on bicycle facilities. Bicycle access would be maintained at all times during construction, although at times it may be necessary to reroute bicycles using temporary facilities/detours that would be designed to minimize user inconvenience.

L-003-063

A hierarchy of views and a ranking of the relative value of views were not provided in the 2004 Draft EIS or Appendix D, the Visual Quality Technical Memorandum. The Visual Analysis Matrix in Exhibit 5-1 of Appendix D provides a numerical assessment of visual quality, but does not take into consideration viewer response. The analysis avoids providing a quantitative rating, and rather describes changes in visual character, visual quality, viewer exposure or viewer sensitivity. Impacts on views are not readily quantifiable in a manner that is assured of reflecting community consensus. The relative importance given to views is just one of many factors to be balanced by the lead agencies in the course of making design decisions. The analysis is intended to provide a consistent means of describing the differences between alternatives, but is not intended to provide a quantitative rating.

Appendix D has been revised considerably since the publication of the Draft EIS in 2004. Please refer to the updated discipline report appended to the Final EIS.

L-003-064

Views from the Washington State Ferries are discussed on page 13 of the Draft EIS Appendix D, Visual Quality Technical Memorandum. Views from the ferries are analyzed, but were excluded from visual simulations because of the viaduct’s limited visual prominence from a distance.
greater than the end of Piers 55-59, as is indicated in the existing conditions view in Draft EIS Appendix E, Visual Simulations Exhibit A-43. The views from the piers are discussed and provide an accurate description of the character of near views from the ferries. The views from the ferries are not described as of low value. As indicated in Draft EIS Appendix D, page 13, the views from the ferries are of the downtown skyline and the piers visible from the water. Views of the existing viaduct are partially obscured by intervening pier buildings and provide a neutral base to the prominent views of the city skyline from the ferries. The minor element of the viaduct in views from the ferries does not provide an impression of automobile dominance.

The sensitivity to views of ferry users is characterized on page 9 of the Draft EIS Appendix D, Visual Quality Technical Memorandum, in terms of viewer sensitivity based on activities, the visual context, expectations, and interests. In those terms, commuters are likely to be less sensitive to views than tourists (as indicated on page 54). The presence of tourists as a component of the viewing population is discussed for the various areas from which views are assessed, including Pioneer Square, the Central Waterfront, and the Pike Place Market area.

L-003-065
The character of the viewing population and viewer sensitivity discussion is based primarily on the typical activities of viewers. General information on viewer population is provided where available. The factors that affect viewer population in an urban context are varied and complex. Where visual quality may be a factor, it is only one of many likely factors. Other factors such as circulation patterns, destinations such as work place, cultural destinations, restaurants, services and retail stores also play a part. The project does identify the potential for attracting a larger viewer population along Alaskan Way for those alternatives that eliminate an aerial structure. Please see Appendix D, Visual Quality Discipline Report, of the Final EIS for the current visual quality discussion.
Visual coherence is one element of the unity of views as discussed on pages 7 to 9 of the 2004 Draft EIS Appendix D, Visual Quality Technical Memorandum. The existing viaduct does not eliminate visual coherence from views toward downtown. The viaduct does present a visual intrusion, blocks or screens views of vivid landscape features such as the Olympic Mountains or the downtown skyline, and reduces the visual coherence and compositional harmony of views. However, visual coherence of views is provided by a number of elements, not all of which are impacted by the viaduct. The general view of the downtown from the west encompasses a contrast between the water areas of Elliott Bay and the Puget Sound on one hand and the downtown skyline on the other, which together provide a compositional coherence (page 40). As indicated on page 3, the viaduct contrasts with the building character and the character of street corridors, as would the Elevated Structure Alternative.

The lead agencies disagree that the existing viaduct, or Elevated Structure Alternative, obscures the system of streets and blocks of buildings to the extent that it affects "way finding" from the waterfront to the easterly neighborhoods within the city. In addition to the viaduct, there are a variety of other elements that affect "way finding," such as the topographic break and lack of connecting vehicular streets between Spring Street and Wall Street.

Please see the revised Visual Quality Discipline Report, Appendix D of the Final EIS, for the current visual quality discussion.

The visual impacts analysis discusses the potential impacts of the project compared to existing visual conditions and existing public policies. The visual context of the past is not directly relevant to the discussion of direct or indirect effects of the project. The Seattle
waterfront and downtown skyline has seen much change since the 1950s, so even if the viaduct is removed, recapturing the views from that time period is not possible.

The historic context of the corridor is discussed as it relates to the visual context of designated Historic Districts and in the cumulative effects analysis for the project, found in Chapter 7 of the Final EIS.

**L-003-068**

In the urban context of the SR 99 corridor, the light produced by normal arterial lighting is of greater intensity and more constant than vehicle headlights. For rural unlighted highways, vehicle headlights can be a substantial source of light and glare for unlighted surroundings. For urban arterials with streetlights, the light source from headlights is generally less than the light projected from the roadway surface. In addition, the direction of vehicle lights is likely to be in the direction of travel and not toward adjacent uses, except at curves. The design of the barrier at the edge of the Elevated Structure Alternative will interrupt the beam of vehicle lights at curves and result in little or no spillover to surrounding areas. For these reasons, the discussion focuses on light and glare from roadway lighting as the appropriate measure of impact.

**L-003-069**

Visual quality effects during construction are described in text in Chapter 6 of the Visual Quality Discipline Report, Appendix D of the Final EIS. The type of visual impacts likely during construction would generally reflect the lack of visual coherence inherent in a site that is in the process of being built. There is little comparative value to the decision-making process in providing a matrix of visual quality impacts during construction.
Discussion of the visual effects of the tunnel operations building (which would house the vents) is in Chapter 5 of the Visual Quality Discipline Report.

Please note that for the Final EIS, the Visual Analysis Matrix is Attachment A to the Visual Quality Discipline Report.

**L-003-070**

Yes, the Waterfront Bicycle/Pedestrian Facility (Waterfront Trail) in Exhibit 3-4 was mislabeled 4; it should have been 5. This error translates to Map 3-5.

On page 23 of the Draft EIS Appendix D, Item 21, the Belltown Cottage Park does not include the P-Patch because the P-Patch is not a recreational facility.

On page 93 of the Draft EIS Appendix D, the text discusses the Tunnel Alternative. Yes, the reference to views north from the Alaskan Way surface street at Yesler Way should have been Visual Simulation A-22.

The flyovers shown in Visual Simulations A-23, A-33, and A-35 are of the overpass for ferry traffic located along Columbia Street connecting the Colman Dock Ferry Terminal to First Avenue as described on page 119 of the Draft EIS.

**L-003-071**

Direct access between the Alaskan Way surface street and the Battery Street Tunnel would not be provided under the three build alternatives evaluated in the Final EIS. Please see the Final EIS, Chapter 5 of the Appendix C, Transportation Discipline Report, for updated detailed analysis of these designs.
L-003-072
New visual simulations have been prepared for the Final EIS. Please see Appendix E, Visual Simulations, for the current simulations.

L-003-073
Vent structures as free-standing structures have been largely eliminated from the design in favor of a single tunnel operations building at each tunnel portal.

The visual simulations (provided in Appendix E) and text in the Final EIS provide a description and a graphic of the approximate height and scale of the tunnel operations buildings. The tunnel operations buildings would conform to zoning requirements.

L-003-074
Traffic-related noise increases are identified as substantial when they increase noise levels by 10 dBA in the state of Washington.

L-003-075
Predicted future operational noise levels at noise sensitive land uses are identified in Final EIS Appendix F, Noise Discipline Report.

The Final EIS Appendix F, Noise Discipline Report, evaluated operational noise levels south of South King Street and at the north end of the project. Existing and future noise levels were reported.

Noise impacts are only evaluated in areas with existing noise sensitive land uses. WSDOT and FHWA only consider mitigation measures for existing noise sensitive land uses. The waterfront area south of South King Street is an industrial area owned by the Port of Seattle. No noise-sensitive land uses currently exist in this area.
The lead agencies are not responsible for providing sound abatement for new development that occurs adjacent to the proposed highway project that is not already planned, designed, and programmed. Provisions of such noise abatement becomes the responsibility of private developers. Therefore, analysis of the potential effects of noise on future land uses was not conducted as part of this project.

Please see the Final EIS for the current noise analysis. For the preferred alternative, the Bored Tunnel Alternative, expected 2030 peak traffic noise levels near the south and north portals are expected to be similar to existing conditions during the facility's operation.

Chapter 8 of the Final EIS presents the proposed mitigation measures for project effects, including potential mitigation measures to address noise effects.

The development potential under all alternatives was considered in the land use evaluation; however, a quantitative analysis of this potential was not attempted. Generally, it was determined that the Bored Tunnel Alternative and Cut-and-Cover Tunnel Alternative would have the greatest potential for future development because they would provide more opportunities along the project route. The Elevated Structure Alternative would continue to provide an above-ground structure and would require a larger footprint than the existing structure. Therefore, future development opportunities in the vicinity of the central waterfront related to this alternative are expected to be more limited than those expected to occur with the tunnel alternatives.

One of the difficulties in specifying the nature of future development on parcels along the project route is the length of time required for
construction. Other activities in the project area could occur during this time and may also enhance or detract from development potential. Thus, the land use discussion generally indicates that future development is expected to be consistent with the underlying zoning of parcels in the project area, but does not speculate further about the variety of possibilities that could occur with each parcel.

Regarding the project’s influence on property values, it is less certain how much impact the project would have. The Final EIS acknowledges the project’s potential to affect adjacent land uses, but regarding property values, the project would be only one of many factors that may determine future market values of local properties.

Any enhancement in land values that may occur as a result of the project would likely take place after the construction period has ended. Again, because construction would be completed several years in the future, it is difficult to predict events and conditions at that time. Economic conditions are often one of the strongest influences on market values, and these conditions may vary greatly from one year to another. If, for example, the Seattle area economy continues to decline substantially as the viaduct is being replaced, completion of the project would likely have less immediate influence on the price of real estate and other goods and services. Because of all the considerations that go into the purchase of property, the Final EIS does not speculate on how the project might influence the value of land, buildings, or services in the area.

**L-003-079**
The City of Seattle is the lead agency for the Central Waterfront Project and one of the lead agencies for the Elliott Bay Seawall Project. As such, the project staff has been closely following and coordinating with the City’s Central Waterfront Project since the waterfront planning effort was initiated in 2003. The Final EIS briefly describes both of these City
projects and indicates that the Central Waterfront Project is an independent project that complements the Bored Tunnel Alternative.

L-003-080
Chapter 2 of the Final EIS describes the project's history, explains the decision-making process that led to the development of the alternatives analyzed in the Final EIS, and describes public coordination efforts.

L-003-081
Please see Appendix G, Land Use Discipline Report, of the Final EIS for an updated discussion of applicable state, local, and regional land use plans located in the Affected Environment chapter. However, the Final EIS is meant to present existing land use conditions and the project's potential effects on land use. The document does not speculate about potential development patterns that might result from anticipated (not adopted) zoning or land use designation changes.

The Bypass Tunnel Alternative has been dropped from further consideration. Please see the Final EIS for current information on permanent parking impacts for each build alternative in Chapter 5 and the mitigation proposed to address these impacts in Chapter 8.

L-003-082
The street design that was referred to in this comment was associated with the Bypass Tunnel Alternative, which was not carried forward for further evaluation in the Final EIS.

L-003-083
Chapter 5 of the Draft EIS Appendix G, Land Use and Shorelines Technical Memorandum, presents operational impacts of the proposed project, also sometimes referred to as direct impacts. Chapter 7 of this report presents secondary and cumulative impacts, which considers
impacts from the project in combination with other projects and actions in the area. Thus, Chapter 5 acknowledges that direct impacts from operating the build alternatives are not expected to be great; however, Chapter 7 acknowledges that there may be some influences to land use as a result of the project when considered together with other actions.

While such potential future influences are not precise, Chapter 7 does indicate that during the construction period for the project in combination with other projects: "these projects will be expected to contribute noise, dust, and traffic congestion to the project area." After construction, "the proposed build alternatives could indirectly help stimulate changes in land uses for Terminal 46, where land use may differ from containerized cargo handling facility that is there today." Also, "changes in land uses may be encouraged by overall improvements associated with the new roadway."

As this chapter is describing, proposed improvements throughout downtown and the greater project area will have some influence on changes in existing land uses. Where some properties may be underdeveloped currently, new development may take place. Existing uses may be converted to different uses, in accordance with existing or proposed zoning designations. Development may be transformed from industrial or commercial uses to more office, service, or residential uses. While this is possible, it is noted that the exact type and pace of development changes downtown and elsewhere cannot be predicted because other influences, such as economic conditions, will also determine changes that may transpire.

Please see the updated Appendix G, Land Use Discipline Report, for the current land use discussion.
Chapter 6 of the Land Use Discipline Report (Appendix G of the Final EIS) discusses potential impacts associated with construction activities of the proposed project. This chapter acknowledges that some existing uses may change as a result of construction activities and does not presuppose that these displacements would return. It does not attempt to predict how many such changes could occur. It is possible that some uses would not survive over the length of the construction period; however, it is not known how many businesses would be affected this way.

The Economics Discipline Report, Appendix L of the Final EIS, addresses business impacts during construction of the project. Please see this appendix for updated analysis and proposed mitigation measures to address effects to businesses.

The parking loss analysis has been updated for the Final EIS and Appendix G, Land Use Discipline Report. Mitigation for impacts associated with potential parking losses is also discussed in the Final EIS, and in Appendix C, Transportation Discipline Report, for this project.

The alternatives presented in the 2004 Draft EIS represent a reasonable range of approaches that can meet the purpose and need for the project. Many options were looked at during the initial phases of the project's screening process, which involved early analysis by the project team and discussions with community groups at more than 140 community meetings and community interviews. A total of 76 initial viaduct replacement concepts and seven seawall concepts were considered, and concepts that were not feasible, or were outside the purpose of the project, were dropped from further consideration. The most workable ideas formed the alternatives analyzed in the 2004 Draft EIS. Additional
screening and analyses were conducted for the 2006 and 2010 Supplemental Draft EISs and the Final EIS.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.

L-003-087
It is unlikely that construction would directly affect facilities in parks that are farther than one block from the construction area. The analysis of an area three to five blocks distant is likely to cover all the direct impacts.

It is not clear that displaced users of parks near the waterfront will more heavily use other parks in the city. The range of uses of recreation facilities along the waterfront is generally related to the waterfront context. Users of recreation facilities along the waterfront may choose to use other park facilities in the city, but would likely remain in the general vicinity.

Please refer to the Final EIS and Appendix H, Social Discipline Report, for current information related to how the project would affect parks. If the preferred alternative is selected, construction effects would be mostly limited to the south and north portal areas.

L-003-088
A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel
Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

Elements of the Rebuild Alternative are now included in the Elevated Structure Alternative, which does not include the lid near Victor Steinbrueck Park because of the roadway’s configuration.

L-003-089
The lead agencies are aware of the concerns surrounding potential construction effects to the Seattle Aquarium. Descriptions of potential construction effects on the Seattle Aquarium and proposed mitigation measures are discussed in Appendix H, Social Discipline Report, of the Final EIS. Chapter 8 of the Final EIS also provides a summary of mitigation measures proposed for the project.

L-003-090
The purpose of the 2004 Draft EIS Appendix I, Social Resources Technical Memorandum, is to evaluate potential effects of the operation and construction of the project build alternatives on social resources. The purpose is not to comprehensively document which parcels would need to be acquired for the different build alternatives, why they would need to be acquired, the nature and severity of the effects, and/or proposed mitigation measures.

The type of information requested in this comment can be found in the following Final EIS appendices: Appendix B, Alternatives Description and
Construction Methods Discipline Report, for detailed information about why the design of the build alternatives or the proposed construction approach, methods, or activities would require the acquisition of parcels; and Appendix G, Land Use Discipline Report, for comprehensive information about the specific parcels or portions of parcels that would need to be acquired temporarily or permanently for the project build alternatives.

There has been a substantial engineering effort that has continued on the project build alternatives since the publication of the Draft EIS, and the effects of property acquisition have been substantially reduced for the build alternatives.

**L-003-091**
WSDOT is responsible for ensuring that mitigation for the project occurs. Considerable effort has been undertaken in the development of mitigation measures in the Final EIS and Appendix H, Social Discipline Report, to assure these concerns are addressed. There will be public outreach during construction of the project, and the proposed measures are outlined in both the Final EIS and Appendix H. The Record of Decision is the document that ultimately will commit the lead agencies to a plan of mitigation measures.

**L-003-092**
This Final EIS provides complete information on the project at this point, but, as this comment points out, ongoing planning and design efforts will continue to produce additional information. We are confident we have accurately described the effects of the project and that additional information will add detail but will not introduce new subjects or change conclusions.
L-003-093
The lead agencies are committed to working closely with disadvantaged communities to avoid or minimize any adverse effects. This commitment is included in the Final EIS.

L-003-094
Access throughout the project corridor will be generally maintained during construction. It is possible that some specific routes may require temporary detours depending on the construction activities. The identification of specific access modifications or detours would occur during final construction planning after final design is complete. The Final EIS contains effects of each proposed build alternative on environmental justice populations; see Chapters 5 and 6. Chapter 8 of the Final EIS presents the mitigation measures that the lead agencies will implement to address any effects to these populations.

L-003-095
Please refer to revised appendices included with this Final EIS. Both have been updated and are consistent with each other.

L-003-096
Transit will play a critical role in maintaining mobility for all populations and members of the community during construction. Please refer to the description of the construction transportation mitigation measures in the Final EIS to see how the project proposes to address potential effects to transit.

L-003-097
Since issuance of the Draft EIS, additional information on potential displacements has been provided. Full and partial acquisitions for the project were identified, and maps showing potential acquisition locations were provided in the Supplemental EIS. This information has been
updated for and included in the Final EIS. The number of potential full and partial acquisitions is identified for each build alternative, along with potential building displacements, and current uses and zoning designations for affected properties.

L-003-098
Your comment is noted. While some of the displaced parking is expected to be replaced, new parking would not be provided for every space lost. Mitigation measures for potential parking losses may include public transportation improvements and some replacement parking in, or near, the project area. Please see Appendix C, Transportation Discipline Report, of the Final EIS for a discussion of potential mitigation measures.

L-003-099
The Final EIS contains information about potential construction impacts with as much specificity that can be provided at the current design stage for the project alternatives. The potential construction durations are noted for the build alternatives. Where construction impacts are certain at specific locations, these impacts have been identified. In most instances, however, impacts at specific locations are less certain, so potential impacts are addressed more broadly. Mitigation measures are included in Chapter 8 of the Final EIS.

L-003-100
Thank you for reviewing 2004 Draft EIS Appendix O, Public Services and Utilities Technical Memorandum.

L-003-101
A cost-benefit analysis is not warranted for the project, because economics are not a direct component of the project's purpose and need. The purpose and need reflects the lead agencies' desire for a safer transportation facility that will maintain or improve mobility, accessibility,
and traffic safety. Economic viability is not the appropriate benchmark for public infrastructure projects, especially this project that has such a strong public safety component.

The level of detail requested for the economic analysis for individual businesses is beyond the scope of this impact analysis. Impacts were evaluated by separate business districts, as appropriate, that share common economic characteristics such as location; reliance on on-street, short-term parking for customers; business size; and access. Assessments of the total value of individual businesses are typically not found within publicly available information. Evaluations of an individual business' ability to continue operating during the prolonged construction period would be speculative, would rely on information that may not be able to be independently verified, and would be subject to economic forces beyond the direct control of the project. For these reasons, the economic analysis limited itself to identified business districts as the smallest division for analysis.

Please refer to the updated Economics Discipline Report, Appendix L of the Final EIS, for current methodology and analysis of economic effects for each build alternative.

**L-003-102**
The project team presented a summary of the business inventory of all businesses (approximately 1,200) within one block of the current SR 99 alignment (Draft EIS Appendix P, Economics Technical Memorandum). This inventory identified approximate business size, access and parking requirements, and business type. The information has been updated for the Final EIS.

The impacts to potentially fragile business districts, such as small retail businesses present in Pioneer Square and the Central Waterfront, that
rely on short-term, on-street parking to support their businesses are identified in the Final EIS Appendix L, Economics Discipline Report.

L-003-103
While it is possible that tourists may choose to avoid downtown Seattle because of a large transportation project, quantifying this possibility is speculative. However, the project can mitigate for the effects that may be a deterrent to tourists. To that end, mitigation measures to address parking and pedestrian and vehicle access effects, as well as business assistance, are discussed in Chapter 8 of the Final EIS. The operations of the cruise ship terminals, and the ability of their passengers to reach tourist attractions at the waterfront, are also addressed in the mitigation measures included in this Final EIS.

L-003-104
Dozens of surface street designs have been considered for Alaskan Way. The design plans are different for the Cut-and-Cover Tunnel and Elevated Structure Alternatives. Each includes the Alaskan Way surface street, a wide pedestrian promenade, and two sets of trolley tracks.
The design for the Alaskan Way surface street has continued to evolve as the project moves forward. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. If the Bored Tunnel Alternative is selected, the final configuration of Alaskan Way would be determined by the Central Waterfront Project led by the City of Seattle. Please see the Final EIS for current project information.
The Final EIS describes the pedestrian and bicycle facilities in the south, central, and north sections of the project. These descriptions can be found in Appendix B, Alternatives Description and Construction Methods Discipline Report, and in Appendix C, Transportation Discipline Report’s Chapter 5, which describes the operational impacts of the project on pedestrian access and mobility. The funding of amenities are not typically addressed in environmental review documents.

A variety of specific routes could be utilized for pedestrian circulation during construction. Effects to existing pedestrian facilities are discussed in the Final EIS and Appendix C, Transportation Discipline Report. A specific detailed proposal for pedestrian detour routes will be developed for the preferred alternative when the specifications for construction are finalized (this will occur after the Final EIS is published). Mitigation measures, such as signage, are proposed to help pedestrians navigate the project area during construction. Chapter 8 of the Final EIS discusses the proposed mitigation.

The Transportation Discipline Report of the Final EIS describes detour routes for transit services including those bus routes affected by major construction activities. The Waterfront Streetcar is not currently operating along Alaskan Way S. but could operate once again between Pioneer Square and the waterfront if a new maintenance facility can be built to replace the one that was displaced by the Seattle Art Museum’s Olympic Sculpture Park. However, during construction activities, it is assumed that the service would not be operable. The final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle.
Any new pedestrian facilities, as well as all pedestrian facilities that are relocated or rebuilt during and after construction activities, will be built to the standards laid out by the Americans with Disabilities Act (ADA). The project lead agencies are committed to full restoration of the Alaskan Way surface street and surrounding area after project construction and will incorporate pedestrian-friendly and ADA-compliant designs. The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle.

The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle. However, non-motorized circulation and connectivity near the waterfront areas have been assessed in greater detail for the Final EIS. Construction plans will continue to be refined and will be intended to minimize non-motorized impacts during construction and to ultimately enhance the pedestrian and bicyclist environment in the long-term. Pedestrian mobility is a critical component for a thriving waterfront and will certainly be highlighted in the ongoing planning work.

The Surface Alternative is no longer being considered for implementation. The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle.
Thank you for your comment regarding agency coordination. Since publication of the Draft EIS in 2004, substantial progress was made on further defining the construction approach and detailed staging plans for the Alaskan Way Viaduct Replacement Project. Concurrently, transportation management plans for the construction period have advanced as well. The project team worked with King County Metro and other public transit operators to develop and assess proposed transit elements for the construction period. These include speed and reliability projects, service enhancements, and service maintenance proposals. Proposed actions are consistent with King County Metro’s Transit Blueprint and also take into account the passage of Transit Now.

The project recognizes the importance, from a regional perspective, of supporting and encouraging increased use of transit services. While growth in transit mode share is anticipated in the region and in downtown Seattle, more recent travel demand forecasts estimate that it will not be as high as what was reported in the Draft EIS. The travel demand forecasting model used for the Draft EIS to develop forecasts for the year 2030 overestimated the mode shift that could occur in that timeframe. The travel demand forecasting model was updated for the Final EIS (Chapter 8, Section 4 – How would regional travel patterns compare?) and now reflects a more likely growth trend in transit mode share for the year 2030.

With respect to the SR 99 corridor, all of the build alternatives provide enough capacity to accommodate projected growth out to at least 2030.
Pedestrian access will be maintained at all times during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Wayfinding systems will also be installed to facilitate pedestrian access in and near the project construction area.

Any pedestrian facility (e.g., sidewalk, bridge, path, etc.) that may be removed to accommodate construction activities will be replaced with a temporary facility in a nearby location. All pedestrian facilities that are relocated or rebuilt during and after construction activities will be built to the standards laid out by the Americans with Disabilities Act (ADA).

The effects on freight and goods transport to and from the BINMIC and connections to the Elliott and Western Avenue corridor is addressed in the Final EIS Appendix C, Transportation Discipline Report.

Throughout the project development process, the lead agencies (FHWA, WSDOT, and the City of Seattle) have been working with the freight community to understand and account for their needs under all of the proposed alternatives.

The Royal Brougham CSO Treatment Facility is no longer proposed for any of the alternatives. As a result, the Royal Brougham (Connecticut) outfall will not be modified.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS.
Thus, water quality impacts in the draft EIS may be understated. Furthermore, analysis in the draft EIS does not support its conclusion that a new outfall will not be required at Royal Brougham; the final EIS should either provide such conclusive analysis or address the impacts of constructing a new outfall at that location.

- The Denny Way CSO treatment plant will come on line in 2005. It was not designed to receive stormwater from the SR 99 project, the added water from SR 99 will change the loading and efficiency of the new Denny Way facilities. The draft EIS does not provide sufficient information to conclude that the Denny Way facility would be able to meet its permit limits with the additional stormwater flows. More analysis is required in order to know whether or not this would cause a significant adverse impact to water quality at Denny Way or to the sediments surrounding the outfalls. (The volume of the one untreated overflow per year at Denny Way could increase significantly under the Convey and Treat Approach.) Additional Denny Way facilities required to accommodate the SR 99 stormwater should be identified and impacts addressed.

WTD believes a viable approach that does not require variances from policies and codes or cause adverse impacts to King County facilities can be identified. Some added hydraulic and water quality analysis is needed to supplement information in the draft EIS in order to conclude that all probable significant adverse impacts are identified. Based on the information available at present, WTD supports the BMP Approach. Please contact Karen Hieber, Water Quality Engineer, at 206-684-1266 to discuss WTD’s comments and to coordinate assumptions for additional analysis.

Our departments look forward to working collaboratively with the lead agencies to add detail to the preferred alternative as we move forward into the final EIS.

Sincerely,

Pam Bissone, Director
King County Department of Natural Resources and Parks

Harold S. Taniguchi, Director
King County Department of Transportation

Attachments

EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.
The project team recognizes the importance of providing transit access to downtown from SR 99. Section 5.5.1 of the Final EIS Appendix C, Transportation Discipline Report, identifies transit connections that would be provided under each of the Alaskan Way Viaduct Replacement Project alternatives. The functionality of the transit connections under each alternative is also called out in this section. Section 5.5.4 of the Transportation Discipline Report documents the evaluation results for potential effects of the build alternatives on transit travel time.

Under alternatives that replace the Columbia and Seneca ramps with access at King Street, there are several different possibilities for routing transit into the downtown area. Also, transit speed and reliability improvements that would be provided to mitigate construction impacts would still be available when the project is completed. These improvements are supported by the project.

Any effects on transit ridership would likely have to consider constraints (additional travel time) and opportunities (increased service coverage) that could occur as a result of alternate access routes. Please see the Final EIS Transportation Discipline Report, Appendix C, for updated analyses for the project build alternatives.

Note that access to and from the south directly to SR 519 is no longer proposed for any alternative. Under the preferred alternative (Bored Tunnel Alternative), access would be provided at locations in the stadium area. Transit access would be supported by a bus-only ramp for northbound travel on SR 99 between S. Holgate Street and S. Royal Brougham Way.

Additional King County Metro transit service will be provided as part of construction mitigation. Improvements to the speed and reliability of...
transit service will also be supported by the project and continue to be in place after construction is completed. While some added travel time would be incurred by buses under the Bored Tunnel Alternative, transit operations would still be maintained. However, transit service enhancements are expected in downtown Seattle; for example, Sound Transit light rail and commuter rail expansion under Sound Transit 2 and the King County Metro RapidRide bus program.

For the Final EIS, access directly to SR 519 is no longer proposed to/from the south on SR 99. Instead, access would be maintained at the Columbia and Seneca Street ramps (for the Elevated Structure Alternative) or ramps in the stadiums area (for the tunnel alternatives). Under the Bored Tunnel Alternative, transit access would be supported by a bus-only ramp for northbound travel on SR 99 between S. Holgate Street and S. Royal Brougham Way. The Final EIS reflects the updated analyses for the project alternatives.

Under the Bored Tunnel Alternative, transit vehicles would use the new SR 99 center lane on- and off-ramps at Harrison Street. In the northbound direction, transit vehicles entering SR 99 would serve zones along Aurora Avenue. As part of the project, transit lanes on SR 99 between Harrison Street and Denny Way and along Battery and Wall Streets would provide continuous exclusive bus treatment from Third Avenue to SR 99 in the South Lake Union area. The project would also include new east-west street connections in the north end, thereby enhancing pedestrian access to transit service.

The Transportation Discipline Report, Appendix C of the Final EIS, includes results of traffic operations assessments relating to each
alternative. For the alternatives carried forward to the Final EIS, travel times and intersection operations affecting transit service were identified. Differences in traffic operations for these alternatives are largely confined to the areas immediately adjacent to the corridor.

WSDOT and partner agencies have or will implement several strategies to keep traffic moving during construction. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the city's Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses. WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

The project concurs with King County that major construction of the replacement of the Alaskan Way Viaduct would both directly and indirectly affect transit operations in downtown Seattle and the major travel corridors serving the downtown area.

In cooperation with King County Metro and other agencies, the project includes a set of actions aimed at managing mobility and reducing travel impacts associated with construction of the project. Many of these strategies help improve street-level transit operations through priority treatments such as preferential signal timing, queue by-pass lanes, transit only and business and transit access lanes and others. The project also will provide support for added bus service levels to accommodate potential higher demand levels during construction. Mitigation measures are included in Chapter 8 of the Final EIS.
Construction impacts to the area north of the Battery Street Tunnel have been evaluated in more detail since the Draft EIS was issued. Please refer to Chapter 6, Construction Effects and Mitigation in the Final EIS Appendix C, Transportation Discipline Report.

The waterfront streetcar service is not currently in service, and it is assumed that it will not be operable along the central waterfront during construction. The final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle.

Transit and pedestrian access to Colman Dock will be maintained during construction.

The final design and construction of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle.

We look forward to continued coordination with King County.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Surface Alternative. As explained in the 2010 Supplemental Draft EIS and the Final EIS, the Surface Alternative does not meet the project’s purpose and need to provide capacity to and through downtown Seattle. Because the project has evolved since comments were submitted in 2004 and 2006, please refer to the Final EIS for current information.
With the Bored Tunnel Alternative, the final location of the streetcar will be determined by the Central Waterfront Project led by the City of Seattle. Both the Cut-and-Cover Tunnel Alternative and the Elevated Structure Alternative include the streetcar along Alaskan Way. The development of the final design plans would include participation by King County Metro.

Since the Draft EIS was published in 2004, transportation planning efforts for the construction period have greatly expanded upon the ideas introduced in the Flexible Transportation Package. Strategies proposed and described in the Final EIS are intended to help mitigate increased congestion, particularly during project construction, as well as provide and support alternative means of travel. Refer to Chapter 8, Mitigation of the Final EIS for details.

Pedestrian access will be maintained at all times during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities/detours, but these detours will be designed to minimize inconvenience. Any pedestrian facility (e.g., sidewalk, bridge, path, etc.) that may be removed to accommodate construction activities will be replaced with a temporary facility in a nearby location. All pedestrian facilities that are relocated or rebuilt during and after construction activities will be built to the standards laid out by ADA.

Final configuration of on-street parking locations and configuration along the waterfront will be addressed in the Central Waterfront Project led by the City of Seattle.

Efforts will be made to ensure that Access vehicles will have reasonable access to important stop areas near the project construction zone, such
as Colman Dock. Construction mitigation measures will be further developed as part of the construction transportation management plan that is developed as construction plans evolve.

L-005-020

The Bored Tunnel Alternative (preferred alternative) does not retain access to the Elliott and Western Avenue ramps. Access for the BINMIC area to the SODO industrial area and other industrial areas south of downtown could be made via Alaskan Way (via Broad Street), I-5, and Mercer Street to the Republican Street access ramps to SR 99 bored tunnel. Trucks carrying flammable or hazardous materials would not have access to the tunnel and would have to remain on surface streets. Analysis of these routing options can be found in the Final EIS Appendix C, Transportation Discipline Report.
L-005-021
Comment noted. Please see the Final EIS, Chapter 7, for the current discussion on cumulative effects for the project.
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.
percent, and the Convey and Treat Approach would reduce the amount of pollutants by approximately 80 percent. However, it is uncertain whether either approach can consistently achieve the stated percent removal in practice.

King County's greatest concern is that the Convey and Treat Approach would conflict with existing State and County policies that prohibit the introduction of new stormwater sources into the sewer system. When stormwater enters the wastewater system, the resulting dilution and variable rate of flow reduces the effectiveness of wastewater treatment facilities. The viewpoint that the impacts of stormwater on wastewater systems should be minimized has led the City of Seattle to spend $480 million and King County to spend $350 million over the last 40 years in CSO control programs. King County is committed to spending another $370 million and the City of Seattle has committed to spending another $90-$110 million on CSO control in the future.

In addition to making CSO control a priority, King County and the agencies it serves currently are engaged in a large effort to reduce the amount of comparatively clean water that enters the sewers through infiltration and inflow. The Convey and Treat Approach would directly conflict with that goal.

A major issue for King County is the large impact that the Convey and Treat Approach would have on the Denny Way CSO facility, a joint King County/City of Seattle CSO control project that is not yet in operation. The facility has been designed and constructed to treat up to 250 million gallons per day of flow during peak flow events. Under the Convey and Treat Approach, the City of Seattle would send a substantially greater volume of flow than the facility was designed to accept. This would change the parameters of the designed treatment process and would significantly affect the facility's performance and ability to meet regulatory requirements.

King County is not desirous of taking on the additional cost and liability that would result from the Convey and Treat Approach, especially since the BMP Approach is a viable alternative for managing stormwater. The BMP Approach would be consistent with adopted policies; it would not require variances from regulations; and it would not cause adverse impacts to King County facilities. We hope that any approach that would discharge stormwater to the sewer system will be eliminated from further consideration.
These clarifications have been incorporated into the Final EIS Appendix K, Public Services and Utilities Discipline Report.

Descriptions throughout the Final EIS have been updated to more accurately describe the County's combined sewer system.
Page 27, paragraph 3: It would be helpful to clarify that the combined sewer system exists only within the City of Seattle. As stated, it sounds like combined systems may exist throughout the King County system (Federal Way to Issaquah to Snohomish County) when, in fact, only Seattle contributes stormwater directly to the King County system.

Page 27, paragraph 5: The statement, “Portions of the combined system have limited capacity” is misleading. The entire King County system has limited capacity, and, most importantly for this discussion, the Elliott Bay Interceptor has limited capacity.

Pages 26-27, Sections 3.4.2 through 3.4.5: The Washington, Madison, and University sub-basins underwent partial separation in the early 1990s, which means some of the stormwater was separated and now is discharged directly to surface waters; however, some of the stormwater continues to enter the combined system, potentially going to West Point. There also may be low-flow diversion structures in the Washington, Madison, and University sub-basins.

Page 27, Section 3.4.5: This section states that stormwater from the University Sub-basin “is now collected and discharged in a stormwater-only drainage system” and discharged to Elliott Bay and that “None of the stormwater runoff from this sub-basin is diverted to the West Point TP.” However, saltwater from the stormwater drainage system is, in fact, entering the Elliott Bay Interceptor and being conveyed to the West Point Treatment Plant. Please see the report, “Saltwater Intrusion into the King County Sewer System,” issued November 6, 2003, by the King County Wastewater Treatment Division. Please explain how saltwater from overflows at the University Street outfall is entering the combined sewer system.

Page 29, Section 3.5.1: The King Sub-basin discharges to the Elliott Bay Interceptor under all but the most extreme storm conditions (see attached figure showing King County wastewater facilities). This makes it, in effect, a “high-flow diversion” for the basin’s stormwater, transferring all of the stormwater pollutants to Denny Way CSO, other King County CSOs, or West Point.

Page 29, Section 3.5.1: Part of the storm flows from the King Sub-basin go into the 39-inch pipe downstream of the King Street Regulator; because these flows enter the system downstream of the regulator, they are conveyed to and treated at the West Point Treatment Plant. The flows that do go into the regulator are either treated at the West Point Treatment Plant or discharged as CSO flow at the King Street outfall.

Page 29, Section 3.5.2: Stormwater from the Pike Sub-basin is discharged through City of Seattle CSOs or the Denny Way CSO, or it is transferred to West Point.

Page 29, Section 3.5.3: During large storm events, salt water from the Vine Street outfall gets into the Elliott Bay Interceptor for treatment at the West Point Treatment Plant. See the report,
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

References to these Washington state regulations and to King County Ordinance 13680 (as King County Code Chapter 28.86) have been added to Section 2 of Appendix O, Surface Water Discipline Report.
**King County Policies**

The citation of King County policies in *Appendix S: Water Resources Discipline Report* (Section 10.5.1) is not complete nor is it completely accurate. The correct citation of Ordinance 13680, Policy CSOCP-4 is as follows:

Although King County’s wastewater collection system is impacted by the intrusion of clean stormwater, conveyance and treatment facilities shall not be designed for the interception, collection and treatment of clean stormwater.

Appendix S excludes the word “although.” The word “although” acknowledges the influence of stormwater on the system and demonstrates the intent that the policy exists in spite of the influence of stormwater on the system.

Another policy in Ordinance 13680 addresses the need to remove infiltration and inflow (I/I) into the system:

**Policy I/IP-1:** King County is committed to controlling I/I within its regional conveyance system and shall rehabilitate portions of its regional conveyance system to reduce I/I whenever the cost of rehabilitation is less than the costs of conveying and treating that flow or when rehabilitation provides significant environmental benefits to water quantity, water quality, stream flows, wetlands or habitat for species listed under the ESA.

Policy also communicates the expectation that the stormwater would be taken only from industry, and states King County’s intent to collect fees to manage that stormwater:

**Policy CSOCP-5:** King County shall accept stormwater runoff from industrial sources and shall establish a fee to capture the cost of transporting and treating this stormwater. Specific authorization for such discharge is required.

Policy directs that King County’s stormwater management programs should not overlap or conflict with City of Seattle programs:

**Policy CSOCP-6:** King County, in conjunction with the city of Seattle, shall implement stormwater management programs in a cooperative manner that results in a coordinated joint effort and avoids duplicative or conflicting programs.

(King County has limited stormwater management responsibilities for only the Lander and Densmore drains.)

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**Attachment 2:**
   *Water Treatment Division*  
   *Comments on Viaducts/Draft EIS*  
   June 1, 2004

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SR 99: Alaskan Way Viaduct Replacement Project  
Final EIS - Appendix S 2004 and 2006 Comments and Responses - Volume 1  
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July 2011
The Convey and Treat Alternative has not been carried into the Final EIS. Improvements to the CSO system are now considered independent projects and are not part of any of the alternatives. Therefore, cost and liability analysis of these measures is not part of this study.

The project would not involve outfall work and only one stormwater management approach is now being considered. To the extent possible, this stormwater management approach does not change sub-basin boundaries or receiving waters.

This detail has been deleted from Appendix K, Public Services and Utilities Discipline Report.
L-005-029
The Royal Brougham CSO Treatment Facility is no longer proposed for any of the alternatives. As a result, the Royal Brougham (Connecticut) outfall will not be modified.

L-005-030
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.
and Treat Approach would increase the volume of the treated discharge as well and possibly would increase the number of events.

In addition, sending flows to the Denny Way CSO would change the chemistry of the facility’s discharge by changing the ratio of flows from the Elliott Bay Interceptor to those from the new Mercer Street Tunnel. The Denny Way CSO project has been designed to blend these flows to meet permit discharge limits. The blended flows will receive screening and disinfection prior to discharge; however, flows from the Mercer Street Tunnel will receive primary treatment (physical settling) while only limited flows from the Elliott Bay Interceptor will enter the tunnel for settling. The increased stormwater from the Convey and Treat Approach would increase the ratio of untreated flows (from the Elliott Bay Interceptor) to treated flows (from the Mercer Street Tunnel). This change could result in the Denny Way CSO not being able to meet permit discharge limits and not being consistent with the project’s Biological Assessment and the requirements of the Endangered Species Act.

**Draft EIS**

Page 20. Convey and Treat Approach:

The discussion of the Convey and Treat Approach describes how stormwater would be managed for the completed project. However, it was not clear in the Draft EIS, whether stormwater and/or dewatering water would be discharged to the combined sewer system during construction. How does the City of Seattle plan to manage stormwater and dewatering water during construction?

If dewatering water is discharged to the sanitary sewer, it would have an effect on parameters such as salinity, pH, sulfides, and turbidity. Does the AWV project plan to build a temporary stormwater treatment facility? If so, a permanent facility to treat the stormwater after construction may be a more viable option than a combined sewer/stormwater facility. The feasibility of this option should be evaluated in the final EIS.

It would be helpful to clarify how stormwater and dewatering flows would be managed during construction so that King County can identify impacts and determine whether a discharge authorization would be required, pursuant to King County Public Rule PUT 8-14 (PR).

**BMP Approach**

**Draft EIS**

Page 18. How do the alternatives affect water quality? Exhibit 2-25 on page 20 indicates that different stormwater management approaches would be used for different project alternatives. It also indicates that the BMP Approach for the Rebuild and Tunnel Alternatives is slightly better environmentally than the Convey and Treat Approach for the Bypass Tunnel and Surface Alternatives or the BMP Approach for the Aerial Alternative. However, the text of the draft EIS makes no mention of different approaches for different alternatives or different water quality benefits, but confusingly states under Convey and Treat Approach that the

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*Attachment 2:
Wastewater Treatment Division
Comments on Viaduct/Seawall Draft EIS
June 1, 2004 Page 9*
Convey and Treat Approach “will reduce the volume of untreated stormwater, resulting in a higher quality discharge.” It would be helpful to explain in the text the different approaches for different alternatives and discuss the different water-quality benefits that would result from each.

Page 18—BMP Approach: The section on the BMP Approach should discuss the benefits of the BMP Approach and state that the BMP Approach, as well as the Convey and Treat Approach, “will reduce the volume of untreated stormwater, resulting in a higher quality discharge.” Appendix S indicates that the BMP Approach will perform as well, even better, than the Convey and Treat Approach.

Denny Way CSO Treatment Plant

Draft EIS

Page 20—Convey and Treat Approach: The draft EIS should provide more analysis of the impacts of the Convey and Treat Approach on Denny Way CSO discharges. The Denny Way CSO project has been designed and constructed to manage about 8.5 million gallons per year of combined flow from the City of Seattle CSOs, primarily from the Lake Union area. The Convey and Treat Approach would significantly increase the loading over the design conditions and may impair the facility’s ability to meet NPDES discharge permit requirements. (See earlier comments under “Convey and Treat Approach.”)

Appendix S: Water Resources Discipline Report

Page 100, Section 7.6: The discussion of the Bypass Tunnel Alternative acknowledges that the Convey and Treat Approach would increase the volume of stormwater in the combined sewer system compared to existing conditions, but states that “this is a very small volume compared to the total volume.” The fair comparison is not project stormwater volume to total sewage, but project stormwater volume to the volume of combined sewage that would not reach West Point for full secondary treatment. The Convey and Treat Approach would at least double the volume to be managed as CSO.

Royal Brougham CSO Treatment Plant

King County has the same concerns about the increased risk from human pathogens that would result from more stormwater being discharged through the Royal Brougham CSO Treatment Plant as described in the previous section for the Denny Way CSO.

Appendix S: Water Resources Discipline Report

Page 60, Exhibit 4-9 and Appendix B: Exhibit 4-9 provides removal efficiencies for different treatment methods. The removal efficiencies provided for the Royal Brougham CSO treatment plant are 80 percent for total suspended solids (TSS), 79 percent for total copper, and 86 percent for total zinc. These levels were based on the assumption that ballasted...
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

The proposed stormwater management approach is based on a presumptive approach to compliance using the WSDOT and Seattle Stormwater Manuals. To the extent possible, this approach does not change sub-basin areas or the volume of water discharged to the combined sewer system.
The complex flow routing analysis is no longer required because the Convey and Treat Approach has been dropped from consideration. Pollutant loads are calculated using the approved WSDOT method as discussed in the Environmental Procedures Manual and the Surface Water Discipline Report. This method does not account for off-site treatment.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

The Royal Brougham CSO Treatment Facility is no longer proposed for any of the alternatives. As a result, the Royal Brougham (Connecticut) outfall will not be modified.

The detailed analysis using flow routing was not used for the Final EIS because the Convey and Treat Approach has been dropped from the analysis and a single approach to managing stormwater is being proposed. WSDOT's standard method for evaluating annual pollutant loads was used to compare each alternative.
The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

Peak toxicity is no longer a concern because the proposed project will not affect CSOs. Potential toxicity of stormwater discharges is discussed in the Biological Assessment prepared for the preferred alternative.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS. An updated pollutant load analysis is also included in the Final EIS. Also, please see the updated Wildlife, Fish, and Vegetation Discipline Report, Appendix N of the Final EIS, for a discussion of project effects on fish and wildlife.

This statement has been removed from the text.
Sections 6.3 and 6.4 of the Final EIS have been revised to include the risks associated with disturbance of contaminated sediment during construction.

WSDOT's Environmental Procedures Manual was used for the pollutant loading analysis. This method evaluates loads for TSS, total copper, dissolved copper, total zinc, and dissolved zinc, because it is representative of pollutants found in stormwater runoff.
Thank you for your comment expressing a preference for the 2004 Cut-and-Cover Tunnel Alternative. The project recognizes the importance of providing sufficient capacity in the SR 99 corridor and efficiently moving people and goods to and through downtown Seattle, which is expressed in the project's purpose and need statement. Because the project has evolved since 2004, please see the Final EIS and Appendix C, Transportation Discipline Report, for the current discussion of alternatives and transportation effects.

The Surface and Bypass Tunnel Alternatives have been dropped from consideration because they did not meet the project's purpose. Both alternatives would have caused substantial increases in travel times and congestion.
None of the alternatives proposed reduce capacity of surface arterial streets. However, in some cases, additional traffic would be shifted to surface arterials as a result of configuration changes associated with SR 99. The traffic analysis presented in the Final EIS illustrates the expected traffic conditions and volumes. With the preferred Bored Tunnel Alternative, the final configuration of Alaskan Way will be determined by the separate Central Waterfront Project led by the City of Seattle.

The EISs prepared for this project present the existing conditions in the study area and discuss the potential effects on the environment to construct and operate each proposed alternative. The EISs are not meant to present contingency plans for catastrophic events.

With the preferred Bored Tunnel Alternative, the seawall will be replaced by the Elliott Bay Seawall Project, which is a separate project led by the City of Seattle. If the Cut-and-Cover Tunnel or Elevated Structure Alternative is selected, the seawall would be replaced as part of the alternative.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative does not include ramps to Elliott and Western avenues. This transportation connector would be implemented by the City of Seattle as part of an independent project. The Elliott and Western Avenue ramp projects have been retained with the Elevated Structure and Cut-and-Cover Tunnel Alternatives. The alternatives have been refined since 2004, please see the Final EIS for the current configuration of each proposed build alternative.
Coordination with the City of Seattle Department of Transportation to review freight route adjustments, including accommodations for over-legal vehicles, is ongoing. Currently, the City allows access through the Seattle Center City, provided over-legal truck operators obtain a permit and operate their trucks only during times allowed in the permit. As the project progresses, outreach to the freight community will continue to address the needs of over-legal trucks either as part of the Bored Tunnel Alternative (preferred alternative) or on the Alaskan Way surface street after construction. Analysis results addressing effects on trucks are provided in Appendix C, Transportation Discipline Report, of the Final EIS.

The project team is committed to continuing to work with the railroads, freight operators, and the Port of Seattle to explore opportunities to minimize both short and long-term impacts to freight rail operations, and container terminal access. All of the above stakeholders have been directly involved in early project design efforts and remain included in efforts involving final project design and construction management planning.
The Elevated Structure Alternative assumes the Broad Street detour during construction, but its route has changed since the Draft EIS. Please see the Final EIS Appendix C, Transportation Discipline Report, for updated construction staging for the Bored Tunnel (preferred alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives. The Elliott/Western Connector is an independent project being led by the City of Seattle. The Elliott/Western Connector would provide a connection from Alaskan Way to the Elliott/Western corridor that provides access to and from BIMMIC and neighborhoods north of Seattle. The connector would provide an overcrossing of the BNSF mainline railroad tracks.

The Mercer corridor from Dexter Avenue to Fifth Avenue is included as part of the Alaskan Way Viaduct Replacement Project. The Mercer corridor from Fifth Avenue to Elliott Avenue is an independent project being led by the City of Seattle. Appendix C, Transportation Discipline Report, of the Final EIS contains supplementary information regarding the Mercer Corridor, which will provide improved east-west travel in the north section of the study area.
All three build alternatives evaluated in the Final EIS would maintain or improve the transportation system connections and vehicle capacity that exist today. Please see the Final EIS, Appendix C Transportation Discipline Report.

The lead agencies acknowledge these comments. The Bored Tunnel Alternative has been identified as the preferred alternative for this project. Please see the Final EIS for current project information.

The travel demand model was updated for the Final EIS and is described in the Transportation Discipline Report (Appendix C of the Final EIS). The update includes improvements to how the model reflects capacity constraints in the roadway network, reduced sensitivity to parking cost assumptions, updated population and employment estimates, updated transit mode share, and verification of network components and their attributes. Please see the Final EIS Appendix C, Transportation Discipline Report, for updated analysis results.

Under the preferred Bored Tunnel Alternative, the City of Seattle is responsible for improvements to the Alaskan Way surface street. Generally, the new street would be located east of the existing Alaskan Way surface street where the viaduct is today to create a wider public space along the waterfront. The new street would include sidewalks, bicycle facilities, parking/loading zones, and signalized pedestrian crossings at cross-streets. Access to Pier 66 would be maintained throughout construction. Transportation mitigation measures can be found in Chapter 8 of the Final EIS.
Access to Pier 66 would be maintained throughout construction with the Cut-and-Cover Tunnel and Elevated Structure Alternatives as well.

**L-006-013**

The lead agencies are proposing to use a large portion of the northwest corner of T-46 as a primary staging area for materials laydown and storage starting at the northern T-46 apron face and using a portion of the apron face at the west corner of the terminal yard. This staging use would require a portion of the container storage area currently used for refrigerated container storage and the demolition of a portion of an existing building on this site. The lead agencies are coordinating with the Port of Seattle on this issue.

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Our cruise terminals operate from May to October. Port calls occur generally on Monday, Thursday, Friday, Saturday and Sunday, during about an 8-9 hour time-frame between 8 am and 5 pm. The economic impact of the cruise ship for the regional economy is significant. In 2004, the Port’s cruise ship terminals are estimated to generate about 1,700 jobs and more than $200 million in business revenue. During the next 10 years, we expect our cruise ship business to grow by about 50%.

(a) **South Segment: Terminal 45**

- Design solutions for the South Segment must avoid that Port property which is needed for container operations. (Neither SR 99 ramps, nor the proposed ferry holding lot or access roads for Colman Dock should infringe on the container terminal.)
- Alternatives as shown in DEIS would severely curtail the functionality of container operations. T-46 is our smallest operating container terminal, its current acreage represents the minimum space requirement for our tenant. Further loss of space would significantly reduce the terminal's viability for container operations, to the detriment of the local economy. Today, the terminal directly supports 1,366 jobs in the local economy, resulting in $73.4 million in personal income and $69.9 million in state and local taxes annually.
The Final EIS discusses the reconfigured Whatcom Railyard with the tail track relocated for the Elevated Structure and Cut-and-Cover Tunnel Alternatives. The design for both the Cut-and-Cover Tunnel and the Elevated Structure Alternatives keeps the tail track operational and maintains access to Terminal 46. For the preferred alternative, the Bored Tunnel Alternative, the railyard would not be altered.

The infrastructure improvements at T-46 that were recently made by the Port of Seattle to support container operations were taken into consideration when the latest alignment designs were developed for both the Cut-and-Cover Tunnel Alternative (Conceptual Design Plans, August 2006) and the Elevated Structure Alternative (Conceptual Design Plans, January 2007).

As part of the SR 519 Phase 2 Intermodal Access Project, the FHWA and WSDOT proposed to increase mobility and safety by improving connections between I-5/I-90 and the stadium area, the waterfront commercial interests, the Seattle Ferry Terminal, and the Port of Seattle's container freight terminals. The SR 519 Environmental Assessment (EA) evaluated the Atlantic Corridor Option, which includes:

- Westbound off-ramp from I-5 to I-90 to the current S. Atlantic Street overpass.
- Improvements at intersections of First Avenue/S. Atlantic and S. Atlantic and Occidental Avenue.
- Grade-separated crossings for both vehicles and pedestrians at S. Royal Brougham Way.

FHWA and WSDOT released the SR 519 EA in late 2007. The project was completed in 2010.
The Port of Seattle is the taxpayer of record for blocks 350.1 and 360.1 (766207631 and 7666207695 [Pier 46]), with the exception of parcel 7666207697 owned by King County (outfall at King Street) and parcels on the west edge of the terminal (7666207696, -698, -699) owned by the State of Washington.

Block 390.1-5 is owned by the Coast Guard (parcel 7666207786) (south of S. Atlantic Street, closer to Elliott Bay). The owner is not displayed on the map, and this detailed information is only presented in Attachment D of Appendix Q, Hazardous Materials Discipline Report, in the Final EIS.

The lead agencies have been coordinating with the Port of Seattle to ensure reasonable truck access to the Port terminals at T-25, T-18, T-5, and the SIG railyard during construction. Please also see the response to L-006-016 above.

Local access during construction will be maintained to the cruise ship terminals as discussed in the Final EIS and in Appendix C, Transportation Discipline Report.

East Marginal Way will continue to provide access to Terminal 46 from the south. A shared use bicycle/pedestrian lane would be located along the west side of E. Marginal Way/Alaskan Way S. and would continue north along the west side of the tail track. In the area near Terminal 46, the S. Holgate Street to S. King Street Viaduct Replacement Project will be constructing the Port Side Trail and the City Side Trail, which are shared use bicycle/pedestrian facilities separated from vehicle traffic. The Alaskan Way Viaduct Replacement Project would shift the location of the City Side Trail slightly.
The Port of Seattle has sold Pier 48 to WSDOT. WSDOT is currently the owner of this property. See the Final EIS for current information about the project's use of Pier 48.

The Port of Seattle has sold Pier 48 to WSDOT. WSDOT is currently the owner of this property. See the Final EIS for current information about the project's use of Pier 48. Construction workers would park in the upland area of Pier 48, northwest of Qwest Field. A temporary overwater access bridge to the ferries would be built between Pier 48 and Colman Dock (between S. Washington Street and Yesler Way). The temporary ferry access bridge would maintain access and egress for ferry operations. The temporary bridge would not interfere with the Washington State Ferries' planned reconstruction of Colman Dock, it would accommodate a range of potential ferry expansion plans while not requiring any of these plans to be constructed before the seawall construction. This overwater crossing would connect to a relocated ferry holding area east of SR 99.

The project will be responsible for replacement of any shoreline public access facilities that may be displaced. Any displacement of the Port's public access by the Colman Dock Project would be a separate action independent of this project, and the project would not be responsible.

Any displacement of the Port's public access by the Colman Dock Project would be a separate action independent of this project, and the project would not be responsible.

WSDOT is now the owner of Pier 48 and the uses that existed in 2004 are no longer there. Mitigation for the potential loss of some parking
spaces along the project route will be provided, but is not anticipated that every space that may be lost will be replaced.

**L-006-023**

Under the preferred Bored Tunnel Alternative, the City of Seattle is responsible for improvements to the Alaskan Way surface street through a separate project. The Cut-and-Cover Tunnel and Elevated Structure Alternatives include a 10-foot parking lane in front of Pier 66. Adequate street access to the cruise terminal facility at Pier 66 and the Victoria Clipper passenger service at Pier 69 is ensured for both facilities. Access for the bus and passenger vehicles that serve those facilities has been a consideration in the design of the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative.

**L-006-024**

Under the preferred Bored Tunnel Alternative, the City of Seattle is responsible for improvements to the Alaskan Way surface street. The Alaskan Way surface street is designated as a primary arterial and major truck route by the City of Seattle. The project team recognizes that it provides the only access to many Port facilities, businesses along the waterfront, as well as to ferry operations at Colman Dock. Vehicular capacity and access to and from the Alaskan Way surface street will be maintained or improved with all build alternatives evaluated in the Final EIS.

**L-006-025**

The soil improvement work that would take place as part of the Alaskan Way Viaduct Replacement Project next to Pier 66 would be far enough away from the Port's bulkhead that any impact on the bulkhead would be unlikely.

With the preferred alternative, seawall replacement would occur under a
The layout for the Alaskan Way surface street have been updated for the Final EIS. Both the Cut-and-Cover Tunnel and Elevated Structure Alternatives will maintain two southbound lanes and a parking lane in the vicinity of Pike Street. The Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project. However, the new street is expected to include sidewalks, bicycle facilities, parking/loading zones, and signalized pedestrian crossings at cross-streets. The ultimate design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

While construction activities near Pike Street may impact operations on Alaskan Way, the project will work closely with the Port and waterfront business to ensure reasonable access is maintained during business hours.

The current air quality modeling analysis is presented in Appendix M, Air Discipline Report, of the Final EIS. Marine vessel, rail, and truck emissions are included in the air quality analysis as background concentrations.
Noise impacts are only evaluated in areas with existing noise sensitive land uses. WSDOT and FHWA only consider mitigation measures for existing noise sensitive land uses. The waterfront area south of King Street is an industrial area owned by the Port of Seattle. No noise sensitive land uses currently exist in this area. Please see the Final EIS and Appendix F, Noise Discipline Report, for the current noise analysis.

The Port of Seattle has sold Pier 48 to WSDOT. WSDOT is currently the owner of this property. See the Final EIS for current information about the project's use of Pier 48.

The project will be responsible for replacement of any shoreline public access facilities that may be displaced. Any displacement of the Port's public access by the Colman Dock Project would be a separate action independent of this project, and the project would not be responsible.

Any displacement of the Port's public access by the Colman Dock Project would be a separate action independent of this project, and the project would not be responsible.

If the preferred alternative is selected, replacement of the seawall would occur under a separate project led by the City of Seattle. Similarly, the Colman Dock Project is a separate project. The Port of Seattle will need to coordinate with those projects to address concerns about their proposed compensatory mitigation sites.

Investigation requirements would be based on property-specific parameters and cannot be determined at this time. However, if
necessary, explorations or other testing can be conducted at night or on weekends, which would minimize potential impacts to ongoing operations. Remedial activities, if necessary, could be accomplished during construction or could be designed to accommodate ongoing operations at the facility.

The statement “Site investigations, if necessary, will be coordinated with the property owner” has been added to the site investigation discussion Section 6.8.2 Recommendations for Further Investigations, Phase II ESA Recommendations of Appendix Q, Hazardous Materials Discipline Report, of the Final EIS. As stated in Appendix Q, Attachment H-1, focused environmental sampling at Terminal 46 may be performed in conjunction with geotechnical design. The only Port property identified for investigation is part of Terminal 46 that would be acquired for tie-backs. No remediation is anticipated. As stated in Section 6.8.2, investigations will be coordinated with the property owner.

L-006-033
Your comments are noted. Please see the Final EIS for the current construction plan for each build alternative, discussion of the expected construction effects, and presentation of proposed mitigation measures to address project effects.

L-006-034
When the Draft EIS was issued, construction planning was at a very early and conceptual stage. The analysis has advanced substantially since that time, and an evaluation of the effects of the Broad Street Detour that is part of the construction approach used with the Elevated Structure Alternative, is discussed in the Final EIS. This evaluation includes more detailed traffic forecasting and operational analysis. The lead agencies recognize the importance of maintaining adequate access for the cruise ship operations at Pier 69 and will continue to coordinate with the Port of Seattle as the construction
planning advances.

The Battery Street Flyover Detour has been eliminated from further consideration.

L-006-035
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

L-006-036
A detailed analysis of traffic operations during the construction period is included in the Final EIS for the alternatives. As noted in your comment, the 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing
the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

In the current construction plans for the build alternatives, freight movements are emphasized on East Marginal Way, and general-purpose traffic and transit are largely directed to First Avenue, Fourth Avenue, and other corridors to the east. Throughout the construction period, local access will be maintained to the cruise ship terminals.

L-006-037
The Final EIS describes the cumulative and secondary impacts of the Alaskan Way Viaduct Replacement Project. It also discusses the specific projects that are likely to be under construction during some portion of the project’s construction period and are likely to be affected by the project’s periodic and longer-term closures of SR 99 and potential detours through the corridor. Also discussed is the ongoing coordination that is occurring now and will continue during construction to minimize the cumulative and secondary impacts that are expected.

A detailed description of the proposed traffic mitigation measures can be found in Appendix C, Transportation Discipline Report, of the Final EIS.

L-006-038
The project team has coordinated continuously with the Port of Seattle to
to minimize both short- and long-term effects on freight rail operations and container terminal access. The Port of Seattle and other stakeholders have been directly involved in design efforts not only for the current alternatives analyzed in the 2011 Final EIS, but for the S. Holgate Street to S. King Street Viaduct Replacement Project which provides an aerial overcrossing at S. Atlantic street to accommodate east-west traffic flow when rail cars block the at-grade roadway. This project also provides an aerial connection with East Marginal Way S., allowing for increased north-south mobility through the project area.

The project design team is currently coordinating with the Port of Seattle as the design and construction planning becomes more defined.

L-006-039

In the south sub-area, the primary construction material haul route would likely use the area around the southbound WOSCA detour off-ramp to S. Atlantic Street. Southbound haul egress would be provided on the existing ramp (which connects to the WOSCA detour). Northbound ingress would feature a temporary adjoining roadway from S. Atlantic Street connecting to the southbound on-ramp at about S. Charles Street. Over-legal loads to the south end of the project area would likely travel via SR 599 to First Avenue S. to the job site. Over-legal loads traveling within the city are required to obtain a special permit, and appropriate routes are selected via the permit approval process.

Alternate routes to port facilities along the waterfront would be via Alaskan Way or exit at S. Spokane Street. Northbound trucks on East Marginal Way S. would be required to use S. Atlantic Street and the East Frontage Road (or First Avenue S.) because Alaskan Way S. would be closed from S. Atlantic Street to S. King Street. A northbound on-ramp to SR 99 would be provided at the S. Royal Brougham/East Frontage Road intersection. A more in-depth discussion of mobility, including freight, is provided in Appendix C, Transportation Discipline Report.
The project team is committed to working with the Port and the freight community to develop alternative freight routes and strategies to address freight concerns during the construction period. Additionally, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

Additional traffic analysis has been completed specifically targeting construction-related impacts, including impacts to east-west arterials. The results of this analysis, plus a list of mitigation measures for reducing travel demand and traffic congestion on key freight routes, are included in Appendix C, Transportation Discipline Report, of the Final EIS.

The lead agencies will coordinate staging activities and the use of affected properties with individual property owners prior to construction. This coordination will include negotiations for potential easements, temporary uses of parcel areas, and access needs for each affected property.

The project team is committed to work with the Port and the freight community to develop strategies to maintain access into and out of the port terminal facilities. To help reduce congestion on East Marginal Way, the project is proposing that this roadway be open only for freight and construction-related traffic (haul route).

Further details about the performance of the Bored Tunnel Alternative (preferred alternative) and construction mitigation measures can be found in the Final EIS Appendix C, Transportation Discipline Report.
The comment has been noted that maintaining uninterrupted service to Port of Seattle container yards T-30 and T-46 and the SIG railyard is very important. Please see the Final EIS and Appendix K, Public Services and Utilities Discipline Report, for current project information about how construction of each build alternative could affect public services and utilities and what mitigation measures are proposed to avoid or minimize the effects.

The project team recognizes the importance of maintaining access to the Port of Seattle terminals during the construction period and for the longer term, even though the Port cruise ship terminal has been moved north to Terminal 91, further from the potential construction staging areas and construction detours. It is the policy of the project to maintain access to all Port facilities during project construction.

The project team continues to work with the Port of Seattle to understand access needs and take steps to accommodate them in the best manner possible as more detail on construction staging and project phasing become available.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.
The project team is committed to working with the freight community to explore opportunities to mitigate construction related impacts.

Since the publication of the Draft EIS, the project team has continuously worked with the Port and members of the freight community to ensure their interests are heard and reflected in the transportation planning process for construction. Measures for managing mobility and access for freight during construction are found in the Final EIS Appendix C, Transportation Discipline Report. In addition, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

Since the publication of the Draft EIS, the project area has been reclassified as in attainment for ozone. The revised PM10 analysis conducted for the Final EIS follows FHWA’s guidance for qualitative hot-spot analyses. Under this approach, the quantitative estimation of emissions is not necessary. Please see the current air quality analysis for this project in Appendix M, Air Discipline Report, of the Final EIS.

A Memorandum of Agreement (MOA) is in place between WSDOT and the Puget Sound Clean Air Agency (PSCAA) to help eliminate, confine, or reduce construction period emissions for many larger and longer term projects in Washington State. This MOA would apply to the Alaskan Way Viaduct Replacement Project. Mitigation measures during construction of the project are shown in Appendix M of the Final EIS.

Project noise effects and proposed mitigation measures are described in the Final EIS and Appendix F, Noise Discipline Report.
May 28, 2004

Allison Ray
AWV Project Office (Wells Fargo Building)
999 Third Avenue, Suite 2424
Seattle, WA 98104

RE: Alaskan Way Viaduct and Seawall Draft Environmental Impact Statement

Dear Ms. Ray:

The Puget Sound Regional Council appreciates the opportunity to comment on the Alaskan Way Viaduct and Seawall Replacement Project Draft Environmental Impact Statement (DEIS). The project represents a significant step toward implementing the region’s long-range growth management, economic, and transportation strategy, VISION 2030, and the Metropolitan Transportation Plan, Destination 2030, through the preservation of a key transportation corridor and the enhancement of one of the region’s major urban centers.

The first portion of this letter provides comments on the DEIS. The comments primarily concern regionally significant land use and transportation issues. The second portion of the letter summarizes the process and steps to be taken to advance the Alaskan Way Viaduct and Seawall Replacement project from a Candidate project to an Approved project in Destination 2030. This is a necessary step before purchasing right-of-way and initiating the construction of facilities.

Destination 2030, the long-range regional transportation plan, includes and generally describes the preservation needs in the Alaskan Way Viaduct corridor. The project, as currently described in Destination 2030, is based on the Washington State DOT’s direction to the Regional Council at the time of plan development.

However, in order for the project to be fully incorporated into Destination 2030, the project sponsor will need to take steps to advance the project from its current status of “candidate project” to “approved project.” Also, once the FEIS is complete for the project, the sponsors should submit a revised project description to be used in refining, or amending the current project description in Destination 2030. This will update the information in the regional plan and provide consistency with the decisions identified in the FEIS.
L-007-001
Vision 2020 has been updated since the Draft EIS. FHWA, WSDOT, and the City of Seattle continue to strive to develop and design the project in a manner consistent with PSRC’s updated plan Transportation 2040 policies and design guidelines. Thank you for your comments, specifically regarding the Draft EIS. The lead agencies recognize the opportunity we have to redefine the waterfront and the SR 99 corridor.
amenities that promote economic activity, and development of a efficient transportation system.”

- RT-8.3 “Maintain and preserve the existing urban and rural transportation systems in a safe and usable state. Give high priority to preservation and rehabilitation projects which increase effective multimodal and intermodal accessibility, and serve to enhance historic, scenic, recreational, and cultural resources.”

Destination 2030, the Metropolitan Transportation Plan, also provides guidance to the Viaduct Project. Destination 2030 states the following.

“Transportation improvements and programs must be focused on establishing a more balanced transportation system, shifting emphasis from movement of vehicles to movement of people and goods. A balanced system provides travel options that include choices for private vehicles, public transit, ridesharing, walking, bicycling, and various freight modes.” (D2030 page 4)

Destination 2030 also contains 10 physical design guidelines (p. 37). “The guidelines are intended to advance fundamental design principles and site development characteristics that can serve as a starting point to achieving successful and mutually supportive connections between land use and transportation.” The following three guidelines are particularly relevant to the Viaduct project:

- #3 - “Link neighborhoods, connect streets, sidewalks, and trails.”
- #6 - “Design for pedestrians and bicyclists.”
- #7 - “Provide usable open spaces for the public.”

It is through this policy lens that we offer the following comments on the information that is contained in the DEIS.

Document Format

The Alaskan Way Viaduct and Seawall Replacement Project Draft Environmental Impact Statement (DEIS) summary document is a very readable and accessible document. The innovative design and discussion format is to be applauded.

Urban Context

This project represents a rare opportunity to design a solution that recognizes this land as a unique resource in the region’s largest urban center. Once the project is completed, we will have to live with the results for many years to come. The project needs to make maximum use of the opportunity.
These considerations are included in the evaluation of alternatives that meet the project’s purpose. The evaluation is contained in the Draft, Supplemental Drafts, and this Final EIS.

Net increases in overall capacity are small under any of the alternatives, and some alternatives evaluated in the Draft EIS reduced overall capacity (Surface Alternative). The Alaskan Way surface street is expanded under several alternatives, but this is in response to reductions in lanes or ramps on the mainline. For example, mainline SR 99 has fewer lanes under the Bored Tunnel Alternative than it does today. This reduction is offset by an increase in lanes on surface Alaskan Way to accommodate downtown trips and a rearrangement of ramp locations to better distribute traffic on the mainline.

A comparison of lane-miles was not conducted since combinations of surface arterials and limited access lanes comprise each alternative, and the carrying capacities of these facilities can vary widely. Please see the Final EIS Appendix C, Transportation Discipline Report, for updated analysis of the three build alternatives: the Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure.

Opportunities to improve or develop alternate corridors are limited by the lack of parallel routes, the densely developed setting, and competing needs/uses on alternate routes. Opportunities on alternate corridors were considered prior to initial screening and again during transportation planning for the construction period.
The Final EIS analyses the Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives. In addition, the Viaduct Closed (No Build Alternative) is carried forward as required by environmental regulations to provide baseline information about conditions in the project areas if nothing were done. These alternatives are fully described in Chapter 3 of the Final EIS.

The project baseline assumptions for 2030 have been updated for the Final EIS. The Transportation Discipline Report, Appendix C, Chapter 2 Methodology and Chapter 5 Operational Effects, Mitigation, and Benefits, respectively, explain how the 2030 No Build Alternative was modeled and how transportation and land use could be affected.

A drawing comparing the width of the current design for the Elevated Structure with the existing viaduct structure is included in the Final EIS.

Although costs are an important part of project planning and decision-making, they are purposely not part of the environmental review process. Overall project costs are included with the overall project description and are used by the economic impact analysis. Cost estimates by project element were used by the lead agencies in developing the preferred alternative. It should be noted the Colman Dock project is a separate project and its costs are not included with this project’s costs.

A cost-benefit analysis is not warranted for the project because economics are not a direct component of the project’s purpose and need. The purpose and need reflects the project lead agencies’ desire for a
safer transportation facility that will maintain or improve mobility, accessibility, and traffic safety. The cost of not maintaining the current benefit of a north-south traffic corridor would be the costs associated with increased congestion as the existing 110,000 vehicles per day use alternative routes. Economic viability is not the appropriate benchmark for public infrastructure projects, especially this project that has such a strong public safety component.

Sales taxes would not be new dollars, as the funds to pay sales taxes would originate either within the Puget Sound Region or within the state (from the funds collected to construct the project). In essence, the project trades gasoline taxes for sales taxes; the result is a transfer of gasoline tax income (collected within Washington State) into individual city and county coffers (collected within Washington State). These are still funds that originate and are spent within the state. In the absence of this project, the gasoline taxes would still be spent on other highway and roadway projects within Washington State, thereby generating their own sales taxes.

An economic analysis for individual businesses is not feasible. Impacts were evaluated by separate business districts, as appropriate, that share common economic characteristics such as location, reliance on on-street short-term parking for customers, business size, and access. Assessments of the total value of individual businesses are typically not found within publicly-available information. Evaluations of an individual business' ability to continue operating during the prolonged construction period would be speculative, would rely on information that may not be able to be independently verified, and would be subject to economic forces beyond the direct control of the project. For these reasons the economic analysis limited itself to identified business districts as the smallest division for analysis.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project.

To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

The analysis employed makes use of standard and accepted tools and practices available to transportation planners. Travel forecasting was conducted using a version of the regional travel demand model developed by the Puget Sound Regional Council. This tool is used to estimate forecasted conditions for all major projects in the four-county Puget Sound region. While some elements of the model are fixed (population and employment forecasts, for example), the model is not inelastic in nature. Travel choices are based on relationships between travel opportunities and costs. Hence, fewer trips are forecast in the study for reduced-capacity alternatives than for higher-capacity alternatives (see screenline tables). The traffic projections are based on travel demand modeling using the PSRC’s regional model and are confirmed by professional judgement. Please see the Final EIS.
How will the peak hour operational findings get incorporated into a more comprehensive assessment of alternative viability, or effectiveness analysis? Two important questions remain: How will the costs and benefits of the alternatives be expressed in a manner that allows comparison (not merely peak-hour measures of effectiveness) and avoids the pitfalls of multiple and non-exclusive measures? And how will the measures be utilized as part of the development of a preferred alternative? The DEIS appears to be silent on these important issues.

It is unclear how traffic impacts from the expanded ferry terminal facilities (diagrams in Appendices W and X appear to display a terminal with four auto slip and two passenger ferry slips) are treated in the operational analysis of the build alternatives. Do these methods differ from a no-build alternative that includes ferry terminal expansion as referenced on page 13 of Appendix C? What are the auto and passenger ferry facility and service assumptions for each alternative?

Detailed analysis of pedestrian movements and additional potential pedestrian demands is lacking though general impacts to existing conditions are discussed by alternative in Appendix C.

It is not entirely clear from the DEIS how the preferred alternative will be developed. The analysis of “measures of effectiveness” relates entirely to the transportation objectives and the transportation technical reporting. Are these to be used in a formal way in the development of a preferred alternative, and if yes, in what manner? Will the leadership team have a formal role in developing the preferred alternative? Some general description of the process from this point forward would be helpful for the interested reader.

Part Two: Steps to be taken to advance the Alaskan Way Viaduct and Seawall Replacement project from a Candidate project to an Approved project in Destination 2030.

- Background. In May 2001, the Puget Sound Regional Council adopted a new regional transportation plan – Destination 2030. This plan included guidance for capacity investments that categorized all regionally significant improvements as either Candidate or Approved (please refer to Guidance for Major Capacity Investments for more detailed explanation of these distinctions). The Alaskan Way Viaduct and Seawall Replacement project is included in Destination 2030 as a candidate project. Candidate projects must satisfactorily address Approved project criteria before being designated as Approved in Destination 2030.

- Process. Destination 2030 includes a policy that enables the Regional Council’s Executive Board to authorize a change in status of regionally significant projects from Candidate to Approved. Listed below is a summary of the requirements.
Appendix C, Chapter 5 Operational Effects, Mitigation, and Benefits, explains how transportation, including ferry service, could be affected.

**L-007-014**

Since publication of the Draft EIS, further efforts have been undertaken to improve the pedestrian assessment for the Final EIS. Additional detail on pedestrian effects is provided in Chapter 5 of the Final EIS Appendix C, Transportation Discipline Report. Chapter 6 of the Final EIS details effects during construction.

One example of these additional efforts is the updated pedestrian volumes that were collected by video along the Alaskan Way surface street in downtown Seattle in August 2006. The purpose of these counts was to quantify pedestrian activity in the summer season along the waterfront for use by the project team in assessing transportation conditions, developing mitigation programs, completing the Final EIS, and furthering project design. Data collected for this effort confirms that pedestrian activity on the waterfront promenade is substantially higher in the summer, particularly during summer weekends.

**L-007-015**

Please see Chapter 2 in the Final EIS for a description of how project alternatives were identified and developed.

**L-007-016**

Thank you for describing this process. The lead agencies have been coordinating with PSRC as appropriate.
The project is located in a Carbon Monoxide (CO) maintenance area. The Final EIS evaluated the reasonable worse case CO operational effects during construction for the preferred Bored Tunnel Alternative. The Bored Tunnel Alternative would meet the standards for criteria pollutants. No additional analysis of criteria pollutants or hazardous air pollutants (HAPs) is needed for the short term effects of demolition of the existing viaduct and construction phase of the project. Puget Sound Clean Air Agency (PSCAA) would regulate particulate emissions (in the form of fugitive dust) during construction activities. A Memorandum of Agreement (MOA) has been developed between WSDOT and PSCAA to help eliminate, confine, or reduce construction period emissions for many larger and longer term projects in Washington State. This MOA would apply to the Alaskan Way Viaduct Replacement Project. Mitigation measures are described in detail in the Final EIS Appendix M, Air Discipline Report.

A conformity determination has been performed for the Tolled and Non-Tolled Bored Tunnel Alternative. Based on the results presented in Appendix M, as well as the results of a WASIST analysis conducted for the year of opening (2015) and PSRC’s long-range transportation plan analysis year (2040), the project would not cause or exacerbate an exceedance of the NAAQS for CO. The Bored Tunnel Alternative would meet the project-level conformity requirements in accordance with 40 CFR 93.123. In addition, the project is included in the Metropolitan Transportation Plan and the Statewide Transportation Improvement Program, demonstrating that it conforms with the Puget Sound region’s Air Quality Maintenance Plan.
The Final EIS and Appendix M, Air Discipline Report, address construction period emissions and presents proposed mitigation measures. This analysis has been updated since the publication of the Draft EIS in 2004.

Six construction alternatives as well as its commitment to implement fugitive dust and other mitigation measures. It is hard to understand why this same level of detail was not used to estimate the environmental impacts of criteria pollutants and HAPs during the demolition and construction phases of the project.

The agency recognizes the preliminary nature of the project design at this stage in the EIS process, but without a full evaluation of the air quality impacts from demolition and construction operations it is difficult for commenters and decision-makers to provide specific input to protect the public health, influence selection of the best alternative, and ensure compliance with state and federal Clean Air Acts. The agency has two general comments regarding the adequacy of the Draft EIS for compliance with environmental regulations and conformity regulations and a series of recommendations for the forthcoming "construction air pollution emission plan" within that context.

The agency reiterates its earlier stated position that compliance with state and federal conformity regulations does not constitute compliance with state and federal environmental regulations. In particular, demolition and construction period, diesel exhaust impacts, and mitigation must be addressed in greater detail in the EIS. Second, as stated in Appendix Q Air Quality Discipline Report, the Conformity determination will occur after selection of the Preferred Alternative, its inclusion in the Puget Sound Regional Council's Metropolitan Transportation Plan and Transportation Improvement Program and specific project level conformity analysis. That process should ensure compliance with state and federal conformity regulations. As noted, the Draft EIS does not provide sufficient information upon which to determine compliance with state and federal environmental and conformity regulations in particular because the year of peak emissions of both criteria and hazardous air pollutants have not been identified and construction period emissions and mitigation have not been adequately addressed. This is particularly important because construction activity emissions must be included in the conformity determination.

It is also important that the EIS adequately address construction period emissions and mitigation because the construction period could pose significant risks to air quality and public health. Prior to providing the agency's project and construction activity mitigation recommendations, a brief discussion of the probable health and environmental impacts associated with operating diesel powered engines is important.

Diesel exhaust is a complex mixture of thousands of chemicals. Over 40 of these are listed as by the U.S. Environmental Protection Agency (EPA) as hazardous air pollutants, known human carcinogens, probable human carcinogens, reproductive toxins or endocrine disruptors. In addition, USEPA, CalEPA, and the International Agency for Research on Cancer have all reviewed the health studies pertaining to DPM, and rated the complex mixture as a probable human carcinogen. In other words, DPM as a whole is likely to cause cancer in humans. No single chemical or suite of chemicals has been identified as the cancer-causing agent in diesel particulate matter.

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4 EPA. Health Assessment Document for Diesel Engine Exhaust. Office of Research and Development. EPA/600/8 90/057 F.
Your concerns about diesel particulate matter (DPM) are noted. The lead agencies are proposing mitigation to address this concern. For instance, appropriate emissions-control devices, such as diesel particulate filters, on large diesel-fueled equipment and the use of low or ultra-low sulfur fuels are both measures that could be required during construction. Mitigation measures are described in detail in the Final EIS Appendix M, Air Discipline Report and a Memorandum of Agreement with the PSCAA has been developed and will be implemented for this project. The Record of Decision for this project will discuss the mitigation to which the lead agencies are committed.
- All diesel equipment with a horse power rating of 60 hp and above that will remain on site or travel to and from the site for more than 30 days total during the entire construction period should be retrofitted with a diesel oxidation catalyst or more efficient pollution control device that is currently verified either by the EPA Voluntary Diesel Retrofit Program or the California Air Resources Board (CARB) verification process. Oxidation catalysts are sulfur tolerant and machinery equipped with them can be used off the project site and fueled with higher sulfur fuels elsewhere without damaging the catalysts, and;
- All diesel construction equipment not in active use and dump trucks that are idling while waiting to load or unload material for three minutes or more, should be turned off, and;
- Staging zones for trucks that are waiting to load or unload material at the work zone should be established in locations where diesel emissions will have the least impact on the public, and
- Construction equipment should be located away from pathways to sensitive receptors such as fresh air intakes to buildings, air conditioners, and operable windows, and;
- A compliance verification process should be developed and implemented to self-police each element of the plan.

Mitigation measures for other impacts discussed in the EIS also have air quality benefits and the agency looks forward to discussing their inclusion in the air pollution plan. The agency also anticipates recommending additional mitigation measures after additional information on construction period activities and equipment is provided.

In closing, the agency acknowledges that the conformity determination can be deferred until a preferred alternative has been selected and looks forward to reviewing it again at that time. Furthermore, the agency believes that the demolition and construction phases of the project must be conducted in a manner that limits public health risks and minimizes quality of life impacts for residents, visitors and waterfront business owners. The agency is prepared to assist WSDOT with the development of a construction air pollution emission control plan to this end.

If you have any questions concerning my comments please contact me or Tom Hudson of my staff at 206.684.4025 or email tomh@pahealthair.org.

Sincerely,

Dennis McLean
Executive Director

cc: Stu Clark, Ecology
    Wayne Grotheer, Port of Seattle
    Marina Cofer Wildsmith, ALAW
    Steve Nicholas, Seattle Office of Sustainability and Environment
The lead agencies appreciated receiving these comments. The Transportation Discipline Report, Appendix C, Chapter 5 Operational Effects, Mitigation, and Benefits explains construction effects including how transit service could be affected. As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies that should reduce the effects. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the City’s Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses.
contemplated to occur from 2005-2009. SMP agrees with the AWV DEIS Cumulative Impacts Chapter that states these activities should be coordinated with SMP to avoid or reduce impacts, and we look forward to working with your team.

- The FEIS should discuss the AWV Central Area utility relocations and the importance of coordinating with SMP to avoid impacts to downtown Green Line construction, and utility customers.

- The DEIS discusses the impacts of construction staging areas. SMP will likely be completing downtown Green Line construction in 2008 when AWV construction is expected to begin. The FEIS should discuss the benefits and impacts to the downtown of coordinating with the SMP to utilize, where feasible, former Green Line construction staging areas located in the vicinity of the AWV Project.

- The FEIS should discuss any impact on the Seattle Green Line column placements at S. Horton as a result of BNSF track realignments in the Seattle International Gateway yard and Whatcom rail track required by the AWV project.

The Seattle Monorail Project supports the proposed Flexible Transportation Package described in Chapter 10 of the DEIS. SMP looks forward to working with the AWV project to develop transit options for citizens traveling to and through downtown, the West Seattle and the Interbay/Ballard areas which are important feeders for the AWV corridor. The Green Line is projected to be operational in 2009, and because it is an elevated structure, riders will have the option of a completely congestion-free commute during the time the AWV has only one lane open for vehicles. We look forward to coordinating with all the agencies providing transit options within the city, including working on the interagency team.

We appreciate the opportunity to comment on the Draft Environmental Impact Statement and look forward to working closely with you as you complete the Final Environmental Impact Statement. If you have any questions, please contact Denna Cline at 206)587-1737.

Sincerely,

Joel Horn
Executive Director

JH:de
A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.
Since the publication of the Draft EIS in 2004, a separate project was completed to address the concerns in this comment. The second phase of SR 519 improvements included the Royal Brougham Way Bridge and the I-90/I-5 off-ramp to S. Atlantic Street. These improvements eliminated the remaining safety issues related to surface-level rail crossings on Royal Brougham Way, and provide safe and efficient waterfront and stadium access for drivers and freight haulers.

Numerous measures to reduce the construction impacts on traffic in the project corridor, and specifically in the stadium area, are described in Appendix C, Transportation Discipline Report, construction mitigation section.

Please note that SR 519 was a separate project with independent environmental analysis. The alternatives developed and evaluated for this project have explored a reasonable range of configurations in the south end of the project that meet the project's purpose and accommodate surrounding activities.
Phase 1 of the SR 519 Intermodal Access Project added a new grade separation at S. Atlantic Street to provide grade-separated access in the eastbound direction between First and Fourth Avenues S., I-90, and I-5. Phase 2 of the SR 519 Intermodal Access Project, completed in spring 2010, added a corresponding westbound connection. Construction has started on the S. Holgate to S. King Street Viaduct Replacement Project. This project is part of the Alaskan Way Viaduct and Seawall Replacement Program. The S. Holgate to S. King Street Viaduct Replacement Project will build a new section of SR 99 that will have three lanes in each direction south of S. Royal Brougham Way and new on- and off-ramps near the stadiums. A new S. Atlantic Street overcrossing will improve connections between the Port of Seattle and major freeways by allowing traffic to bypass passing trains.

The ramps associated with the interchange in the stadium area replace the Railroad Avenue ramps between SR 99 and First Avenue S. today. Therefore, the traffic that will use these ramps is already traveling through the intersections in question on First Avenue S. The reconfigured interchanges in the SR 99 corridor (west of First Avenue S.) should help redistribute traffic somewhat away from First Avenue S. that normally would continue north to the Railroad Avenue S. ramps. Please see the Final EIS Chapter 5 for description of the proposed improvements in the stadium area. Also please see Appendix C, Transportation Discipline report.

It is likely that police traffic enforcement will continue to be needed on game days well beyond completion of the project. Current staging of the baseball games and especially day games generate increased demand in the area with the evening peak hour commute. Transit service and demand management strategies will continue to be needed to help reduce auto traffic in the area, but they would not completely solve the traffic congestion problems.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Construction has started on the S. Holgate to S. King Street Viaduct Replacement Project. This project is part of the Alaskan Way Viaduct and Seawall Replacement Program. The S. Holgate to S. King Street Viaduct Replacement Project will build a new section of SR 99 that will have three lanes in each direction south of S. Royal Brougham Way and new on- and off-ramps near the stadiums. A new S. Atlantic Street overcrossing will improve connections between the Port of Seattle and major freeways by allowing traffic to bypass passing trains.

The Final EIS Appendix C, Transportation Discipline Report, describes the proposed pedestrian facilities near the stadiums and discusses event traffic. Chapter 6 contains details regarding effects on pedestrian facilities and event traffic during construction.
Pedestrian access would be maintained at all times during construction, although at times it may be necessary to reroute pedestrians using temporary facilities/detours designed to minimize user inconvenience. The Transportation Discipline Report contains proposed mitigation measures to reduce construction effects, including in the stadium area. These mitigation measures may be refined as construction plans evolve.

L-011-006
Your agreement with the comments submitted by the Seattle Mariners is acknowledged. The responses to the Seattle Mariners comment letter can be found in item B-008.
This Final EIS includes additional analysis of refined designs for the southern end of the project and more detailed discussion on construction impacts and mitigation measures.

Construction has started on the S. Holgate to S. King Street Viaduct Replacement Project. This project is part of the Alaskan Way Viaduct and Seawall Replacement Program. The S. Holgate to S. King Street Viaduct Replacement Project will build a new section of SR 99 that will have three lanes in each direction south of S. Royal Brougham Way and new on- and off-ramps near the stadiums. A new S. Atlantic Street overcrossing will improve connections between the Port of Seattle and major freeways by allowing traffic to bypass passing trains. As requested by this comment several face-to-face meetings were held with the PFD and Seattle Mariners as project designs and construction plans proceeded. Information provided during these meetings was helpful and incorporated into the project to the extent practical.
L-012-003
Thank you. Your organization's input has been a valuable part of the project development process.

L-012-004
As you are aware, the project and proposed build alternatives have changed substantially since these comments were submitted in 2006. Please see the Final EIS for updated information on the proposed alternative, their effects, and proposed mitigation.
Mitigation commitments, during Project construction and thereafter

Thank you again for the opportunity to comment. We look forward to working cooperatively with WSDOT and the City of Seattle as you study further the impacts, alternatives and mitigation measures described in this letter. If you would like to arrange a meeting with the PFD, please contact Kevin Callan our Executive Director. Kevin can be reached at (206) 664-3076 or (206) 767-7800.

Sincerely,

Joe S. Guullan, PFD Board Chair

cc: PFD Board Members
    Kevin Callan, Executive Director
    Clyde MacIver, Seattle Mariners
Please see L-005 for response to your June 1, 2004 Draft EIS comment letter. Thank you for your careful review of the Draft and Supplemental Draft EISs.

The Final EIS has been prepared in close coordination with King County, and we greatly appreciate your assistance.

The Washington Department of Transportation, the City of Seattle, and King County Metro have developed a mitigation program to address construction impacts. This program includes expanded public transit service along the affected corridor. The project includes new facilities that would enhance speed and reliability of transit services in the project corridor. These enhancements include a northbound shoulder bus lane on SR 99 between Holgate Street and north of Dearborn Street in the SODO area. Also, a bus-only lane would be provided in the north area of the project corridor in the vicinity of Aurora Avenue and Denny Way.

One of the main benefits of the Bored Tunnel Alternative is the ability to maintain operations on SR 99 throughout the construction period. Current construction plans call for a relatively short (several-week) closure during the end of construction to connect the tunnel with the remainder of SR 99. A detailed discussion of the construction effects on transportation facilities and services is provided in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. This discussion includes an assessment of the effects of concurrent construction projects on transportation facilities and services. Also included in Chapter 6 is a listing of the planned construction mitigation activities.
As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies to keep traffic moving during construction. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the city’s Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses. The agreement signed by the Governor, County Executive, and Mayor in January 2009 described a program of independent yet complementary projects for replacing the Alaskan Way Viaduct and providing a strategy for overall mobility in Seattle. The State is responsible for replacing the viaduct, the City for the seawall and central waterfront, and the County accepted responsibility for additional RapidRide and express bus service, with some identified as construction mitigation. These future transit service improvements have benefits independent of replacing the Alaskan Way Viaduct. WSDOT recognizes the funding anticipated in the agreement has not been realized, and that the recent economic downturn has reduced other funding sources King County currently relies on for providing transit service throughout King County.

Currently, WSDOT is providing funding for King County on the S. Holgate Street to S. King Street Viaduct Replacement Project to provide additional transit service hours to help mitigate the effects of construction. This program is ongoing and regularly monitored to evaluate its effectiveness. For the Alaskan Way Viaduct Replacement Project, WSDOT will continue to evaluate the need for increased bus service in the West Seattle, Ballard, Uptown, and Aurora Avenue corridors during the initial portions of the construction period, as well as a bus travel time monitoring system.

WSDOT will prepare a traffic management plan, which will contain...
localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

L-013-005
The Final EIS provides travel time tables that show the anticipated effect of construction activities on transit. The travel times presented in the Final EIS are for the stage of construction that is expected to have the most extensive travel delays. The results indicated relatively small changes in travel times between the baseline and construction scenarios.

L-013-006
As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies to keep traffic moving during construction. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the City’s Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses.

The agreement signed by the Governor, County Executive, and Mayor in January 2009 described a program of independent yet complementary projects for replacing the Alaskan Way Viaduct and providing a strategy for overall mobility in Seattle. The State is responsible for replacing the viaduct, the City for the seawall and central waterfront, and the County accepted responsibility for additional RapidRide and express bus service, with some identified as construction mitigation. These future transit service improvements have benefits independent of replacing the Alaskan Way Viaduct. WSDOT recognizes the funding anticipated in the agreement has not been realized, and that the recent economic
downturn has reduced other funding sources King County currently relies on for providing transit service throughout King County. Currently WSDOT is providing funding for King County on the S. Holgate Street to S. King Street Viaduct Replacement Project to provide additional transit service hours to help mitigate the effects of construction. This program is ongoing and regularly monitored to evaluate its effectiveness. For the Alaskan Way Viaduct Replacement Project, WSDOT will continue to evaluate the need for increased bus service in the West Seattle, Ballard, Uptown, and Aurora Avenue corridors during the initial portions of the construction period, as well as a bus travel time monitoring system.

WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

L-013-007
The lead agencies note and acknowledge King County's preference for the shorter construction period associated with the project's construction plan analyzed in the 2006 Supplemental Draft EIS. Please see the Final EIS for updated construction sequencing.

L-013-008
Specific construction transportation planning measures, including coordination with other projects in the region, will continue to be developed as the project construction timeline evolves. The South Park Bridge is currently closed. However, funding has been obtained to replace the existing bridge. The County plans to go to bid in early 2011 with an anticipated completion in late 2013.

A traveler information system is proposed that would help direct drivers...
to alternate routes during project construction. Additional information about the South Park Bridge could be incorporated into the system.

L-013-009
The Final EIS provides travel time tables that show the anticipated effect of construction activities on transit corridors. The travel times presented in the Final EIS are for the stage of construction that is expected to have the most extensive delays. The results indicated small changes in travel times between the baseline and construction conditions. For transit travel between West Seattle and downtown Seattle, buses will have travel time benefits with the provision of a northbound bus-only shoulder lane on SR 99 that will be available when project construction starts.

L-013-010
The Washington Department of Transportation, the City of Seattle, and King County Metro have developed a mitigation program to address construction impacts. The program elements include ITS development along major streets, including First Avenue S. More localized mitigation measures will be developed as construction details are refined. Also, a construction traffic management plan will be prepared to ensure that construction effects on local streets, property owners, and businesses are minimized.

L-013-011
Construction of the Spokane Street widening is underway and is anticipated to be complete by the time construction starts for the preferred Bored Tunnel Alternative. The Spokane Street Viaduct project will include a Fourth Avenue off-ramp for traffic from West Seattle. The Lander Street project is currently on hold. However, the Alaskan Way Viaduct Replacement Project includes the provision of a northbound bus-only shoulder lane on SR 99 between S. Holgate Street and past S. Royal Brougham Way.
WSDOT, the City of Seattle, and King County Metro have developed a mitigation program to address construction effects. This program includes expanded public transit service along the affected corridor. More localized mitigation measures will be developed as construction details are refined. Also, a construction traffic management plan will be prepared to ensure that construction effects on local streets, property owners, and businesses are minimized.

WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

In the north portal area, improved access to and from SR 99 near the north portal and added network redundancy across SR 99 would result in reduced congestion before and after Seattle Center events. These roadway changes would likely improve circulation and reduce overall congestion levels at critical intersections near the Seattle Center during large events by providing more direct access to regional facilities such as SR 99 and I-5. A detailed traffic analysis has been conducted for all alternatives and is described in this Final EIS. Please refer to Appendix C, Transportation Discipline Report, for additional detailed analysis of impacts to transportation elements, including transit.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city's parking resources. SDOT's studies identified a number
of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

L-013-014
Impacts to traffic during major construction activities for the each build alternative have been analyzed as part of the Transportation Discipline Report (TDR) for the Final EIS. Traffic management approaches (detours), mitigation measures, and expected performance associated with major construction stages are discussed in the TDR (Appendix C of the Final EIS).
One of the main benefits of the Bored Tunnel Alternative is the ability to maintain operations on SR 99 throughout the construction period. Current construction plans call for a relatively short (several-week) closure during the end of construction to connect the tunnel with the remainder of SR 99. A discussion of the construction effects on transportation facilities and services is provided in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. Also included in Chapter 6 is a listing of the planned construction mitigation activities. Included in this list are advance traveler information systems to warn vehicles of construction activities and provide information regarding alternative routes.

As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies to keep traffic moving during construction. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the city’s Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses. WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

The transportation planning process for construction encourages construction workers to use alternatives to the single-occupant vehicle to access the job site in order to minimize traffic congestion during peak travel periods. The Transportation Discipline Report (Appendix C of the
Final EIS) includes strategies targeted specifically to construction workers. Construction transportation management strategies will continue to evolve as the project construction plans become more definite.
L-014-001
The letter to Secretary MacDonald and Mayor Nickels is included at the end of this correspondence.

L-014-002
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Tunnel Alternative in 2006. We also appreciate receiving your comments on the 2010 Supplemental Draft EIS and support of the preferred Bored Tunnel Alternative, which is item L-001 in Appendix S. The lead agencies recognize and acknowledge that the existing capacity of the corridor must be sufficient. Chapter 3, Alternatives Description, of the Final EIS discusses the current configuration of the proposed build alternatives. Chapters 5 (Permanent Effects) and 6 (Construction Effects) describe the right-of-way effects for each alternative.
L-014-003

The City of Seattle, through its Central Waterfront Project, will develop final designs for Alaskan Way. At this time, it is anticipated that there will not be any changes to the roadway classification or use of a future surface Alaskan Way. Over-legal trucks and trucks hauling flammable materials are expected to continue using this route once construction is complete.

L-014-004

Construction of the Olympic Sculpture Park in 2007 led to the indefinite suspension of the George Benson Line Waterfront Streetcar service because it displaced the vehicle storage and maintenance facility. King County Metro currently provides replacement service with fare-free bus service on the Route 99 Waterfront Streetcar Line. The routing and stop locations for this line do not exactly duplicate those of the waterfront streetcar; however, Route 99 serves the same neighborhoods—the waterfront, Pioneer Square, and Chinatown/International District. With the Bored Tunnel Alternative the final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle. Both the Cut-and-Cover Tunnel and the Elevated Structure Alternatives include the streetcar along Alaskan Way.

We prefer the stacked tunnel for the tunnel alternative due to its somewhat lesser right-of-way impacts on the waterfront.

b. Capacity and functionality of Alaskan Way surface

Freight mobility

Any design configuration for Alaskan Way surface must ensure that the route is safe and reliable for through-traffic, including over-legal trucks and trucks carrying flammable materials. Alaskan Way surface is, apart from Interstate 5, the only "over-legal" north-south freight route through downtown (transporting by special permit). All flammable materials will be prohibited from a Viaduct replacement facility, be it a tunnel or an aerial structure, at least part of the day. Alaskan Way Surface will then be essential for fueling trucks traveling to Fisherman's Terminal and other maritime uses in the BIMMIC/Ballard area from Harbor Island fueling facilities.

In-traffic streetcar reliability and impact on cruise at P-66

The tunnel design for Alaskan Way surface places the streetcar, together with vehicle traffic, in the center lanes. We urge further analysis of its trip reliability and impact on other traffic, especially freight, and cruise-related trips. Alaskan Way, more so than other streets, is periodically subject to severe congestion due to train crossings (closing Broad, Vine, Clay and Wall Streets); stadium traffic pre- and post-events; and ferry traffic unloading from Colman Dock. With the current design, the streetcar will be subject to the same stop-and-go traffic as other vehicles sharing its lanes, which will impact the headways it can achieve and maintain.

To date it does not appear that these congestion impacts have been analyzed in sufficient detail.

We are particularly concerned about the design of Alaskan Way surface north of the aquarium, where congestion occurs today. Rail traffic is forecast to double from 2001 to 2020, blocking traffic twice as long (North Waterfront Access, 2001). Freight train blockages are usually 5-10 minutes per train and will become longer as intermodal trains increase in length. Operational modeling that evaluates the movement of all modes in the corridor, as well as events like ferry (un)loading, is needed.

A comparison analysis of the streetcar modeled (1) as proposed, contrasted with (2) being in dedicated right-of-way all along the waterfront, or (3) consolidating to one track near the aquarium and continuing north with a separate right-of-way, single-track to the northern terminus of the streetcar line, would test this issue.
Construction of the Olympic Sculpture Park in 2007 led to the indefinite suspension of the George Benson Line Waterfront Streetcar service, because it displaced the vehicle storage and maintenance facility. With the Bored Tunnel Alternative (preferred alternative) the final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle.

The configuration Whatcom Railyard and the viaduct replacement in this location was addressed in the S. Holgate Street to S. King Street Environmental Assessment and is no longer part of the Alaskan Way Viaduct Replacement Project.

The project has evolved since 2006. Please refer to the Final EIS for updated information. The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate independent project associated with the Bored Tunnel Alternative. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would provide ramps at Elliott and Western Avenues, similar to the existing viaduct structure. Both configurations are designed to accommodate trucks and meet current design standards.

The Port’s concern regarding grade separation for the BNSF mainline at Alaskan Way surface street in the north waterfront is acknowledged. These improvements are not currently included as part of the design for the Alaskan Way Viaduct Replacement Project. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.
The project acknowledges the Port's concerns regarding mobility for the freight corridor in general, and specifically between Terminal 91 and I-5 during the construction period. Freight issues and challenges are addressed in the Final EIS and Appendix C, Transportation Discipline Report. The Final EIS and Appendix C describe the current configuration in the north project area for all alternatives, which includes reconnecting the street grid and changing Mercer Street to a two-way street. The lead agencies are committed to working with the Port to minimize impacts throughout the duration of construction.

FHWA, WSDOT, and the City of Seattle appreciate the Port of Seattle's cooperation to discuss the access concerns for the Port and its tenants. Access to businesses (including Port and tenant facilities) will be maintained throughout construction. If changes to access are needed during construction, the project team will work with the businesses affected to mitigate the impacts to the extent practicable.

The issue of accessibility during construction for businesses and residences will continue to be addressed in the on-going construction impacts evaluation and through ongoing work of the project staff, in coordination with stakeholders from businesses, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The lead agencies for the project anticipate continued cooperation with the Port of Seattle and other prominent property owners in the project area. The potential relocation of the Whatcom Railyard to the east of its current location was previously identified as a design option. Under the current design, this option is no longer proposed and property from Terminal 30 would not need to be acquired.
Construction has started on the S. Holgate Street to S. King Street Viaduct Replacement Project. This project is part of the Alaskan Way Viaduct and Seawall Replacement Program. The S. Holgate Street to S. King Street Viaduct Replacement Project will build a new section of SR 99 that will have three lanes in each direction south of S. Royal Brougham Way and new on- and off-ramps near the stadiums. A new S. Atlantic Street overcrossing will improve connections between the Port of Seattle and major freeways by allowing traffic to bypass passing trains.

L-014-012

None of the build alternatives would require that Terminal 46 property be acquired. Construction activities proposed for Terminal 46 with the Bored Tunnel Alternative would be related to materials and spoils transshipment would include erecting and operating a conveyance system for transferring material/spoils onto barges. The conveyors and hoppers would be erected to avoid roadway closures and obstructions to ferry terminal and Terminal 46 access. The design and construction of the conveyance system will be determined by the Design-Builder.

Appendix B, Alternatives Description and Construction Methods Discipline Report of the Final EIS provides more detail on the construction process.

L-014-013

The lead agencies appreciate the Port of Seattle's cooperation in addressing the gate operation, freight access, parking, utility, emergency service issues, and developing mitigation measures. Construction has started on the S. Holgate to S. King Street Viaduct Replacement Project. This project is part of the Alaskan Way Viaduct and Seawall Replacement Program. The S. Holgate to S. King Street Viaduct Replacement Project will build a new section of SR 99 that will have three lanes in each direction south of S. Royal Brougham Way and new
on- and off-ramps near the stadiums. A new S. Atlantic Street overcrossing will improve connections between the Port of Seattle and major freeways by allowing traffic to bypass passing trains.

**L-014-014**

WSDOT and the Port of Seattle completed the purchase of Pier 48 in August 2008. As identified in the 2006 Supplemental Draft EIS, both the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative would displace the Alaska Square Park. As identified in the 2010 Supplemental Draft EIS, WSDOT intends to use the uplands for contractor parking as part of the construction-related activities for the Bored Tunnel Alternative. These activities would not affect Alaska Square Park.

**L-014-015**

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

**L-014-016**

Thank you for the information provided.

**L-014-017**

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable.
two Government Institutions in the north waterfront, as both located at Pier 69. Similarly, Exhibit 6-4, p. 60 should reflect POS Cruise Ship terminal at Pier 66 and Port Headquarters, at Pier 69. The passenger vessel facilities (leased to Clipper Navigation) should be included as well.

L-014-018

- The SDEIS indicates that, while the seawall has been improved when Bell Harbor was built, soil improvements will be required in front of P-66. (Appendix B, p. 20.) We continue to be concerned about the potential impact of soil strengthening work along Alaskan Way on the stability of our bulkhead and the buildings owned by the Port. Beyond P-66, we are also wondering whether jet-grouting will allow the concrete to sufficiently penetrate the forest of timber piles supporting the relieving platform to create uniformly firm soil-concrete mix. (The SDEIS drawings showing the grouting process do not contain any wood pilings.) The project team should consult with our engineers regarding potential impacts to P-66 as part of the FEIS process.

L-014-019

f. North Waterfront: Lenora Street Pedestrian Bridge

We appreciate the fact that the SDEIS acknowledges that the bridge would be displaced during construction, and that it states that it will be replaced with a similar structure once construction is complete. As previously discussed, this facility is owned and maintained by the Port. It is subject to a pedestrian easement that was required as part of a street vacation agreement with the City of Seattle. We expect replacement will included the public seating and waterfront viewing area at the top of the elevator/stairway tower as designed.

L-014-020

g. Pier 69

Pier 69 is serving as the Port’s headquarters, it is also home to Clipper Navigation, operating a passenger vessel terminal, and Fugro Seafloor Surveys, a water-dependent tenant. Analysis of the impact of the design for Alaskan Way surface, as outlined under A.1.8, will show whether the project provides appropriate access.

L-014-021

6. Core versus full project

In addition to introducing changes to design and construction plans, the SDEIS also proposes using available and projected funds to construct a “core project.” Project components not contained in that core would be built at a later, as yet unspecified time. However, the document does not discuss the impacts of this proposed approach. The FEIS should describe extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

L-014-018

Appendix I, Social Resources Technical Memorandum, of the 2004 Draft EIS has been updated considerably. Please see Appendix H, Social Discipline Report, of the Final EIS for the current discussion of public access, including trails, pedestrian bridges, and shoreline access.

The report text and exhibits have been revised to correctly identify that the Port of Seattle leases property to Clipper Navigation, Inc., for operation of their passenger vessel facilities located at Pier 69.

L-014-019

Soil improvements in the vicinity of Pier 66 would improve soil stability and would not compromise the structural integrity of the existing Port buildings and bulkhead.

Your concerns regarding efficiency of jet-grout treatment in the relieving platform piles are acknowledged. With the preferred alternative, the Bored Tunnel Alternative, jet grouting would not be required because the alignment of the bored tunnel curves away from the seawall beginning around Yesler Way up to First Avenue. However, jet grouting could be used if the Elevated Structure Alternative or Cut-and-Cover Tunnel Alternative is selected. Please see Appendix P, Earth Discipline Report, for greater detail on this soil improvement method.
the rationale for selecting project components for the core project (e.g. for including Steinbrueck Park walkway rather than the north seawall), and outline the traffic and economic impacts of focusing on the core project only.

We are particularly concerned that the northern portion of the seawall is not included in the core project. Yet its failure, and related failures of the main rail line and Alaskan Way surface, would have severe impacts on international trade, and the economy of the region. The FEIS should address the impacts of a potential failure of the north seawall. We cannot lose sight of this critical infrastructure. We look to the City for a funding and implementation plan that ensures it will be replaced within a reasonable timeframe.

It will also be critical to consider the timing of providing the Aurora improvements north of Battery Street Tunnel since construction will require the full or partial closure of Aurora north of the Battery Street Tunnel. Construction of this project component must be coordinated and timed to minimize disruption to both the SR-99 and the east-west corridor.

7. Coordination with proposed land use changes

The SDEIS summarizes concurrent land use and comprehensive planning efforts along the waterfront and in the South Downtown area, the City’s Waterfront Concept Plan and the Livable SODO plan (Appendix G, p. 15-17). It discusses the continued need for industrial land within the City’s boundaries, 77% of which are located adjacent to the south end of the project, and points to future City policies “for protecting industrial land for industrial uses”. Yet, the document then goes on to indicate that, by providing improved connections between Pioneer Square and the waterfront, it may reinforce zoning changes being considered under the Livable SODO planning effort.

The Port has consistently voiced concerns with regard to plans to change zoning designations and densities in the stadium overlay area. We continue to oppose any changes in zoning or increased densities that have the potential to negatively impact access to and the viability of our container terminals, in particular T-46 in this case. The project should not be used as a stepping stone for facilitating such change with deleterious impacts to industrial operations.

L-014-020

Where elements such as the public seating and viewing area associated with the Lenora Street bridge are disturbed by the project, the lead agencies are committed to restoring those elements to a condition that is equivalent to the original.

L-014-021

The issue of accessibility during construction for businesses and employees shall be more directly addressed in the ongoing construction impacts evaluation and through ongoing work of the project staff with the Waterfront Piers, Pioneer Square, and Downtown. The project will maintain access to all waterfront businesses during all phases of project construction, regardless of alternative.

L-014-022

There is no longer a core versus full project. After the 2006 Supplemental Draft EIS was published, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2006, please refer to this Final EIS for the current information.

The Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, describe the current alternatives. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront. With the Bored Tunnel Alternative, the seawall would be replaced by the City-led Elliott Bay Seawall Project. If the Cut-and-Cover Tunnel Alternative or
Elevated Structure Alternative is selected, the seawall would be replaced as part of the project.

L-014-023
The project is not expected to facilitate a substantial amount of new development. The preferred Bored Tunnel Alternative would create the potential for some new development opportunities including sites in the south project area. Through its planning efforts in the South Downtown area, the City is studying future land uses there and will consider the appropriateness of zoning designations or density levels that differ from existing uses. The City Planning Commission has also recommended that City staff develop a strategy to address the protection of industrial land and uses throughout Seattle, including the south downtown area. It is expected that policies adopted as a result of these efforts will have a greater influence in guiding future development proposals in the project area than the build alternatives.

L-014-024
A Memorandum of Agreement has been developed between WSDOT and the Puget Sound Clean Air Agency to help eliminate, confine, or reduce fugitive dust during the construction period. State and federal environmental regulations, as well as the air conformity regulations, will be followed. Please see the Final EIS Appendix M, Air Quality Discipline Report, for the current methods used to assess air quality effects for this project and for the effects discussion. Mitigation measures will be in place during the demolition and construction of the project as discussed in Chapter 8 of the Final EIS, and in the Air Discipline Report.

Mobile Source Air Toxic (MSAT) emissions have been analyzed in the Final EIS. This analysis follows FHWA guidelines. FHWA has developed this approach because currently available technical tools do not allow a prediction of the project-specific health effects (such as health risks) that would result from the potential emission changes associated with a
L-014-025

The exhaust from the ventilation stacks and tunnel portals were modeled in the Final EIS, and, based on this modeling, no exceedance of the National Ambient Air Quality Standards (NAAQS) would occur. In addition, the air that will be released through the tunnel's portals and ventilation stacks will primarily be air--with vehicular contaminants being only a very small fraction of the exhausted air. As such, any treatment system would have to process huge amounts of air to control very small (and diluted) amounts of pollutants. This would require very large and expensive emission control equipment (e.g., scrubbers, electrostatic precipitators, etc.) as well as the generation of substantial amounts of electricity (that would in turn generate additional air pollutants), which, according to the results of the air quality analyses, are not needed to meet the applicable air quality standards at nearby sensitive land uses.
L-014-027
None of the propose build alternatives evaluated in the Final EIS move the tail track closer to the administrative building on T-46.

L-014-028
Your concerns regarding the Lenora Street Pedestrian Bridge are addressed above in the response to L-014-020.

L-014-029
No in-water work is proposed as part of the preferred Bored Tunnel Alternative and no aquatic habitat compensations actions would be necessary. If the Cut-and-Cover Tunnel Alternative or Elevated Structure Alternative is selected, appropriate mitigation for habitat loss or function would be established. Specific reference to the listed Port properties was eliminated for the Final EIS as potential mitigation sites. Coordination will continued between WSDOT, the Port, and other entities for developing appropriate mitigation for improving the marine habitat of Elliott Bay.

The City of Seattle is leading redevelopment efforts and associated environmental reviews processes for the central waterfront, which would take place under NEPA and/or SEPA as appropriate. In addition, the project compliments a number of other projects with independent utility that would provide other improvements such as the seawall replacement, transit enhancements, and a new Alaskan Way Promenade and public space. These individual projects include the moving forward projects identified in 2007, as well as improvements recommended as part of the Partnership Process. Please refer to Chapter 2, Alternatives Development, of the Final EIS for a description of these projects.

L-014-030
WSDOT will continue to coordinate with the Port to maintain essential conditions for freight mobility and minimizing construction effects. Overall
construction effects of each of the alternatives are described in Final EIS Appendix C, Transportation Discipline Report. For environmental documentation purposes, the worst stage of construction for traffic was analyzed quantitatively while the overall construction activities were described qualitatively. Demolition of the existing Alaskan Way Viaduct would occur as part of the viaduct replacement project. As part of that project, standard maintenance of traffic during construction plans will be developed, communicated with the general public, and implemented during project construction. As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies to keep traffic moving during construction. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the City’s Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses. WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

Because operational effects of the built alternative would be substantially better than the Viaduct Closed (No Build Alternative), long-term transportation mitigation measures are not anticipated. However, a number of mitigation measures in place during construction could have benefits over the longer term. Refer to Chapter 8 Mitigation in the Final EIS for details.

L-014-031
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at
least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

L-014-032
The information provided in the 2006 Supplemental Draft EIS describes construction in sufficient detail to convey the impacts to distinct portions of the project area and to support selecting which construction approach should be used. The Final EIS provides the current construction information. The lead agencies have been coordinating with the Port of Seattle as a major regional stakeholder since the project's beginning, and would be glad to meet with Port staff to review construction planning and potential construction impacts on Port properties or functions, as the project moves toward final design.

L-014-033
The types of impacts identified in the comment are secondary economic impacts. For the purposes of this EIS, the degree of accuracy regarding the secondary impacts are placed at the business-district level. Because of the diversity of business types along the entire 2-mile corridor, a business-by-business analysis is not feasible and beyond the scope of
this EIS. The Final EIS identifies those business districts that clearly have identifiable risk factors that will be directly affected by the project, such as loss of parking for Pioneer Square. The Final EIS also includes mitigation measures that will be tailored to specific high-risk business districts, including the Central Waterfront.

The economic analysis, as presented in the Final EIS, accounts for those impacts and benefits which are under the direct control of the project. Indirect and secondary impacts and benefits are identified when they can be reasonably tied to a general project activity. To go beyond this would be speculative and any conclusions that would be drawn would be subject to forces not reasonably related this project.

Port of Seattle operations are not expected to be obstructed; however, they will experience some freight mobility congestion. The cost of congestion for freight mobility is presented in the Final EIS. The regional cost of congestion for passenger cars is also discussed in the Final EIS. Mitigation measures are included in Chapter 8 of the Final EIS.

The lead agencies recognize the critical importance of the entire SR 99 facility, including the Elliott Avenue and Western Avenue ramps. The 2006 Supplemental Draft EIS discusses the trade-off between maintaining partial traffic capacity on the facility during construction and the savings in cost and time of closing it to traffic while construction is underway. Construction under traffic is also inherently less safe than closure, both for the construction workers and for the traveling public. Also, some designs lend themselves to construction under traffic better than others. See the Final EIS, Chapters 3 and 6, for the current description of the construction plan for each proposed build alternative.

The Broad Street Detour described in the Final EIS is only for the
Elevated Structure Alternative. The detour would construct a temporary trestle structure from approximately Alaskan Way and Vine Street to the intersection of Broad Street and Western Avenue. The Broad Street Detour would be in place for approximately 27 months while the improvements to the Battery Street Tunnel are completed. An updated description of the alternatives and of construction-related transportation effects is provided in the Final EIS and Appendix C, Transportation Discipline Report.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

We agree on the need for continued close coordination and look forward to the Port's continued participation. Chapter 7 of the Final EIS discusses the potential cumulative effects of other transportation projects that may overlap with the Alaskan Way Viaduct Replacement Project.

Overall construction effects of each of the alternatives are described in Final EIS Appendix C, Transportation Discipline Report, Chapter 6. For environmental documentation purposes, the worst stage of construction was analyzed quantitatively while the overall construction activities were described qualitatively. As part of that project, standard maintenance of
traffic during construction plans will be developed, communicated with the general public, and implemented during project construction. Minimal effects on rail operations are foreseen. The S. Holgate Street to S. King Street Viaduct Replacement Project that is currently under construction will separate street and train traffic. A primary objective of this project is to minimize effects on freight and passenger rail operations. If closures of the rail line are necessary, they would be temporary.

The Elliott/Western Connector is conceptual at this stage and will be the subject of a separate environmental review process. The new roadway connecting Alaskan Way to Elliott and Western Avenues (in the area between Pike and Battery Streets) would be four lanes wide and would provide a grade-separated crossing of the BNSF mainline railroad tracks. The Elliott/Western Connector would provide a connection from the Alaskan Way surface street to the Elliott/Western corridor that provides access to and from BINMIC and neighborhoods north of downtown Seattle (including Ballard and Magnolia).

L-014-039
As promised in the 2006 Supplemental Draft EIS, construction mitigation plans have been developed in cooperation with the Port of Seattle and other stakeholders in the project area. These measures are included in the Final EIS. The comments provided in this letter and by the Port during the planning process have been helpful and incorporated to the extent practical.

L-014-040
Information on construction staging sites has developed and is presented in Chapter 3 of the Final EIS. The project acknowledges the importance of maintaining access to the Port of Seattle terminals (particularly Terminals 25, 30 and 46). It is a construction planning assumption that the project will maintain access to Port facilities during
Impacts to terminal access related to construction staging were evaluated as part of the transportation analysis in the Final EIS Appendix C, Transportation Discipline Report, which included an evaluation of circulation at and around the various Port of Seattle terminals. The project team will continue to work with the Port of Seattle as more detail on construction staging and phasing becomes available.

L-014-041

As design and construction sequencing proceeds, the lead agencies will continue to work closely with the Port of Seattle to identify necessary staging areas, negotiate any needed construction easements, and minimize impacts to Port facilities. At this time, the following Port properties are proposed for staging areas: Terminal 106, Terminal 25, Terminal 46 and Pier 46. Please see the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report for a description of what activities are proposed for these properties.

L-014-042

The project team will work with the Port of Seattle to ensure that access to businesses and Port activities is maintained throughout construction. If changes to access are needed during construction, the project team will work with the Port to mitigate impacts to the extent practicable. WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

L-014-043

Near the Horton Street maintenance facility, the separate S. Holgate Street to S. King Street Viaduct Replacement Project is currently under construction. Coordination between WSDOT and the Port of Seattle is ongoing with regard to this project. With respect to the current Alaskan Way project construction.
now docking at Terminal 30. Access for provisioning and trucks and busses from the airport are critical.

There are generally two ships in port at the same time. Currently, there are two weekend-day and one week-day sailings. We expect the number of week-day sailings to increase by one or two weekends during the construction timeframe. Depending on the size of the ships in port, two cruise ships calling at T-91 would generate 150-150 truck, 350-500 bus, and 4,750-6,000 car, taxi, van or limousine trips, totaling between 5,200 and 6,700 trips over the course of a day. The majority of passenger trips will occur between T-91 and the airport.

L-014-049

e. Utilities and public services

The SDEIS describes utility relocations in a generic fashion. It does point out that the south end will require a large number of temporary and permanent relocations, especially with a tunnel alignment. Please work with our engineers, maintenance staff, and terminal operators, as well as the railroad, to keep service disruptions to our terminals and the rail yards to a minimum. Disruptions, to the extent they are unavoidable, should be timed to minimize the impact on operations. Issues include power and gas shut-downs—recent power shut-downs on the terminal were limited to four hours or less and took place on days when there was little or no cargo activity. Also of concern is the major stormwater and sewer outfall at King St.

For the north waterfront, the SDEIS indicates that there are no utility relocations required for an elevated structure. However, relocations will likely be necessary during seawall replacement and soil stabilization efforts. The EIS should address these issues. Again, any service disruptions should be minimized and coordinated with our maintenance staff and our tenants.

We are also concerned about emergency access and the availability of water for fire fighting purposes. The SDEIS points to potential temporary restrictions for emergency access and the fact that water may not be available during relocation of fire hydrants. These services must be available at all times.

Due to the large number of utilities involved, utility relocation will be managed by many different utilities, and carried out by an even larger number of contractors. We support the concept of a consolidated utility relocation plan, which provides one point of contact for any utility-related work.

Viaduct Replacement Project addressed in this Final EIS, a detailed discussion of the construction effects on transportation facilities and services is provided in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. Also included in Chapter 6 is a listing of the planned construction mitigation activities which should help address effects associated with the planned construction activities north of King Street.

L-014-044

Construction staging, is discussed in the Final EIS, Chapter 6 Construction Effects. More detail on the proposed staging areas can be found in Appendix G, Land Use Discipline Report, Chapter 6. WSDOT will continue to discuss the construction plans and staging areas near the south portal with the Port to minimize impacts. The project team appreciates the continued coordination with the Port.

L-014-045

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The preferred alternative for the replacement of the Alaskan Way Viaduct is now the Bored Tunnel Alternative. One of the major benefits of this alternative is the ability to maintain operations on the existing SR 99 facility while the tunnel is being constructed. The Bored Tunnel Alternative would not construct the Broad Street Detour. The Broad
The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The Elliott/Western Connector is conceptual at this stage and will be the subject of a separate environmental review process. However the new roadway connecting Alaskan Way to Elliott and Western Avenues (in the area between Pike and Battery Streets) would be four lanes wide and would provide a grade-separated crossing of the BNSF mainline railroad tracks.
The Elliott/Western Connector would provide a connection from the Alaskan Way surface street to the Elliott/Western corridor that provides access to and from BINMIC and neighborhoods north of downtown Seattle (including Ballard, Magnolia, and Pier 91). The project team will continue their coordination activities with business and residential stakeholders, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups to minimize construction effects. WSDOT will prepare a traffic management plan, which will contain localized traffic mitigation measures. These measures will be developed as construction details are refined. Please see the Final EIS, Appendix C, Chapter 6 of the Transportation Discipline Report as well as the Final EIS, Chapter 8 Mitigation.

L-014-049

Final EIS Appendix K, Public Service and Utilities Discipline Report, discusses impacts to public services and utilities in greater technical detail. Utility relocations will occur after extensive coordination between the project design team and utility providers. Utility disruptions will be minimized where practicable. Timing and scheduling of utility disruptions will be coordinated with the utility providers as design proceeds in future design phases and during the construction phase. The lead agencies will also coordinate with public service providers to maintain emergency response times or provide satisfactory mitigation. See Appendix K for more information about proposed mitigation measures to ensure that disruptions to utilities and public services are minimized.

L-014-050

Under the preferred alternative, the Bored Tunnel Alternative, seawall replacement would occur as an independent project led by the City of Seattle. The project would not touch the seawall or relieving platform if the preferred alternative is selected.
If one of the other build alternatives is selected, replacement of the seawall would occur as part of the alternative. In that event, the permanent work will be done on the inside of the existing seawall. All existing elements that will be affected by the temporary work west of the seawall will be replaced to its prior condition as the project is completed. Any riprap or fender piles that will be temporarily removed will be returned upon completion of the seawall construction work.

A test section of the construction of the seawall would be planned at the final design stage of the Cut-and-Coover and Elevated Structure Alternatives. The test section will confirm the applicability of the construction method(s). Issues such as the stability of the existing wall during the excavation of the relieving platform and the flow of any jet grouting around the existing obstructions will be confirmed at that time. The design team will coordinate with the Port staff during the planning and design stages of the test section.

L-014-051

WSDOT, King County, and the City of Seattle are providing transit enhancements and other improvements to keep people and goods moving during construction of the Moving Forward projects. These improvements include the following strategies:

- Add variable speed signs and travel time signs on I-5 to help maximize safety and traffic flow.
- Provide funding for the Spokane Street Viaduct Widening Project, which includes a new Fourth Avenue S. off-ramp for West Seattle commuters.
- Add buses and bus service in the West Seattle, Ballard/Uptown, and Aurora Avenue corridors during the construction period, as well as a bus travel time monitoring system.
- Upgrade traffic signals and driver information signs for the Denny Way, Elliott Avenue W./15th Avenue W., south of downtown, and West Seattle corridors to support transit and traffic flow.
• Provide information about travel alternatives and incentives to encourage use of transit, carpool, and vanpool programs.

In addition, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

The lead agencies look forward to coordinating with the Port in the process of refining the strategies included as construction transportation mitigation measures.

L-014-052
Refer to Chapter 8 Mitigation of the Final EIS for more current information on mitigation measures. In addition, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

L-014-053
Further analysis of the traffic effects during construction has been conducted. The Final EIS Appendix C, Transportation Discipline Report, has been updated to address more fully the needs of the freight community.

The freight mobility strategies presented in the Transportation Discipline Report will continue to evolve over the course of the project. Input from the Port and the freight community via direct outreach, plus special workshops, have been incorporated in the Transportation Discipline Report.

The lead agencies are committed to working with freight interests to minimize operational impacts during the construction. Continued dialogue among all stakeholders will continue to be an important and essential part of project development and implementation.
The S. Spokane Street Viaduct to Fourth Avenue Loop ramp, now operational, provides two lanes for general purpose traffic. There is sufficient capacity during the peak hours for cars, buses, and trucks. In the 15th/Elliott Avenue corridor, Business and Transit Access (BAT) lanes have been installed between West Harrison and West Armour Streets. In general, these BAT lanes allow for vehicles intending to turn right at the next signaled intersection, or beforehand, into a business driveway, and for those vehicles merging left after turning into a BAT lane. King County Metro transit vehicles are permitted to pass through signaled intersections without turning right (as are bicycles), but other vehicles may be ticketed for doing so. The BAT lane becomes functional by restricting peak hour on-street parking and converting the parking lane to travel lane operation. The project team will continue to work with the Port and freight community to ensure trucks have reasonable access through the project corridor and affected area.

At this time, East Marginal Way between S. Spokane Street and Pier 46 (S. Atlantic Street) is being considered for designation as a local access, truck, and construction vehicle only roadway. The existing bicycle lane would be maintained. This designation would facilitate truck and construction haul movements, without restricting needed local access to this area. WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

The Final EIS has removed the reference to extending the port terminal gate hours as a mitigation strategy. The project team is committed to working with the railroad, freight shippers, and the Port of Seattle to minimize operational impacts during the construction of the project.
Responses to the Port's 2004 Draft EIS comments are included in item L-006.

The project is located in a Carbon Monoxide (CO) maintenance area. The Final EIS evaluated the reasonable worse case CO operational effects during construction for the preferred alternative (Bored Tunnel). The Bored Tunnel Alternative would meet the standards for criteria pollutants. Mitigation measures to address air quality effects during construction are discussed in Chapter 8 of the Final EIS.

PSCAA would regulate particulate emissions (in the form of fugitive dust, which includes but is not limited to diesel particulate matter) during construction activities. Memorandum of Agreement (MOA) has been developed between WSDOT and the Puget Sound Clean Air Agency (PSCAA) to help eliminate, confine, or reduce construction period emissions for many larger and longer term projects in Washington State. This MOA would apply to the Alaskan Way Viaduct Replacement Project. Mitigation measures are described in detail in the Final EIS Appendix M, Air Discipline Report.

Air quality mitigation measures have been developed to encourage the use of newer, more efficient construction equipment. The lead agencies will encourage the use of newer and more fuel-efficient equipment, when feasible.

Please note that the portion of the project area referred to in this comment is now part of the S. Holgate Street to S. King Street Viaduct Replacement Project. Effects on T-46 and mitigation measures are
discussed in the Environmental Assessment for that project.

Construction noise levels would meet the City of Seattle noise ordinance for industrial zone properties, such as Terminal 46. The lead agencies developed noise and vibration mitigation measures for this project. To reduce construction noise at nearby receptors, mitigation measures such as those discussed in Chapter 8 of the Final EIS and in Appendix F, Noise Discipline Report, would be incorporated into construction plans, contractor specifications, and variance requirements.

WSDOT will work closely with the Port to resolve any issues with the security cameras.

L-014-061

FHWA, WSDOT and the City of Seattle appreciate the Port of Seattle’s comments regarding in-water work near the Pier 66 marina. WSDOT will coordinate with Port staff regarding work in the vicinity of Port-owned properties for the Cut-and-Cover and Elevated Structure Alternatives. No in-water work is proposed as part of the preferred Bored Tunnel Alternative. Specific reference to the listed Port properties was eliminated for the Final EIS as potential mitigation sites. Coordination will continue between WSDOT, the Port, and other entities for developing appropriate mitigation for improving the marine habitat of Elliott Bay. The City of Seattle is leading redevelopment efforts and associated environmental reviews processes for the central waterfront, which would take place under NEPA and / or SEPA as appropriate. In addition, the project compliments a number of other projects with independent utility that would provide other improvements such as the seawall replacement, transit enhancements, and a new Alaskan Way Promenade and public space. These individual projects include the moving forward projects identified in 2007, as well as improvements recommended as part of the Partnership Process. Please refer to Chapter 2, Alternatives Development, of the Final EIS for a description of these projects.
the North SIG rail yard from the waterfront to use an elevated structure. Construction staging and lay-down areas, while as yet unidentified, could have a significant impact on container drayage and terminal operations. We appreciate the project team’s efforts to date to address our concerns with a new, improved design developed since the SDEIS was closed to new information. However, final design and construction must maintain the functionality and capacity of both our container terminals and drayage routes.

- The SDEIS proposes partially lowering Aurora from the Battery Street Tunnel to Republican Street, in conjunction with a design for a widened, two-way Mercer Street. The design and construction sequencing of these new components must provide for a viable truck corridor between Terminal 91 and I-5.

In addition to proposing design changes, a second reason for publishing a Supplemental DEIS was to provide information on new options for construction planning. However, while the document does outline three different construction scenarios, it does not address major construction-related issues that are of critical importance to the Port, the waterfront, and the region as a whole:

- The traffic analysis presented in the document shows the impact of losing the street and highway corridor. It does not address impacts to rail capacity. It provides only minimal information on what will happen under different construction scenarios, stages, and/or methods. It also does not give information on the impact of any potential traffic mitigation strategies. This applies to the impacts on a parcel-by-parcel basis along the waterfront, the impact on the corridor itself, and the impact on the region as a whole. The document begins to outline traffic mitigation strategies, but does not contain any information on their impact.

- The SDEIS also does not evaluate the economic impact of different construction scenarios, stages, and/or methods. This includes the impact of prolonged lack of access to waterfront businesses. As the largest property owner in the project area, we are concerned about impacts to our terminals, piers, and other facilities. For example, we cannot see how our cruise terminal at Pier 66 and operations at Pier 69 can function with the Broad St. Detour in place. Nor does the SDEIS address the economic impact of project-related congestion lasting for several years on the region as a whole. The SDEIS also does not contain mitigation strategies that could be employed to buffer these impacts, nor does it identify the costs of such measures.

Understanding the traffic and economic impacts, and the cost and impact of any mitigation strategies, is critical. We cannot understand or support any construction plan without that information. The Port must understand the impacts of the project on its facilities and tenants and the business operations, and the cost and impact of applicable mitigation strategies, to then support the project and be able to participate in its funding.

L-014-062
The text should have referred to fishing on Pier 66. This has been updated in the Final EIS.

L-014-063
As you noted, the letter to Ms. Stenberg repeats and expands upon the points made in this letter to Secretary MacDonald and Mayor Nickels. Please refer to the responses provided above.
The limited information that is currently available indicates that economic impact and mitigation costs to the Port and its tenants could comprise a substantial portion of any Port financial participation in the project.

In addition to introducing changes to design and construction plans, the SDEIS also proposes using available and projected funds to construct a “core project”; project components not contained in that core would be built at a later, as yet unspecified time. The northern portion of the seawall is no longer included in the core project. Yet its failure, and related failures of the mainline rail and Alaskan Way Surface, would have severe impacts on the Port and the economy of the region. We cannot lose sight of this critical infrastructure. The City must develop a specific funding and implementation plan for the entire seawall that ensures it will be replaced within a reasonable timeframe.

However that being said, we would like to echo both the Governor’s, and the Expert Panel’s, comments that it is time to make a decision and move forward with the project, with these issues resolved. The risk, both financial and safety, of not doing so is too great.

Thank you again for the opportunity to participate in this project and comment on this Supplemental Draft Environmental Impact Statement. We are also sending a more detailed, technical set of comments to WSDOT’s SEPA Responsible Official, Kate Stenberg. We look forward to continuing work with your project team to define and fund a project that will replace the SR 99 Viaduct and the City’s aging seawall.

Sincerely,

Lloyd Hara
Vice President
Port of Seattle Commission

Cc: Kate Stenberg, Alaskan Way Viaduct Environmental Manager, WSDOT
    Port of Seattle Commission
    Mic Dinsmore, Chief Executive Officer, Port of Seattle
Your objections to the convey and treat approach are acknowledged, and the approach is not being carried forward in the Final EIS. Please see L-005 for the responses to your 2004 Draft EIS comment letter.

The project area that contains the Whatcom Railyard is now covered under a separate project--S. Holgate Street to S. King Street Viaduct Replacement Project. Please refer to that project's Environmental Assessment and Finding of No Significant Impact (FONSI) for details about project effects.
A detailed land use analysis has been performed for the Final EIS that accurately calculates existing and proposed impervious surfaces within the project limits for each alternative. To the extent possible, stormwater will be managed so that sub-basin boundaries and receiving waters will not change.

Please see Appendix P, Earth Discipline Report; significant dewatering is no longer expected in the North End. Dewatering methods, treatment, and disposal will be determined in the permitting and design phase of the project. We appreciate your comments regarding dewatering treatment options in the north project area. Your preference for discharge of dewatering water to Lake Union will be considered.

The build alternatives would not affect the Metro utility structure near the western end of South Lander Street. Since 2006, the lead agencies have selected the Bored Tunnel Alternative as the preferred alternative. Please refer to Appendix K, Public Services and Utilities Discipline Report, for an updated discussion of potential impacts. Specific impacts and mitigation are being discussed during ongoing coordination between the lead agencies and the utility providers, including King County.

Thank you. King County staff have provided valuable information throughout the project’s planning and environmental evaluation.
A Memorandum of Agreement has been developed between WSDOT and the Puget Sound Clean Air Agency to help eliminate, confine, or reduce fugitive dust during the construction period. State and federal environmental regulations, as well as the air conformity regulations, will be followed. Please see the Final EIS Appendix M, Air Discipline Report, for the current methods used to assess air quality effects for this project and for the effects discussion. Mitigation measures will be in place during the demolition and construction of the project as discussed in Chapter 8 of the Final EIS, and in the Air Discipline Report.
improvements. We recommend that it be implemented in conjunction with the air quality construction mitigation plan recommended above.

In closing, the Agency reiterates its offer to assist WSDOT with the development of a construction air pollution emission control plan and extends the offer of assistance to include the CTMP.

If you have any questions concerning my comments please contact me at 206-689-4085 or paulc@pscleanair.org.

Sincerely,

Paul Carr, Air Resource Specialist
Puget Sound Clean Air Agency
Your comments supporting the lowering of Aurora Avenue and constructing bridges above the roadway to reconnect some of the local surface streets are noted. The concept of enhancing neighborhood connections across Aurora Avenue has continued to be among the improvements considered as part of the project. Please see the Final EIS for the current configurations proposed for each build alternative for the project area north of the Battery Street Tunnel.

The Alaskan Way Viaduct Replacement Project does not include specific plans for new park and recreation facilities or specific waterfront amenities because the purpose for the project is to provide a replacement transportation facility that meets current seismic standards and improves traffic safety, among other things.

The City of Seattle is leading the Central Waterfront Project to redevelop the waterfront. The exact configuration and types of activities on the waterfront will be decided during the planning and design process for that project. There will be opportunities for the public to participate in that master planning effort and to determine the future of their waterfront.
The build alternatives have been refined since the 2006 Supplemental Draft EIS, and neither the Cut-and-Cover Tunnel Alternative nor the Elevated Structure Alternative include ferry queuing on Alaskan Way. The preferred Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project. The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle and will be coordinated with Washington State Ferries.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.
FHWA, WSDOT, and the City of Seattle recognize that the Seattle City Council voted the Tunnel Alternative to be their preferred alternative in January 2005. However, after the 2006 Supplemental Draft EIS was published, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2006, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2006 Supplemental Draft EIS, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

The lead agencies appreciate receiving your comments supporting the lowering of Aurora Avenue and constructing bridges above the roadway to reconnect some of the local surface streets. The concept of enhancing neighborhood connections across Aurora Avenue has continued to be among the improvements being considered as part of the project. See
the Final EIS for the current configuration of each proposed build alternative north of the Battery Street Tunnel.

L-018-003
A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

L-018-004
The south portal location has been analyzed by the design team for the preferred alternative, which is the Bored Tunnel Alternative, and the Cut-and-Cover Tunnel Alternative. The configuration of the tunnel requires that on- and off-ramps access the tunnel from the tunnel portals. Moving the tunnel portal south would force the on- and off-ramps into the existing railyards. This option is not feasible given the current rail operations and rail traffic.

L-018-005
A lid over SR 99 from King Street to S. Royal Brougham Way was not proposed as it would be cost-prohibitive and would not increase pedestrian connections between pedestrian activity areas. The addition of a lid would essentially extend the tunnel and would require similar support facilities for ventilation, fire suppression, and emergency egress. This structure would have similar costs per linear foot as the tunnel. In addition, because the area in question is bordered to the west
by the Port of Seattle's marine container operations, a pedestrian lid would not link the stadium areas to a destination.

**L-018-006**
The speed limit along the Alaskan Way surface street is currently 30 mph, the standard speed limit for arterial streets in the City of Seattle. The Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives, the three build alternatives carried forward to the Final EIS, do not propose to change the speed limit along the Alaskan Way surface street. Traffic signals on Alaskan Way for the Cut-and-Cover Tunnel and Elevated Structure Alternatives would be designed to help facilitate safe and efficient traffic flow along the corridor. The Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project.

**L-018-007**
The build alternatives have been refined since the 2006 Supplemental Draft EIS, and neither the Cut-and-Cover Tunnel Alternative nor the Elevated Structure Alternative include ferry queuing on Alaskan Way. The preferred Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project. The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle and will be coordinated with Washington State Ferries.

**L-018-008**
The Alaskan Way Viaduct Replacement Project does not include specific plans for new park and recreation facilities or specific waterfront amenities because the purpose for the project is to provide a replacement transportation facility that meets current seismic standards and improves traffic safety, among other things.

The City of Seattle is leading the Central Waterfront Project to redevelop
the waterfront. The exact configuration and types of activities on the waterfront will be decided during the planning and design process for that project. There will be opportunities for the public to participate in that master planning effort and to determine the future of their waterfront.

**L-018-009**

The lead agencies, including the City of Seattle, have worked cooperatively and collaboratively with the major landowners along the city's waterfront since the beginning of the project. The Port of Seattle and the Department of Natural Resources, along with many other local and state agencies have been included continuously in meetings and planning discussions with the lead agencies and staff, and will continue to do so, as the final project design is completed.
The lead agencies are aware of the Tribe’s fishing rights in this area and will work with you to avoid or minimize any adverse effects. The temporary overwater structure would be needed for either the Cut-and-Cover Tunnel or Elevated Structure Alternatives to maintain access to Colman Dock while the seawall and other nearby structures are under construction. As part of the State Highway System and a critical link the regional transportation network, ferry service must be continued throughout construction. The temporary structure between Pier 48 and Colman Dock will be removed before the end of construction. The temporary overwater structure is not required for the preferred Bored Tunnel Alternative.

T-001-002
This Final EIS describes mitigation for many project impacts and identifies those impacts which cannot be avoided. The preferred Bored Tunnel Alternative does not require any in-water work. For either the Cut-and-Cover Tunnel or Elevated Structure Alternatives, a portion of the overwater structure of Pier 48 would be removed prior to construction of the temporary structure connecting the upland portion of Pier 48 with Colman Dock. This would mitigate the temporary increase in overwater coverage.
Since 2004, the project has evolved, and the preferred Bored Tunnel Alternative does not require any in-water work. The seawall would be replaced by a separate project led by the City of Seattle.

The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include constructing a new seawall. The cantilevered sidewalks included with the new seawall under these alternatives currently exist along the Seattle waterfront. Due to their narrow profile, height, and the west to southwest orientation of the seawall they cast very little or no shadow on the intertidal area, depending on time of day and season. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would construct the new seawall at or landward of the existing seawall. This would slightly increase the area and volume of shallow water nearshore habitat in the project area.

The overwater extension between Pier 48 and Colman Dock has been deleted from the project, although the temporary access bridge between these piers remains part of construction for the Cut-and-Cover Tunnel and Elevated Structure Alternatives. Discussion of the potential shading effects of this bridge are provided in the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report.
Please note the preferred Bored Tunnel Alternative does not include replacing the Elliott Bay Seawall. That is now a separate project led by the City of Seattle. For the Cut-and-Cover Tunnel and Elevated Structure Alternatives, which include replacing the seawall, the outfalls will be replaced in-kind at the same locations and depths, to minimize in-water work activities and disturbance of potentially-contaminated sediments in the nearshore environment.

The project team recognizes the legitimate concern of the Tribe for potential interference with fishing conducted by the Tribe in Elliott Bay. Any vessel movements associated with construction would be mostly in the immediate vicinity of the Terminal 46, with occasional transit across the open water of Elliott Bay. FHWA, WSDOT, and the City of Seattle will continue to coordinate and consult with the Suquamish Tribe to minimize conflicts between construction vessel movements and tribal fishing activities and to develop mitigation as appropriate.

Regular consultation has continued through the development of the 2006 and 2010 Supplemental Draft EISs. Consultation is currently in process with regards to resolution of adverse effects of the Bored Tunnel Alternative presented in the 2010 Supplemental Draft EIS. This consultation will result in the development of a Memorandum of Agreement (MOA). The MOA will include provisions for the creation of a historic properties treatment plan for the data recovery, evaluation, and monitoring of archaeological resources. In addition, the MOA will also result in the creation of an Unanticipated Discovery Plan for the treatment of unanticipated archaeological resources or human remains that are discovered during construction. The Suquamish have been one of the tribes that have been consulted throughout this process.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

The Final EIS includes a qualitative economic analysis for all of the alternatives that more fully describes indirect benefits. Quantitative estimates of indirect benefits are not needed to understand the likely effects of the project in the context of the decision at hand.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.

C-001-004
Thank you for your consideration of how the seawall integrates with the alternatives. Since 2004, the project has evolved. Please see the Final EIS for current information on the alternatives. For the Cut-and-Cover Tunnel Alternative, constructing one wall that would serve as both the new seawall and west wall of the tunnel along the central waterfront could help to make the construction staging and costs of that piece of the project more efficient. For the preferred Bored Tunnel Alternative, the seawall would be a separate project. For the Elevated Structure Alternative, the seawall would need to be replaced as part of the project, because a new elevated structure on the existing alignment requires the geotechnical stabilization afforded by a new seawall.

C-001-005
Current access to and from SR 99 between Ballard and the industrial areas south of downtown would change under the preferred Bored Tunnel Alternative. This alternative would remove connections via the Elliott and Western Avenue on- and off-ramps. Freight operators traveling from Ballard, Interbay, and Magnolia could make their trip by either (1) traveling on Elliott Avenue and Alaskan Way (via Broad Street) to SR 99 ramps at Alaskan Way S., or (2) traveling on Mercer Street to the SR 99 ramp at Sixth Avenue N. and Republican Street.

This project recognizes the importance of preserving routes for the transport of hazardous and flammable materials. Please note that transport of these materials through the Battery Street Tunnel is currently prohibited. Additionally, transport of these materials on the Viaduct is prohibited during peak commute periods. Alternate routes are provided on Alaskan Way and on I-5.
While the ventilation system for the Bored Tunnel Alternative is being designed for a fire with a heat release rate of approximately 100 MW (a category of fire typically associated with a 4,000-gallon tanker truck with hydrocarbon fuel), flammable and hazardous materials will be prohibited in the new tunnel. This cargo would have to use one of the alternate routes identified above, just as they do today if they would otherwise travel through the Battery Street Tunnel or during peak periods.

C-001-006
WSDOT has authorization from the state legislature for $2.8 billion to replace the Alaskan Way Viaduct. This does not involve or require a local improvement district or tax increment financing. The City of Seattle is leading improvements to the Central Waterfront, including Alaskan Way. The City may consider a variety of funding mechanisms for these improvement.

C-001-007
The alternatives considered in the Final EIS provide sufficient vehicle capacity in the project corridor. The Final EIS and Appendix C, Transportation Discipline Report, provide updated transportation information for each alternative.

C-001-008
All components of the preferred Bored Tunnel Alternative are fully funded by federal, state, and local sources. The state legislature has not addressed funding for either the Cut-and-Cover Tunnel or the Elevated Structure Alternatives. Cost estimates for the alternatives evaluated in the Final EIS are:

- Bored Tunnel – $1.96 billion
- Cut-and-Cover Tunnel – $3.0 to $3.6 billion
- Elevated Structure – $1.9 to $2.4 billion
These cost estimates do include different elements. The Bored Tunnel Alternative cost does not include replacing the seawall, improving the Alaskan Way surface street, or building a streetcar. Costs for the Cut-and-Cover Tunnel and Elevated Structure Alternatives do not include replacing the seawall between Union and Broad Streets.

C-001-009
For the Cut-and-Cover Tunnel Alternative, appropriate security and safety measures would be used to ensure the safety of the waterfront. With the preferred Bored Tunnel Alternative, the seawall would be a separate project led by the City of Seattle. Security measures for the Bored Tunnel Alternative have been discussed and design considerations have been evaluated.

C-001-010
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the
central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront. None of the three alternatives included in the Final EIS include the lowered Aurora concept. However, John, Thomas, and Harrison Streets would connect across Aurora Avenue with the Bored Tunnel Alternative and improve the neighborhood connections.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Currently, transporting hazardous materials is prohibited at all times in the Battery Street Tunnel, and during peak periods on the viaduct. This would continue to be the case under the Elevated Structure Alternative. Transporting flammable or hazardous materials would be prohibited in the tunnel for the preferred Bored Tunnel Alternative and the Cut-and-Cover Tunnel Alternative. Operators hauling these types of materials would need to use I-5 or Alaskan Way.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.
Please see the updated pedestrian facility descriptions in the Final EIS. East-west pedestrian access across SR 99 would be provided at S. Atlantic Street and S. Dearborn Street. From S. King Street northward, east-west connections would be similar to today's. In addition, pedestrian facilities adjacent to both sides of SR 99 in the Stadium area would be improved compared to existing conditions. With the Bored Tunnel Alternative, SR 99 would be underground by S. Dearborn Street, improving the pedestrian environment at S. Dearborn Street and northward.

Updated Stadium ramp configurations are described in the Final EIS. Analysis of traffic patterns for vehicles accessing ramps to and from SR 99 in the stadium area show that vehicles will disperse on to a variety of streets in the area such as S. Royal Brougham Way, Alaskan Way, First Avenue, Fourth Avenue, etc. Included within the discipline report are a variety of metrics looked at roadway and intersection performance. These analyses were performed with analytical tools using data for a range of modes including pedestrians, trucks, transit, ferries and automobiles.

The Elliott/Western ramps are included in the Cut-and-Cover Tunnel and Elevated Structure Alternatives but are removed in the Bored Tunnel (Preferred Alternative). Please refer to Appendix C, Transportation Discipline Report, of the Final EIS for traffic analysis in both the Belltown and Pioneer Square neighborhood areas.

The City of Seattle is leading the project for the Alaskan Way Surface Street Improvements and its associated environmental review process, which would take place under NEPA and/or SEPA as appropriate. This project involves rebuilding and improving Alaskan Way between S. King
Street and Pine Street. The new surface street would be six lanes wide between S. King and Columbia Streets (not including turn lanes) and four lanes between Marion and Pike Streets. Generally, the new street would be located east of the existing Alaskan Way surface street where the viaduct is today to create a wider public space along the waterfront.

C-002-007
The stadium area interchange connecting S. Atlantic Street and S. Royal Brougham Way to SR 99 is now under construction, but it is now known as the S. Holgate Street to S. King Street Viaduct Replacement Project.

C-002-008
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

C-002-009
The number of lanes proposed along the Alaskan Way Viaduct with the
build alternatives were select based on the projected demand as well as the capacity of connecting segments and roadways. This is to ensure that the new segment doesn't introduce a new bottleneck into the corridor, or conversely, doesn't provide excess capacity that couldn't be used effectively. Improvements to I-5 and other corridors have been studied as part of construction transportation planning and through other efforts, but cost-effective solutions on these corridors that could accommodate projected growth and some share of the SR 99 traffic over the long term have not been identified.

C-002-010
Thank you for your comment regarding the Flexible Transportation Package (FTP). Since the Draft EIS was published in 2004, the FTP has been further developed as part of the project's construction transportation planning process (though the name FTP is no longer being used). The Final EIS details a proposed set of actions aimed at managing mobility and reducing travel impacts associated with construction of the Alaskan Way Viaduct Replacement Project. These actions are intended to help transit operate efficiently given increased general-purpose traffic in the downtown Seattle area during construction. These actions should improve transit access through downtown Seattle and minimize the effect of peak period traffic congestion for transit passengers and operators.

C-002-011
Along with the project, the mitigation measures being considered have evolved since 2004 and no longer consider low-interest loan packages. Chapter 8 of the Final EIS and Appendix L, Economics Discipline Report, describes mitigation measures for the project in detail. The mitigation measures for the build alternatives have common themes:

• Focusing on clearly defining and directing pedestrian and vehicle traffic in a systematic and streamlined manner
• Providing adequate parking for construction workers and
encouraging short-term parking along the waterfront
• Distributing timely and informative project and construction updates
• Providing noise mitigation
• Preparing and assisting businesses within the project area to maintain an accessible and profitable business
FHWA, WSDOT and the City appreciate PSCA’s continuing involvement with the project. Thank you for your comments. PSCA’s preference for the 2004 Cut-and-Cover Tunnel Alternative is acknowledged. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a new seawall, a four-lane surface roadway along the Alaskan Way surface street, and transit improvements. A four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the six-lane roadway evaluated in the Draft EIS. Careful study of this alternative shows that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent, though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. With so much traffic shifted to street level, Alaskan Way won’t be the pedestrian-friendly waterfront you would expect without a viaduct. The increased traffic congestion would also make travel times worse for buses. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS,
many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

C-003-002
Thank you for your comment and your association’s willingness to help with mitigation planning. FHWA, WSDOT, and the City of Seattle have been working with the Pioneer Square community (including your organization) since the Draft EIS was published to discuss construction effects and mitigation measures. These discussions will continue throughout project construction. In addition, the Final EIS provides much more detail about construction effects and proposed mitigation.

C-003-003
Under the Bored Tunnel Alternative the configuration of the Alaskan Way surface street will be determined by the Central Waterfront Project, which is a separate project being led by the City of Seattle. With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the Alaskan Way surface street would be improved as part of the Alaskan Way Viaduct Replacement Project. Under all alternatives, the design of Alaskan Way and other features in the Pioneer Square Historic District area will be done with its history in mind and be reviewed by the Pioneer Square Preservation Board.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information on the alternatives. The purpose of replacing the viaduct is to protect public safety and provide essential vehicle capacity to and through downtown Seattle. All of the alternatives would provide sufficient capacity. With the preferred Bored Tunnel Alternative, north portal access would be near Harrison and Republican Streets and the connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate project. The Elliott and Western Avenue ramps are part of the Cut-and-Cover Tunnel and Elevated Structure Alternatives.
The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.
C-004-003
The final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle. In the south portion of the project area, bicycle lanes and sidewalks provided on surface streets would complement the Port Side and City Side Pedestrian/Bike Trails that will be constructed as part of the S. Holgate Street to S. King Street Viaduct Replacement Project. In the north portion of the project area, the shared-use facility on Mercer Street would increase bicycle connections across SR 99 and improve rider safety and overall experience in the Seattle Center/South Lake Union area. These enhancements to bicycle mobility would be further improved with the bicycle lanes included as part of the John Street crossing of SR 99. Several of the improvements suggested in this comment are outside of the project area. Please refer to the Final EIS for a current description of the alternatives.

C-004-004
In the early stages of the project, design modifications were evaluated near the Spokane Street area to determine whether access between I-5 and SR 99 could be improved. However, this element was not carried forward due to a variety of design challenges. Please see the Final EIS for updated design details.

Please see Chapter 6 of Appendix C, Transportation Discipline Report, for details about proposed construction mitigation, and Chapter 8 of the Final EIS for description of all proposed mitigation measures.

C-004-005
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing
the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

C-004-006
The preferred Bored Tunnel and Elevated Structure Alternatives will not affect the BNSF alignment in the area between Eagle Street and the existing BNSF portal near Virginia Street. The Cut-and-Cover Tunnel Alternative would likely affect the architectural concrete fascia at the BNSF portal structure but would not preclude realignment below grade in this area.

C-004-007
Currently, it is assumed that overall lane capacity will likely not be increased on the Alaskan Way surface street during construction. Please refer to the Final EIS for updated information. The ultimate design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

C-004-008
The City is developing a Central Waterfront Plan that will guide redevelopment of the central waterfront after the viaduct and seawall are replaced. A concept plan was published in July 2006, and the City will
begin the detailed master plan in 2011. The plan calls for new public spaces, public art, and a waterfront promenade.

**C-004-009**

Improving the intersection between Spokane Street and the West Seattle Bridge is not a part of this project. Information on the South Spokane Street Project can be found on the City of Seattle website http://www.seattle.gov/transportation/spokanestreet.htm.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purpose and need and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Although the Bored Tunnel alternative would remove the Elliott and Western ramps connecting to SR 99, the City of Seattle would provide a new connector from a reconstructed Alaskan Way surface street to Elliott and Western. The Elliott/Western Connector is an independent project from the Bored Tunnel Alternative. The connector would be four lanes wide and would provide an overcrossing of the BNSF mainline railroad tracks. Additionally, it would provide local street access to Pike and Lenora Streets and integrate back into the street grid at Bell Street, which would improve local street connections in Belltown. The new roadway would include bicycle and pedestrian facilities.

The project team is currently evaluating opportunities to improve pedestrian access and safety. More information about mitigation during construction can be found in Chapter 8 of the Final EIS and Appendix C, Transportation Discipline Report.

Appendices D and E, Visual Quality Technical Memorandum and Visual Simulations, from the Supplemental Draft and Final EISs include the view to the south down Elliott Avenue from Bell Street. The Visual Quality discussion describes the differences between the three alternatives, as to which design could act as a barrier, or conversely, allow a continuous corridor for views as well as for pedestrian movements.
In the 2006 Supplemental Draft EIS, the Tunnel Alternative did consider two types of lid structures from Pike Street to Victor Steinbrueck Park. Also considered was the option of configuring SR 99 under Elliott and Western Avenues as it approached the Battery Street Tunnel.

C-005-003

Noise mitigation measures are discussed in Appendix F, Noise Discipline Report, and in Chapter 8 of the Final EIS. With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the majority of sensitive receptors in the Belltown area would not experience a significant change in noise levels compared to existing conditions. The preferred Bored Tunnel Alternative would decrease noise levels in the area just south of the Battery Street Tunnel, but it would not change noise levels significantly in other areas of Belltown.

C-005-004

Please see the Final EIS, Appendix C Transportation Discipline Report for updated discussion and analysis of pedestrian facilities and safety issues for the Bored Tunnel Alternative (preferred alternative), Cut-and-Cover Tunnel Alternative, and Elevated Structure Alternative in the Belltown area.

Although the Bored Tunnel alternative would remove the Elliott and Western ramps connecting to SR 99, the City of Seattle would provide a new connector from a reconstructed Alaskan Way surface street to Elliott and Western. The Elliott/Western Connector is an independent project from the Bored Tunnel Alternative. The connector would be four lanes wide and would provide an overcrossing of the BNSF mainline railroad tracks. Additionally, it would provide local street access to Pike and Lenora Streets and integrate back into the street grid at Bell Street, which would improve local street connections in Belltown. The new roadway would include bicycle and pedestrian facilities.
C-005-005
The alternatives analyzed in the Final EIS do not introduce additional connections in the Belltown area, and actually eliminate the Battery Street ramps to general purpose traffic, except for emergency and maintenance vehicles. While Elliott and Western Avenues will continue to carry heavy traffic volumes (as they do today), volumes on other streets in Belltown are generally not expected to increase for the three alternatives analyzed in the Final EIS. Please refer to the Final EIS Appendix C, Transportation Discipline Report, for more information regarding traffic impacts in the Belltown area.

C-005-006
Construction of the project will require nighttime construction activities, and the City requires a Major Public Project Construction Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance. The Major Public Project Construction Noise Variance will be presented for public comment. Mitigation measures are described in the Final EIS and Appendix F, Noise Discipline Report.
After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.

The project has evolved since 2004. Please see the Final EIS for updated information. A connection between Alaskan Way and Elliott and Western Avenues would be a separate project with the Bored Tunnel Alternative. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single,
large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

C-006-004
Noise levels for the build alternatives are shown in Chapter 5 of the Final EIS. Both of the tunnel alternatives would reduce noise levels in the area near the existing Elliott and Wester ramps, while the Elevated Structure Alternative noise levels would remain similar to existing conditions. North of the Elliott and Western Avenue ramps, the majority of sensitive receptors in the Belltown area would experience similar noise levels compared to existing conditions for all of the build alternatives. Please see the Final EIS Appendix F, Noise Discipline Report, for updated information on noise levels for each alternative.
Since the 2004 Draft EIS, the alternatives and construction approaches have been further developed as described in the 2006 Supplemental Draft EIS and the Final EIS. Potential impacts from the alternatives on the Belltown area, such as increases in traffic, noise, and dust during construction are described in the Final EIS Appendix C, Transportation Discipline Report; Appendix F, Noise Discipline Report; Appendix M, Air Discipline Report; and Appendix L, Economics Discipline Report. In addition, Appendix H, Social Discipline Report, describes potential effects on various social elements of the Belltown neighborhood.

Coordination with the Belltown neighborhood is ongoing. Outreach meetings have been conducted with several businesses regarding the potential for economic and other construction or operational impacts. Coordination will continue through the construction phase of the project.

C-007-002

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.

**C-007-003**
The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The Olympic Sculpture Park is now an existing public park. The underpass at Broad Street that was analyzed in the Draft EIS is no longer being considered.

**C-007-004**
Traditional methods of noise mitigation, such as noise barriers and berms, are not feasible to this project due to the location and densely developed nature of the project area. The Cut-and-Cover Tunnel Alternative considers a lid in the vicinity of Victor Steinbrueck Park. This is the only lid being considered for the project. Other noise abatement methods are addressed in the Final EIS in the form of a qualitative analysis.

The majority of sensitive receptors in the Belltown area would not experience a significant change in noise levels over existing conditions compared to the preferred the Bored Tunnel Alternative.
Specific effects on arterial streets during construction and operations are evaluated in the Final EIS Appendix C (Sections 5 and 6), Transportation Discipline Report.

As explained in the 2010 Supplemental Draft EIS and the Final EIS, the Surface Alternative is no longer considered as it does not meet the project’s purpose and need to provide capacity to and through downtown Seattle.

Chapter 6 of the Final EIS and Appendix C, the Transportation Discipline Report, provide information on proposed construction haul routes and also describe the temporary construction effects. Chapter 8 of the Final EIS describes mitigation measures for traffic. The City of Seattle will not allow haul routes on streets where pavement conditions could not sustain the heavier loads and trip frequencies.

Construction of the project will require nighttime construction activities, and the City requires a Major Public Project Construction Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance. The Major Public Project Construction Noise Variance was presented for public comment. The Final EIS and Appendix F, Noise Discipline Report, describe construction noise effect in the project area.

Please refer to the Final EIS for updated information on pedestrian facilities. As noted in the Final EIS, the Bored Tunnel Alternative would remove the Elliott and Western ramps, which would contribute to improved pedestrian safety in that area. The Program would reconfigure
and improve the pedestrian environment in the vicinity of the existing Elliott and Western ramps. The Cut-and-Cover Tunnel Alternative also would reconfigure that area. For the Elevated Structure Alternative, the pedestrian environment would be similar to today.

Pedestrian access would be maintained at all times during construction activities. At times, it would be necessary to reroute pedestrians using temporary facilities/detours, but these detours would be designed to minimize any inconvenience. Any pedestrian facility (e.g., sidewalk, bridge, path, etc.) that may be removed to accommodate construction activities will be replaced with a temporary facility in a nearby location. Further details regarding the specifics of pedestrian detours during construction will become available once the construction plans evolve.

S. Lander Street currently terminates at the railroad tracks (Colorado Avenue S.), which would not change with any of the alternatives evaluated for the project. There is not currently, nor would there be with the project, pedestrian access to the waterfront via Lander Street. The discussion of pedestrian safety and access has been updated in the Final EIS to reflect the work that has been done since the Draft EIS was published.
Since 2004, the project has evolved (please refer to the Final EIS for updated information). The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate project. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.

Many people have expressed that they enjoy the views when traveling on the viaduct. The visual character and quality of the views, as well as the likely viewer response of drivers and passengers, were discussed for each alternative in the 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS.

The Final EIS analysis considers views in the SR 99 corridor, which is designated as a City of Seattle Scenic Route, and identifies and assesses designated view corridors largely along east-west streets. Views from the roadway and of the viaduct structure are both assessed. The lead agencies considered the visual quality analysis in Appendix D, Visual Quality Discipline Report, in the 2004 Draft EIS, and 2006 and 2010 Supplemental Draft EISs during the decisionmaking process.

The lead agencies agree that the seismically vulnerable sections need to be replaced as soon as possible. Chapter 3 of the Final EIS describes the construction sequencing, staging, and durations for the preferred alternative and other alternatives. Please refer to Chapters 6 and 8 in the Final EIS and Appendix C, Transportation Discipline Report for details about the temporary construction effects and mitigation for traffic.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Aerial Alternative. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative to meet today’s safety standards while minimizing the effects of a wider structure. This alternative was analyzed in the 2006 Supplemental Draft EIS, and the design was refined in the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
Principles to Guide Reconstruction/Replacement of the SR99/Alaskan Way Viaduct and Seawall

Adopted by BIMNC Action Committee
January 8, 2003
Ballard District Council March 2003

1. Recognize that BIMNC and Duwamish industrial areas are interdependent and require predictable and efficient connecting routes at all times. Efficient, effective arterial and rail connections along the entire SR99/Viaduct route are essential to the economic viability of both areas and the entire city.

2. Design Viaduct and Seawall projects so that automobile and truck access to and from Ballard/15th Avenue West to SR99/Alaskan Way Viaduct is grade-separated from railroad crossings and where possible, or due to significant access demands, from other modes of transportation as well. Access to SR99/Viaduct will continue to be on the east side of the Burlington Northern main line tracks, or if access must be moved across the railroad tracks, this access must be grade separated. We recommend full consideration of either elevated (ramps) or tunnelled options to ensure efficient corridor access especially at the northwestern portal (Western approaches from Elliott to Broad and Virginia).

3. Maintain or improve road and rail capacity for freight movement from the Ballard Interbay Northend Manufacturing Industrial Center to Alaskan Way after completion of the project. Other projects such as the Art Museum’s sculpture garden and redevelopment of the waterfront urban corridor must not be allowed to reduce this capacity.

4. Maintain or improve freight access to the waterfront and Alaskan Way. Freight must be allowed to use any new or rehabilitated structures, and have continued access to the waterfront.

5. Maintain predictable access to and from the Ballard Interbay Industrial area to SR99/Viaduct and related freeways and arterials during construction, and use all possible means (email, web listings, real time signage) to alert corridor users of changes to access routes.

6. Maintain access and unrestricted movement by vehicles carrying hazardous material cargos through this corridor including any interim period during construction.

7. Design all roadway grades to accommodate the unique needs of freight vehicles.

8. Provide for direct freight access to downtown Seattle destinations, including particularly deliveries within the waterfront area and immediate uplands area from Elliott to Spokane Street.

9. Coordinate the schedule and design for Viaduct and Seawall projects with other nearby transportation, utility, and private or public development projects, and avoid multiple, sequential, and redundant rights-of-way closures or restrictions.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Rebuild Alternative. After studying several retrofitting concepts, the lead agencies found that rebuilding the viaduct would not be a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative, which was analyzed in the 2006 Supplemental Draft EIS and the Final EIS.

The Bored Tunnel Alternative would have the shortest construction duration as well as the least traffic impacts during construction of any of the build alternatives evaluated throughout the NEPA process. Although trucks carrying flammable/combustible freight will be precluded from using the bored tunnel to make connections to BINMIC, they will be able to use the Alaskan Way surface street and the new Elliott/Western Connector as described in Chapter 5 of the Final EIS. The addition of up to 6 minutes of travel time for these trips could contribute to an unavoidable loss of economic productivity for the businesses affected by these conditions. For additional detail on travel times, see Chapter 5 of Appendix C, Transportation Discipline Report.

The project has evolved since 2004, please refer to the Final EIS for updated information. The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate project led by the City of Seattle. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.
Because the project has evolved since comments were submitted in 2004, please see the Final EIS for updated information on the alternatives. Appendix C, Transportation Discipline Report, includes additional information on traffic and freight conditions. The Broad Street undercrossing is no longer part of the project and is not included in the Final EIS. Mercer Street would become a two-way street in the project area. The connection between Elliott and Western Avenues and Alaskan Way would be a separate project with the preferred Bored Tunnel Alternative. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.

The Final EIS evaluates shifts in traffic and impacts to major east-west streets. Specific traffic impacts on major east-west corridors during the construction phase are documented in the Final EIS Appendix C, Transportation Discipline Report. The evaluation of construction traffic impacts defines and identifies traffic impacts in the downtown core and in neighboring areas such as Pioneer Square, Belltown, and the Stadium district. The analysis targets alternative north-south routes to the Alaskan Way Viaduct (including First Avenue, Second Avenue, etc.), as well as key east-west arterials in and around downtown.

The Surface and Bypass Tunnel Alternatives have been dropped from consideration because they did not meet the project's purpose. Both alternatives would have caused substantial increases in travel times and congestion.
Transporting flammable or hazardous materials would be prohibited in the bored tunnel. Operators hauling these types of materials would need to use I-5 or Alaskan Way.

The project team is committed to working with the freight community and the City to define alternative routes and appropriate mitigation for the construction period. These are addressed in the Final EIS Appendix C, Transportation Discipline Report. In addition, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

Chapter 6 in the Final EIS discusses other major construction projects in the downtown area that may overlap with the Alaskan Way Viaduct construction schedule. Since the Draft EIS was published in 2004, the Seattle Monorail Project has been cancelled and the Seattle Ferry Terminal Project has been delayed. The Alaskan Way Viaduct Replacement Project will continue to coordinate with the other major construction projects in the area.

FHWA, WSDOT, and the City of Seattle are committed to working with the freight community to develop alternative freight routes and strategies to address freight concerns during the construction period. The project has identified a number of strategies designed specifically for freight, in addition to the strategies designed to reduce travel demand and mitigate traffic congestion. All strategies identified for freight and general traffic will be in-place prior to major construction. Chapter 8 of the Final EIS and Appendix C, the Transportation Discipline Report, also discuss the effects and mitigation for freight during construction.

The construction plans for all alternatives assume construction could...
occur up to 24 hours a day, 7 days a week. The lead agencies must balance the construction schedule with the transportation needs in the corridor when deciding how long SR 99 will be completely closed during construction. Not all types of construction activities would be allowed 24 hours a day. For example, as part of the mitigation measures associated with the noise variance permit, the noisest construction activities will likely be limited to daytime hours. Please refer to the Final EIS and Appendix C, Transportation Discipline Report for details about the temporary construction effects and mitigation for traffic.

C-009-009
These economic and business effects have been taken into consideration during all phases of the project design and development of construction sequencing, along with other environmental effects. These effects and mitigation measures for the current alternatives are described in the Final EIS and Appendix L, Economics Discipline Report. The project team will continue to work with businesses throughout the construction process.

C-009-010
The project area that is north and east of the Battery Street Tunnel is part of the project because it is an important part of the transportation system that connects SR 99 to both the viaduct portion of SR 99 and local streets. Two purposes of the project as stated in the purpose and need statement are to:

- Provide capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle, and
- Provide linkages to the regional transportation system and to and from downtown Seattle and the local street system.

This includes access to and from downtown, which is provided by
connections made north of Battery Street Tunnel. Therefore, these areas are part of the same corridor from a transportation planning perspective.
The preferred Bored Tunnel Alternative meets the project's purpose and provides sufficient capacity in the SR 99 Corridor. The Surface and Bypass Tunnel Alternatives have been dropped from consideration because they did not meet the project's purpose. Both alternatives would have caused substantial increases in travel times and congestion.

No changes are proposed for Westlake Avenue as part of the Project. FHWA, WSDOT, and the City of Seattle are committed to working with the freight community to develop alternative freight routes and strategies to address freight concerns during the construction period.

Coordination with the City of Seattle Department of Transportation to review freight route adjustments, including accommodations for over-legal vehicles, is ongoing. Currently, the City allows access through the Seattle Center City, provided that operators of over-legal trucks obtain a permit and operate their trucks only during times allowed for in the permit. As the project progresses, outreach to the freight community will occur to address the needs of over-legal trucks either as part of the preferred Bored Tunnel Alternative or on surface Alaskan Way after construction. Analysis results addressing impacts to freight are provided in Appendix C, Transportation Discipline Report, of the Final EIS.
Thank you for your comment. The project recognizes the importance of SR 99 to the regional transportation system.

The project has evolved since 2004, please refer to the Final EIS for updated information. The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate independent project associated with the Bored Tunnel Alternative. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would provide a functionally similar connection with SR 99 ramps at Elliott and Western Avenues, similar to the existing viaduct structure.

Under all three build alternatives analyzed in the Final EIS, Broad Street would be closed between Fifth Avenue N. and Ninth Avenue N. so that the street grid could be reconnected. Mercer Street would continue to cross under SR 99 as it does today, but it would be widened and converted to a two-way street with three lanes in each direction and a center turn lane. Please see Appendix C, Transportation Discipline Report, of the Final EIS for a discussion of the transportation impacts of the three build alternatives.

Currently, transporting hazardous materials is prohibited at all times in the Battery Street Tunnel, and during peak periods on the viaduct. This would continue to be the case with the Elevated Structure Alternative. Transporting flammable or hazardous materials would be prohibited in the tunnel for the preferred Bored Tunnel Alternative and the Cut-and-Cover Tunnel Alternative. Operators hauling these types of materials...
would need to use I-5 or Alaskan Way.

The project team is committed to working with the freight community and the City to define alternative routes and appropriate mitigation for the construction period. These are addressed in Appendix C, Transportation Discipline Report, of the Final EIS. Mitigation measures are described in Chapter 8 of the Final EIS.

C-010-007

Please see Chapter 3 of the Final EIS for a description of the three build alternatives analyzed and the configuration of the on- and off-ramps in this area. Work on the SR 519 Project is complete. The SR 519 Project improved connections for traffic heading to the Port of Seattle terminals, Colman Dock ferry terminal, central waterfront area, sports stadiums, and destinations in Seattle's SODO neighborhood. SR 519 improvements separate car, freight, pedestrian, and rail traffic to help improve mobility and pedestrian safety and reduce the risk of collisions. All major work was completed before the start of construction to replace the Alaskan Way Viaduct between S. Holgate and S. King Streets.

C-010-008

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and
Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Chapter 8 of the Final EIS and Appendix C, Transportation Discipline Report, provide information on construction haul routes and also describe the temporary construction effects and mitigation for traffic. The City of Seattle will likely not allow haul routes on streets where pavement conditions could not sustain the heavier loads and trip frequencies. Access to and from SR 99 would be provided by new ramps near the stadiums and near Seattle Center. If the Bored Tunnel Alternative is selected, the City of Seattle would construct a new road between Alaskan Way and the Elliott/Western corridor.

Chapter 6 of the Final EIS discusses other major construction projects in the downtown area that may overlap with the Alaskan Way Viaduct construction schedule. Since the Draft EIS was published in 2004, the Seattle Monorail Project has been cancelled and the Seattle Ferry Terminal Project has been delayed. The Alaskan Way Viaduct Replacement Project will continue to coordinate with the other major construction projects in the area.

C-010-009

Project cost estimates include funding for police and other traffic control measures during construction.

C-010-010

The Final EIS evaluates shifts in traffic and impacts to major east-west streets. Specific traffic impacts on major east-west corridors during the construction phase are documented in the Final EIS Appendix C,
Transportation Discipline Report. The evaluation of construction traffic impacts defines and identifies traffic impacts in the downtown core and in neighboring areas such as Pioneer Square, Belltown, and the Stadium district. The analysis targets alternative north-south routes to the Alaskan Way Viaduct (including First Avenue, Second Avenue, etc.), as well as key east-west arterials in and around downtown.

C-010-011

Thank you for your comment regarding the Flexible Transportation Package (FTP). Since the Draft EIS was published in 2004, the FTP has been further developed as part of the project's construction transportation planning process (though the name FTP is no longer being used). The Final EIS details a proposed set of actions aimed at managing mobility and reducing travel impacts associated with construction of the Alaskan Way Viaduct Replacement Project. These actions are intended to help transit operate efficiently given increased general-purpose traffic in the downtown Seattle area during construction. These actions should improve transit access through downtown Seattle and minimize the effect of peak period traffic congestion for transit passengers and operators.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Rebuild Alternative. After studying several retrofitting concepts, the lead agencies found that rebuilding the viaduct would not be a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative, which was analyzed in the 2006 Supplemental Draft EIS and the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Since 2004, the project has evolved (please refer to the Final EIS for updated information). The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate project. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.
Because the project has evolved since comments were submitted in 2004, please see the Final EIS for updated information on the alternatives. Appendix C, Transportation Discipline Report, includes additional information on traffic and freight conditions. The Broad Street undercrossing is no longer part of the project and is not included in the Final EIS. Mercer Street would become a two-way street in the project area. The connection between Elliott and Western Avenues and Alaskan Way would be a separate project with the preferred Bored Tunnel Alternative. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.

The Final EIS evaluates shifts in traffic and impacts to major east-west streets. Specific traffic impacts on major east-west corridors during the construction phase are documented in the Final EIS Appendix C, Transportation Discipline Report. The evaluation of construction traffic impacts defines and identifies traffic impacts in the downtown core and in neighboring areas such as Pioneer Square, Belltown, and the Stadium district. The analysis targets alternative north-south routes to the Alaskan Way Viaduct (including First Avenue, Second Avenue, etc.), as well as key east-west arterials in and around downtown.

The Surface and Bypass Tunnel Alternatives have been dropped from consideration because they did not meet the project's purpose. Both alternatives would have caused substantial increases in travel times and congestion.
Transporting flammable or hazardous materials would be prohibited in the bored tunnel. Operators hauling these types of materials would need to use I-5 or Alaskan Way.

The project team is committed to working with the freight community and the City to define alternative routes and appropriate mitigation for the construction period. These are addressed in the Final EIS Appendix C, Transportation Discipline Report. In addition, WSDOT will be preparing a construction traffic management plan for the selected alternative as construction plans are refined.

Chapter 6 in the Final EIS discusses other major construction projects in the downtown area that may overlap with the Alaskan Way Viaduct construction schedule. Since the Draft EIS was published in 2004, the Seattle Monorail Project has been cancelled and the Seattle Ferry Terminal Project has been delayed. The Alaskan Way Viaduct Replacement Project will continue to coordinate with the other major construction projects in the area.
FHWA, WSDOT, and the City of Seattle are committed to working with the freight community to develop alternative freight routes and strategies to address freight concerns during the construction period. The project has identified a number of strategies designed specifically for freight, in addition to the strategies designed to reduce travel demand and mitigate traffic congestion. All strategies identified for freight and general traffic will be in place prior to major construction. Chapter 8 of the Final EIS and Appendix C, the Transportation Discipline Report, also discuss the effects and mitigation for freight during construction.

The construction plans for all alternatives assume construction could occur up to 24 hours a day, 7 days a week. The lead agencies must balance the construction schedule with the transportation needs in the corridor when deciding how long SR 99 will be completely closed during construction. Not all types of construction activities would be allowed 24 hours a day. For example, as part of the mitigation measures associated with the noise variance permit, the noisest construction activities will likely be limited to daytime hours. Please refer to the Final EIS and Appendix C, Transportation Discipline Report for details about the temporary construction effects and mitigation for traffic.

These economic and business effects have been taken into consideration during all phases of the project design and development of construction sequencing, along with other environmental effects. These effects and mitigation measures for the current alternatives are described in the Final EIS and Appendix L, Economics Discipline Report. The project team will continue to work with businesses throughout the construction process.

The project area that is slightly north and east of the Battery Street
Tunnel is part of the project because it is an important part of the transportation system that connects SR 99 to both the viaduct portion of SR 99 and local streets. Two purposes of the project as stated in the purpose and need statement are to:

- Provide capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle, and
- Provide linkages to the regional transportation system and to and from downtown Seattle and the local street system.

This includes access to and from downtown, which is provided by connections made north of Battery Street Tunnel. Therefore, these areas are part of the same corridor from a transportation planning perspective.
The Alaskan Way Viaduct Replacement Project team has been and continues to coordinate with other projects in the area throughout the design process to ensure that viaduct plans effectively interface with current design plans for other projects (including SR 519, S. Spokane Street Viaduct, and SR 509).

Several projects, such as S. Spokane Street Project, are included in the updated regional 2030 baseline model used for the Final EIS transportation analysis. Other projects that had uncertain plans, timelines, or did not have funding sources were not specifically described in the EIS because of their uncertainty. Please refer to the Final EIS for updated information.
The project has been designed to accommodate freight movements due to its importance as a freight corridor. A discussion of traffic effects to all travelers, and specifically freight, is discussed in the Final EIS.

The Surface and Bypass Tunnel Alternatives have been dropped from consideration because they did not meet the project's purpose. Both alternatives would have caused substantial increases in travel times and congestion.

Relocation of the downtown ramps from Seneca and Columbia Streets to King Street is not expected to increase traffic in the North Duwamish area. Traffic that currently uses the existing downtown ramps at Columbia Street and Seneca Street is expected to travel further south along city streets (such as Alaskan Way) to access the new SR 99 ramps at in the stadium area. Traffic is not expected to divert further south than the new stadium area interchange. Traffic modeling indicates that these new ramps could actually slightly decrease traffic on arterials routes south of the stadium area downtown since they provide additional access to the south downtown area.

The referenced northbound off-ramp at S. Atlantic Street has been moved to Alaskan Way at S. Dearborn Street. This strategy was included in the final design of the S. Holgate Street to S. King Street Viaduct Replacement Project.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the
extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

C-012-006
Construction for the SR 519 project is complete. With the SR 519 Project, WSDOT improved connections for traffic heading to the Port of Seattle terminals, Colman Dock ferry terminal, central waterfront area, sports stadiums, and destinations in Seattle’s SODO neighborhood. SR 519 improvements separate car, freight, pedestrian, and rail traffic to help improve mobility, pedestrian safety and reduce the risk of collisions. All major work was completed before the start of construction to replace the Alaskan Way Viaduct between S. Holgate and S. King streets.

The City of Seattle designed the South Spokane Street Viaduct Widening Project in 1995 and has been implementing it in phases due to funding availability. Major portions of this project are under construction and the project is scheduled to be complete by May 2012. Please see the project’s website for more details:
http://www.cityofseattle.net/transportation/spokanestreet.htm

C-012-007
Land use assumptions used for the Alaskan Way Viaduct Replacement Project traffic models, including forecasted growth in households and employment, is based on the most current information provided in the Puget Sound Regional Council’s Metropolitan Transportation Plan (2030) and the City of Seattle’s Comprehensive Plan.

Model assumptions were updated for the Final EIS. Details regarding
The design of this project in the vicinity of SAFECO Field and Seahawks Stadium needs to be reexamined. The Port of Seattle is committed to the long-term use of Terminal 46 as a container facility for Hanjin. This requires access to the north SIG yard as well as to I-5 and I-90 via SR-519. The design alternatives currently under consideration do not address the long term requirements of the Port, nor do they provide adequate access to businesses and properties in the vicinity of the project. The ideal solution to the complex issues in this area would seem to be an extension of the cut and cover tunnel south to Holgate Street. This option was investigated earlier in the design phase, but was rejected as too costly. We believe that the extension of a tunnel through this area has merit and should be reexamined. It solves the east west access issues and provides a much broader range of options for future development in the area. We need only look to Boston for a catalog of innovative transportation solutions. The Ted Williams Tunnel, the Charles River Bridge, tunnel Jacking, advanced soil stabilization techniques and collaboration with Japanese and European engineering firms are setting standards for the next century. While Boston is developing a world-class transportation infrastructure, Seattle is mired in cost conscious political expediency. Effective long term solutions may be more expensive initially, but short-term fixes will cost considerably more over the long term.

Any replacement for the viaduct must maintain or expand existing capacity and access, anything less will create additional transportation problems which will have to be faced in the future. It must also address the reconstruction of the crumbling sea wall which supports the viaduct itself. The only current alternative that addresses all of these issues is the cut and cover tunnel. It opens up Seattle’s waterfront, simultaneously replaces the seawall and most importantly preserves capacity. The City and State have been exploring every option to reduce the costs of this project. We are concerned that these agencies are in such a rush to fund and initiate construction that they are willing to settle for an inadequate alternative which creates more problems than it solves.

David Huchthausen - Chair
Duwamish Planning Committee

C-012-008

Budgeting for the mitigation of Viaduct construction impacts must adequately account for the length of construction and the severity of these impacts on local businesses. The City must also develop a comprehensive plan to address the alternative routing of freight and oversized vehicles during the construction period.

C-012-009

1. The Utah Avenue alignment was unlikely to be compatible with the existing S. Spokane Street interchange, as well as the existing First Avenue S. ramps to and from S. Spokane Street. This could require a complete reconstruction of these two areas.
2. A Utah Avenue S. alignment would also make a grade separation of S. Atlantic Street and S. Royal Brougham Way infeasible.
3. To allow local access, a Utah Avenue S. alignment would probably be on an aerial structure from S. Spokane Street to the stadium area, adding significant costs to the project.

The design of the south end of the project corridor is a result of attempting to carefully balance the needs of freight mobility both in general and with regard to the Port’s container terminal facilities, stadium event traffic, and pedestrian safety and connectivity. Please see the these updates can be found in the Transportation Discipline Report (Appendix C) of the Final EIS.
Final EIS for the current configuration of the south end of the project for each proposed build alternative.

**C-012-009**

Current cost estimate and future financing include mitigation measures to protect and support local businesses. These measures, and their costs, will be refined as project planning and development continues. Alternative routes for freight and oversized vehicles will be provided during all phases of construction.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments and recognize your preference for the 2004 Cut-and-Cover Tunnel Alternative. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. If this alternative is selected, the City of Seattle would replace the seawall under another project, called the Elliott Bay Seawall Project.

The lead agencies plan to maintain access to businesses throughout construction. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project will continue its coordination and mitigation activities with businesses and other affected parties in the project area.
C-013-002
The lead agencies have taken this information and these needs into consideration as part of our construction and mitigation planning effort. Additional information related to construction effects and proposed mitigation is discussed in the Final EIS. In addition, we will continue discussing construction details and issues with the Aquarium and other affected landowners and tenants throughout project construction. Access will be maintained during viaduct removal. Primary pedestrian routes would have signage, directional arrows, lighting, and other amenities. All pedestrian routes would provide safe and clean access through the construction zone.

C-013-003
If the preferred alternative is selected, the City of Seattle would be responsible for the development of the central waterfront under a separate project. Likewise, if the preferred alternative is selected, the City of Seattle would replace the seawall under a separate project. There will continue to be opportunities for the public to participate in that planning effort and to help determine the future of their waterfront as the City moves forward with its projects.

C-013-004
If either the Elevated Structure Alternative or Cut-and-Cover Tunnel Alternative is selected, the seawall replacement and design of the Alaskan Way surface street would be part of those alternatives.

C-013-004
Thank you for your offer. The Bored Tunnel Alternative (the preferred alternative) does not include the seawall as a project component. However, if an alternative is selected that incorporates replacement of the seawall, we will consult with you at that time.
C-013-005
The lead agencies plan to maintain access to businesses throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. The lead agencies recognize that businesses along the central waterfront rely on the short-term parking in the area. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. No long-term staging is proposed for the Bored Tunnel Alternative in the vicinity of the Aquarium. There may be temporary staging within the City of Seattle right-of-way during viaduct demolition and removal.

C-013-006
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
Ms. Allison Ray
Alaskan Way Viaduct and Seawall Replacement Project Office
May 12, 2004 (Page 4)

The Viaduct/Seawall project offers the opportunity not only to solve safety and transportation problems, but to return the Central Waterfront of Seattle to its historic importance. The Seattle Aquarium physically occupies the center of the Waterfront, and symbolically represents the City's connection to the sea. We are enthusiastic partners with you in this challenging process.

Sincerely,

[Signatures]

Paul Kundtz, President
Board of Directors

Gary J. Smith
Vice President, Public Partnerships

Robert W. Davidson
Chief Executive Officer

cc: Hon. Gary Locke, Governor, State of Washington
    Hon. Greg Nickels, Mayor, City of Seattle
    Seattle City Council
    King County Council
    Ken Bounds, Seattle Superintendent of Parks
    Bill Amtz, Seattle Aquarium Director
The lead agencies appreciate your organization's efforts to coordinate with the project. The Olympic Sculpture Park was discussed in the 2004 Draft EIS, and it is considered an existing condition in the Final EIS. The underpass at Broad Street that was analyzed in the 2004 Draft EIS is not proposed as part of any of the build alternatives evaluated in the Final EIS. The Battery Street Flyover Detour is also no longer proposed.

During construction, the preferred Bored Tunnel Alternative does not propose using the Broad Street Detour. The Bored Tunnel Alternative minimizes SR 99 closures and restrictions to a greater degree than the alternatives evaluated in the 2004 Draft EIS. Construction of the Cut-and-Cover Tunnel and Elevated Structure Alternatives continues to require substantial SR 99 closures and lane restrictions. During construction, the Cut-and-Cover Tunnel Alternative does not require use of the Battery Street Detour; however, the Elevated Structure Alternative does propose to use the Broad Street Detour. This detour requires constructing a temporary trestle crossing over the railroad tracks at Broad Street and Alaskan Way.

An updated description of the proposed alternatives, their effects, and proposed mitigation is provided in the Final EIS.
location has already become an anchor for new development that will provide homes and a source of jobs for many. The project will substantially strengthen Seattle's waterfront tourism industry, and is expected to draw an estimated 600,000 visitors per year.

The new Olympic Sculpture Park will represent a considerable alteration to the landscape while at the same time incorporating the transportation infrastructure and safe pedestrian access to the Waterfront. The new park will link together three separate sites now divided by Elliott Avenue and the BNSF tracks. Since this new park will be opening free of charge to the public in 2006 - prior to any proposed viaduct construction commencing in 2008 - its presence should be more substantially considered in the Final EIS.

Accordingly, both proposed detours for SR 99 traffic - Broad Street Detour and Battery Street Flyover Detour - would pose considerable violations to pedestrian access and neighborhood connection to this newly completed major civic project. We would urge the FEIS to figure out how to divert traffic to create a publicly accessible and people-friendly waterfront prior to 2020, and to take advantage of the opportunity offered by the Olympic Sculpture Park that will showcase the natural and aesthetic elements of the State: its environment, its art, and above all its civic community commitment.

One particular feature of the Broad Street Detour - referred to as the Broad Street underpass beneath the railroad tracks - should be dropped in the FEIS.

During the fall of 2003, this element of the viaduct was thoroughly considered, analyzed, and determined to be inefficient, expensive and ultimately not necessary by the City/State Alaskan Way Viaduct team. That lengthy process, directed by Maureen Sullivan, determined that it was cheaper and more traffic-efficient to replicate the underpass with improved ramps at Elliott and Western. Accordingly, the FEIS should not assume the underpass as a pre-existing condition to construction. Rather, the FEIS should assume the 8.5-acre Olympic Sculpture Park at the north end of the seawall as a pre-existing park.

Sincerely,

Mimi Gardner Gates, Director
C-015-001

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Through your involvement and assistance developing the Memorandum of Agreement for the project, you have received current information on the subjects raised in this letter. For current information on other subjects, please refer to the Final EIS for current information.
If the preferred Bored Tunnel Alternative is selected the Washington Street Boat Landing would not be affected by the project's construction. However, if the Cut-and-Cover Tunnel or Elevated Structure Alternative is selected, the Washington Street Boat Landing pergola would be removed during construction and replaced close to its present location, at the edge of the water at the foot of Washington Street. Rehabilitation and relocation of the structure will be reviewed by the Pioneer Square Preservation Board.

C-015-002

We are concerned about the Washington Street Boat Landing, also known as the Harbor Station Master Building, Pioneer Square’s only extant contact with Elliott Bay. Its location and design responds to Alaskan Way. In past ferry expansion discussions, Historic Seattle did not support moving the structure from its current location. This structure, now in poor condition, is planned for removal and reinstallation as a part of all viaduct alternatives. While Historic Seattle strongly supports the thoughtful rehabilitation of this significant structure, we are also concerned about the integrity of Pioneer Square as a historic district — and the district’s historic relationship to the water evidenced by the boat landing — within the viaduct plans.

If it is necessary to move the Washington Street Boat Landing from the base of Washington Street, we strongly support careful consideration of the impact this will have on the district. Mitigation for this impact should involve coordination with the Pioneer Square Community Association and other interested parties. Historic Seattle would happily provide assistance in crafting a mitigation plan.

We appreciate your attention to the many details of this project and look forward to the continued development of alternatives for this very important project.

Sincerely,

John Chaney
Executive Director
June 1, 2004

Mr. Douglas B. MacDonald, Secretary of Transportation
Alaska Way Viaduct and Seawall Replacement Project Office
999 Third Avenue, Suite 2424
Seattle, WA 98104

Hon. Greg Nickels, Mayor
City of Seattle
Seattle City Hall
600 Fourth Avenue, 7th Floor
Seattle, WA 98104-1876

Re: Viaduct/Seawall Replacement DEIS Comments

Dear Secretary MacDonald and Mayor Nickels:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the SR 99, Alaska Way Viaduct & Seawall Replacement Project. You have both demonstrated tremendous leadership in moving the project to this stage.

The Viaduct is vital to the region’s future and we are fully supportive of addressing this critical link in our regional transportation system.

Loss of the roadway capacity and local access provided by the Alaska Way Viaduct and the surface street—and the railroad mainline capacity that is dependent on the protection of the seawall—would be catastrophic. The region’s economic life and well-being depends on the service provided by these facilities. A long-term closure of the corridor would harm commerce and workers.

The Viaduct is vital for the efficiency of cargo terminals operations. Container trade through the Port was 1.5 million 20-foot equivalent units (TEUs) last year. The value of two-way waterborne trade is about $20 billion per year, which arrives at and departs Seattle primarily via rail and truck, sitting or passing under SR 99. Operations at Port of Seattle marine terminals support more than 18,000 jobs in the region and generate $895 million annually in wages and salaries and $107 million in state and local taxes each year (Martin and Associates report, September 2000). The value of international cargo moving among these areas was estimated at nearly $108 billion in 1997 (BST Associates report, January 1999). Terminal 46 alone supports 1,366 direct jobs and 2,415 indirect and induced jobs, which provide $187 million in personal income, and generates $22 million in state and local taxes plus $47 million in federal taxes.

Nancy Young, President  Sergio Salinas, Vice President  Steve Williamson, Executive Secretary

Affiliated with the American Federation of Labor and Congress of Industrial Organizations
Viaduct replacement in the area around Terminal 46 has been separated from the Alaskan Way Viaduct Replacement Project through the Moving Forward projects as described in Chapter 2 of the Final EIS. The S. Holgate Street to S. King Street Viaduct Replacement Project provides improved access for freight trucks into and out of the waterfront area, including the area around Terminal 46. Chapter 4, Affected Environment, of the Final EIS Appendix C, Transportation Discipline Report, discusses conditions with the S. Holgate to S. King Street Viaduct Replacement Project in place. For a description of the S. Holgate to S. King Street Viaduct Replacement Project, refer to Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report.
Changes to the Alaskan Way Viaduct Replacement Project since the Draft and Supplemental Draft EISs are described in Chapter 2 of the Final EIS.

FHWA, WSDOT, and the City of Seattle agree that this project is needed and vital to public safety. The purpose and need for the project is described in Chapter 1 of the Final EIS.

The preferred alternative will maintain the existing vehicle capacity in the corridor. Proposed construction phasing for the project is described in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report, and Chapter 3 of the Final EIS.

The Bored Tunnel Alternative minimizes disruption to the waterfront during construction because the alignment allows the existing viaduct to remain in service until the bored tunnel is brought into service. Repetitive structural elements for the bored tunnel, such as the tunnel lining segments, will be manufactured off-site at a pre-casting yard.

Both the necessity and the urgency of viaduct and seawall replacement is described in the Draft EIS in Chapter 1. The deterioration of both the viaduct and seawall has been well-documented by numerous engineering studies conducted by structural design and seismic experts since the mid-1990s and again following the February 2001 Nisqually earthquake, which necessitated emergency repairs to the viaduct structure. The consequences of collapse of either structure would indeed be dire for the city, and region in terms of possible injury or harm to people, loss of mobility, and associated substantial economic losses.
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

The Surface Alternative has been dropped from consideration, because it did not meet the project's purpose. The alternative would have reduced the roadway capacity by 40 to 50 percent, causing increased travel times and congestion.

Cost estimates produced for the project include a detailed risk analysis in the Cost Estimating Validation Process (CEVP). The project risk analysis recognizes risks of delay and additional cost associated with...
constructing a cut-and-cover waterfront tunnel. It’s worth noting that the Elevated Structure has some unique risks, too, for example, those associated with rebuilding the structure while maintaining traffic on it.

C-017-008
Costs are clearly an important factor in selection of the preferred alternative, as are benefits to local and regional traffic. However, these are not the only considerations that enter into the selection process. The project must also be considered as an integral part of Seattle’s central waterfront. Construction impacts are also a very important factor. These have all been integral to the lead agencies’ decision-making process.

C-017-009
Increasing the number of vehicles on I-5 is considered a regional issue, since many I-5 users are longer-distance, regional trips. Forecasting traffic increases on I-5 is an inexact process, and the estimate of 22,000 additional daily trips (about 20 percent of current AWV users) also takes into consideration the possibility that a number of AWV trips may not shift to alternate routes, but could instead make other changes in travel behavior (different destination, change mode, eliminate trips, etc.). Should changes in travel behavior be less than implied by the forecasts, then the impacts to I-5 could be greater. Conversely, even greater changes in travel behavior could result in somewhat lesser impacts to I-5.

Travel demand model forecasts indicate that each of the three build alternatives evaluated in the Final EIS would result in less traffic on I-5 than with the No Build (Viaduct Closed Alternative) in central and south downtown. The same trend holds true near the ship canal, with the exception of the Elevated Structure Alternative, which would have 800 more vehicles daily at this location. Accordingly, each of the build alternatives would improve regional mobility in general terms compared to the No Build (Viaduct Closed Alternative).
The alternatives analyzed in the 2004 Draft EIS, 2006 Supplemental Draft EIS, 2010 Supplemental Draft EIS, and Final EIS include a range of viaduct repair and replacement designs, with some elements of earlier concepts combined with other design structures as the team looked at feasibility, cost and other criteria. The environmental and financial impacts and benefits were factors as the lead agencies selected the preferred alternative.

Please note that the Bypass Tunnel is no longer an option for this project. With respect to the Cut-and-Cover Tunnel, the wall alone would have to be stiffer and stronger when the tunnel is not there. Also, the economy of putting in both east and west walls at the same time is lost. Therefore, it is not cost effective to construct the seawall in such a way that a cut-and-cover tunnel could be built in the future.

When the project is built, the capacity at the north and south ends of the project is expected to match what currently exists today. The additional lanes proposed along SR 99 as part of the build alternatives are provided as auxiliary lanes to help facilitate efficient traffic flow near entrance and exit ramps, alleviating congestion and queuing issues that currently exist.

Several different travel routes were selected for analysis in the Draft EIS and are included in the Final EIS. The routes selected are intended to represent primary travel movements served by the SR 99 corridor. Routes analyzed represent travel times for through-trips and for trips into and out of downtown Seattle. The intent of presenting travel information in this form was to present readers with data that could be easily
comprehended and related to their everyday experiences. System-wide
delay estimates are also included in the Final EIS.

C-017-014
The function of the downtown ramps at Columbia and Seneca Streets
will be replaced by new ramps to Alaskan Way at King Street. Traffic
analysis indicates that this arrangement will result in comparable or
better overall traffic distribution and flow than is experienced with the
current Columbia and Seneca Street ramps. This is because the current
ramps concentrate traffic to a single, congested location in central
downtown. The relocated ramps would instead allow drivers to diffuse
through the street grid using many different paths.

C-017-015
The Surface Alternative has been dropped from further consideration. As
explained in the 2010 Supplemental Draft EIS and the Final EIS, the
Surface Alternative does not meet the project's purpose and need to
provide capacity to and through downtown Seattle.

C-017-016
Considering that the Port of Seattle (POS) has facilities located between
Interbay and points south of S. Spokane Street, calculating travel times
from all the POS facilities and I-5 or I-90 was not feasible for this EIS. In
addition, given that truck traffic can typically use all of the facilities
designed for general traffic, travel times for trucks and general traffic will
be very similar. Travel times for representative travel time routes have
been calculated and can be found in the updated Transportation
Discipline Report, Appendix C of the Final EIS.

C-017-017
Additional geotechnical investigations and engineering analyses have
been conducted since the Draft EIS, as described in the Final EIS
Appendix P, Earth Discipline Report. Construction of any of the three build alternatives would include structures such as retaining walls, tunnels, foundations, excavations, and fills that would require ground improvements. All of the alternatives are designed to meet the current federal and state highway safety standards.

During the final design process, site-specific mitigation measures will be identified to address potential effects of settlement and ground improvements. Mitigation measures will be implemented in accordance with the plans and best management practices (BMPs) as described in Chapter 8 of the Final EIS.

C-017-018
The project's design team has evaluating the impact of tunnel construction on adjacent buildings and infrastructure along the corridor. Impacts include settlement that could occur adjacent to the tunnel excavation. Settlement can occur due to dewatering and excavation wall movement. For dewatering-induced settlement, design considerations—including a series of recharge wells—are being evaluated to mitigate potential lowering of the water table. For excavation-induced settlement, the wall system will be designed to be stiffer so that movements are minimized. In addition, instrumentation is proposed to monitor structures that are close to the tunnel walls. In some areas, underpinning or other structural strengthening may be required for existing structures to maintain their stability. These issues are all being reviewed during the design process.

The current alignment of the Bored Tunnel Alternative has the bored tunnel following the existing viaduct alignment until approximately the midpoint between Yesler Way and Columbia Street, avoiding sensitive structures at S Washington Street.
The improved ground will be a partial barrier to groundwater flow, resulting in a small amount of groundwater mounding. Groundwater buildup may be greater than 0.5 foot along the waterfront between about Pike Street and S. Washington Street, extending inland to about Fourth Avenue. Based on subsurface conditions and surface topography, a maximum groundwater buildup of approximately 3 to 4 feet could occur along the waterfront in the vicinity of Madison and Marion Streets. Within the vicinity of the seawall, potential groundwater buildup of this magnitude would be within the existing groundwater fluctuations resulting from tides in Elliott Bay that have been observed in shallow monitoring wells along the waterfront and therefore would not be a significant impact to the existing environment. It should be noted that most of the groundwater flow along the waterfront is coming from depth, not from upland. Because most of Seattle is paved, there is limited infiltration and flow of groundwater toward the waterfront in the near-surface soils. There is, however, an upward gradient of flow that flows from deeper soil layers to the ground surface.

Contamination has been detected in shallow groundwater along Alaskan Way. The contaminants typically consist of petroleum hydrocarbons and metals, and are typically at low concentrations relative to Washington State groundwater quality criteria. There is no provision to remediate shallow groundwater along Alaskan Way as part of this project. Contaminated groundwater encountered during construction would be pumped, treated, and disposed of in accordance with project permits.

The Final EIS describes the current project information and construction methods for the alternatives. The preferred Bored Tunnel Alternative would not replace the seawall. The Elliott Bay Seawall Replacement Project would be a separate project led by the City of Seattle.
If the Cut-and-Cover Tunnel Alternative or Elevated Structure Alternative is constructed, riprap would likely be replaced where the depths and location of the new seawall make it appropriate, although the project would minimize the disturbance of existing riprap. Riprap is not considered by many resource agency representatives to be “fish friendly,” although it appears to provide better habitat conditions than a flat concrete wall. Flatter slopes and finer grain substrate than riprap are desirable habitat characteristics in shoreline areas, and riprap is used primarily to protect the seawall. In addition, the replacement seawall with either alternative is expected to occur entirely landward of the existing seawall, thereby minimizing the need to alter the outside face of the existing seawall or any riprap areas.

The Final EIS describes the current project information and construction methods for the build alternatives. The preferred Bored Tunnel Alternative would not replace the seawall. The Elliott Bay Seawall Replacement Project would be a separate project led by the City of Seattle.

The Convey and Treat Approach has not been carried into the Final EIS. Based on detailed modeling, continued design, and coordination efforts a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This approach is described in Appendix O, Surface Water Discipline Report, and is most similar to the BMP Approach presented in the 2004 Draft EIS. To the extent possible, this stormwater management approach does not change sub-basin boundaries or receiving waters.
C-018-001

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Tunnel Alternative with no net roadway gain on Alaskan Way.

AWV Project Office
Allison Ray
999 Third Avenue, Suite 2424
Seattle, Washington 98104

May 31, 2004

Dear Ms Ray:

Allied Arts commends WSDOT, the City of Seattle and the Federal Highway Administration for their initial work to analyze the environmental impacts regarding changes to the downtown Seattle waterfront, as well as to guide the process our region is taking toward redevelopment of this neighborhood. We also consider the Draft EIS and associated comments to be just one step in a series of necessary input opportunities and collective decisions.

Our position regarding the Alaskan Way corridor is that all through-Seattle traffic should travel underground from Atlantic Street into the Battery Street Tunnel and that Alaskan Way should receive no net gain in roadway. (Though technically Alaskan Way includes the area below...
Thank you for providing some suggested questions. The first suggested question related to land use extends beyond the purpose and need of this project, which is "to provide a transportation facility and seawall with improved earthquake resistance that maintains or improves mobility and accessibility for people and goods along the existing Alaskan Way Viaduct Corridor." Potential effects to land from the Alaskan Way Viaduct Replacement Project are discussed in the 2004 Draft EIS, 2006 Supplemental Draft EIS, 2010 Supplemental Draft EIS, and the Final EIS. The question "What uses should we have for land on the waterfront?" is being considered as part of the City's Waterfront Planning Project, which is a broader land use and planning effort.

The 2004 Draft EIS, 2006 Supplemental Draft EIS, 2010 Supplemental Draft EIS, and the Final EIS do discuss the volume of vehicles currently using the corridor and the projected volume of vehicles expected in 2030. Additional details are provided in the Transportation Discipline Report, which is Appendix C to each of these documents. These documents discuss how freight, transit, typical drivers, and pedestrians use the SR 99 corridor and describe how each alternative would change for these drivers and different users.

Your third suggestion relates to habitat. The lead agencies are committed to avoiding and minimizing adverse effects to habitat within the project area, and they are interested in enhancing or improving existing habitat, where it is feasible. The Bored Tunnel Alternative does not include replacing the seawall, improving the Alaskan Way surface street, or building a streetcar. However, improvements to these facilities would be individual projects led by the City of Seattle that are part of the Alaskan Way Viaduct and Seawall Replacement Program.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel...
A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in the Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

In the preferred Bored Tunnel Alternative evaluated in the Final EIS, the portal was moved south of S. King Street.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in the Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

Your comment is appreciated and has been discussed by the design team. The configuration of the tunnel requires that on- and off-ramps access the tunnel from the tunnel portals. Moving the tunnel portal south would force the on- and off-ramps into the existing BNSF SIG and Whatcom railyards. This is not feasible given the current rail operations and traffic constraints.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

The layouts for the Alaskan Way surface street have been updated for the Final EIS and no longer include a service lane/access road. Please refer to the Final EIS for updated information. The ultimate design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

The need for tour and school bus waiting areas has been identified. This need would be greatest with the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative. The preferred Bored Tunnel Alternative is not likely to affect bus holding areas along the waterfront except during viaduct demolition. Alternate locations will be identified as construction plans are refined. These locations may be influenced by the Central Waterfront Project led by the City of Seattle.

The speed limit along the Alaskan Way surface street is currently 30 mph, the standard speed limit for arterial streets in the City of Seattle. The Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives, the three build alternatives carried forward to the Final EIS, do not propose to change the speed limit along the Alaskan Way surface street. Traffic signals on Alaskan Way for the Cut-and-Cover Tunnel and Elevated Structure Alternatives would be designed to help facilitate safe

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**Tourist and School Bus Holding Area**
A parking station for busses away from the waterfront should be considered, such that they need only load and unload and not park on Alaskan Way.

**No net Increase in Speed on Alaskan Way**
The speed limit on Alaskan Way should be no more than 30 mph. Traffic lights should be set to move traffic between 22 and 28 mph—again, in accordance with other downtown avenues.

**Distribute Additional Traffic Among All Downtown Avenues**
As changes are made to SR 99, any additional traffic directed to the surface should be spread equally among all of the downtown avenues. I-5 should also be considered as an alternative for increased capacity, especially if it is reconfigured.

**Pier Acquisition**
The center city piers (48 – 70) are in dire need of repair or removal and the businesses located on the piers are more than likely to suffer from the deconstruction and construction process. Economic, environmental and cultural considerations should be analyzed regarding acquiring the piers and mitigating re-location of the businesses located on them. Plans for the new seawall and traffic infrastructure should fully consider the possibilities of a reconfiguration of the piers and businesses located on the waterfront.

**Economic Analysis**
The DEIS lacks an analysis of the economic ramifications to the waterfront neighborhood that compares the five DEIS alternatives. A full study should be made using both an analysis of the Seattle waterfront, current and future, as well as a review of other cities’ waterfronts, post highway removal.
and efficient traffic flow along the corridor. The Bored Tunnel Alternative
does not include the Alaskan Way surface street as part of the project.

C-018-010
It is expected that, overall, traffic that diverts to use surface streets and
I-5 will distribute based on available capacity and driver consideration of
travel time of these various roadways. At this time, there are no plans to
substantially increase capacity along I-5 through the downtown core.
More information about these and other traffic management strategies
can be found in Appendix C, Transportation Discipline Report, of the
Final EIS.

With the preferred Bored Tunnel Alternative, the southbound on-ramp at
Columbia Street and the northbound off-ramp at Seneca Street will be
removed. Traffic patterns are expected to alter slightly with removal of
these ramps, and the Alaskan Way surface street is expected to carry
additional traffic to and from the central business district. Therefore, to
provide similar capacity levels as currently exists today, six lanes of
traffic on the Alaskan Way surface street are necessary south of Yesler
Way.

C-018-011
Reconstruction of the pier structures is beyond the scope (and Purpose
and Need) of the Alaskan Way Viaduct Replacement Project.
Additionally, the lead agencies do not own many of the piers. The
economic impacts and mitigation strategies for waterfront businesses are
described in the Final EIS and Appendix L, Economics Discipline Report.

C-018-012
A detailed Economic Technical Memorandum was prepared for this
project (Appendix P of the Draft and 2006 Supplemental Draft EISs) and
provided important information to the public and decision-makers. This
Conclusion
In conclusion, we recognize that the major landowners along the waterfront are each public entities, holding the land in the public trust. We call upon WSDOT, the City of Seattle, the Port of Seattle and the Department of Natural Resources to work cooperatively, as well as to value and consider the quality of life aspects of our new waterfront that are otherwise out of their stated missions.

The Seattle waterfront has a long tradition of making bold changes to meet the needs of Washingtonians. Just as we poured Denny Hill onto our shoreline and constructed a viaduct along the waterfront last century, we should not miss this once in a century opportunity to make the waterfront a legacy that will bring pride to Seattleites and Washingtonians of the future.

Sincerely,

David Yeaworth
President
Allied Arts of Seattle

document was updated as Appendix L, Economics Discipline Report, of the 2010 Supplemental Draft and Final EISs. The analysis addressed the reasonably foreseeable economic impacts and benefits of the alternatives. While this project is unique, the experience of other cities that have built similar projects has been considered by the lead agencies.

C-018-013
Future housing opportunities in adjacent neighborhoods and along the waterfront would be determined primarily by market conditions. If the demand for housing in these areas remains high, new development may include residential uses where zoning allows. The proposed project may influence this demand in two ways. First, during the initial phases of construction, demand for housing in the immediate project area may be low because of construction traffic and activities. Second, toward the end of construction and immediately thereafter, demand for residential uses in these areas may increase once new infrastructure has been provided.

It is not possible to determine if these influences would be certain because they are strongly dependent upon other factors, the most significant of which would be economic conditions. To some extent, the demand for downtown and/or waterfront property for all uses is expected to remain strong, because the amenity values associated with these areas tend to be highly valued. If the Seattle-area economy is strong, future demand may remain high, even during construction activities, particularly among longer-term investors. On the other hand, if local economic conditions decline, interest in high-cost properties such as those along the waterfront, may also subside. While new infrastructure may provide some attraction to the area, economic factors such as pricing, inflation, interest rates, and wages would be expected to strongly determine the supply and demand of housing in the downtown and waterfront areas. The Final EIS Appendix L, Economics Discipline
Report, and Appendix G, Land Use Discipline Report, discuss economic conditions and zoning in the project area.

C-018-014
The mobility and access of pedestrian activities and their interaction with motorized vehicles has been studied, and the results are reported in the Final EIS Appendix C, Transportation Discipline Report. The pedestrian promenade is also discussed in this document. Both east-west and north-south pedestrian movements would be maintained for the duration of construction activities. The design of the central waterfront pedestrian facilities will ultimately be developed as part of the Central Waterfront Project being led by the City of Seattle.

C-018-015
Direct impacts to fish and wildlife are avoided through the selection of the Bored Tunnel Alternative. With the Bored Tunnel Alternative, there is no in-water work for the Project. Because direct impacts are avoided, compensatory mitigation is not required.

C-018-016
Construction of the Olympic Sculpture Park and the resulting displacement of the vehicle storage and maintenance facility led to the indefinite suspension of the George Benson Line Waterfront Streetcar service in 2008. King County Metro currently provides replacement service with fare-free bus service on the Route 99 Waterfront Streetcar Line. The routing and stop locations for this line do not exactly duplicate those of the waterfront streetcar; however, Route 99 serves the same neighborhoods—the waterfront, Pioneer Square, and Chinatown/International District. The final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle.
The City of Seattle has evaluated the option of moving the Waterfront Streetcar from the Alaskan Way surface street to Western Avenue and found that businesses along the waterfront would be better served by maintaining operations in the Alaskan Way corridor.

C-018-017
The design of the Alaskan Way surface street is being carefully considered and coordinated with the City of Seattle. It is anticipated that the waterfront can become a prime public amenity for Seattle’s downtown and the Puget Sound region. The specific configuration and types of activities featured on the waterfront will be decided over the next several years as the City continues its central waterfront planning efforts. There will continue to be many opportunities for the public to participate in that planning effort to help determine the future of their waterfront.

C-018-018
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.

**C-018-019**
The preferred Bored Tunnel Alternative is not expected to affect access to the Olympic Sculpture Park.

With the Cut-and-Cover Tunnel or Elevated Structure Alternatives, pedestrian access to the Olympic Sculpture Park will be provided throughout project construction, although some detours may be required. During construction, vehicle detours for these two alternatives will be required near the park. The lead agencies will coordinate with the Seattle Art Museum if either of these alternatives is selected. The Broad Street underpass analyzed in the Draft EIS is no longer part of the project. Instead, the Cut-and-Cover Tunnel and Elevated Structure Alternatives propose to replace the ramps to Elliott and Western Avenues.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. The preferred Bored Tunnel Alternative would not redesign the Alaskan Way surface street. The final design of Alaskan Way is being led by the City of Seattle’s Central Waterfront Project.

The preferred alternative (Bored Tunnel Alternative) does not include improving the Alaskan Way surface street. Improvements to the Alaskan Way surface street would be led by the City of Seattle as one of several projects included in the Alaskan Way Viaduct and Seawall Replacement Program.

The City is developing a Central Waterfront Project that will guide redevelopment of the central waterfront after the viaduct and seawall are replaced. A concept plan was published in July 2006, and the City will begin the detailed master plan in 2011. The plan may include new public spaces, public art, and a waterfront promenade. Both the Tunnel and Elevated Structure Alternatives include expanded opportunities for pedestrians and bicyclists along the waterfront, and these new or enhanced facilities will connect with existing ones to both the north and south of the project corridor.

Washington State Ferries is also evaluating improvements to the Seattle Ferry Terminal and is coordinating with the project regarding access for that facility.

The tunnel could not be raised closer to the surface to minimize cost. A primary reason for the proposed depth of the tunnel is to accommodate the utilities that are required to transverse the tunnel sections. Many of
8. Develop other alternatives to the "frontage lanes" for delivery access.
   - Implement restricted hours for deliveries. For example, from 10:00 p.m. to 6:00 a.m.
   - Can the "Promenade" be used in restricted hours as a delivery lane, this would mean access to the sidewalk level via curb cuts, no dedicated lane.
   - Can the frontage road be limited to every other or every third street, instead of along the entire waterfront?
   - Why can't curb cuts allow trucks to back in for deliveries during restricted hours?
   - Is there a maximum distance for deliveries / drop off points dictated by city or state code? If not, why are we providing special access for these businesses when it will be severely detrimental to the waterfront, and takes up so much land.
   - In some schemes a frontage road is shown adjacent to a proposed green space by Pioneer Sq, is this necessary when there is no need for deliveries. Can we return this land to open space?

9. General Comments. Please provide cross-sectional representations for the north, middle, and south waterfront in the downtown area for each option and variant. The generic sections do not help one to see the various options.

10. Does a viaduct structure need to be replaced, or can capacity be delivered at the same price by improving other routes and modes of travel? For example, can improved, direct connections be made to I-5, 415, Airport Way and I-5 from the West Seattle Bridge? Can access from the north be made through improved, direct connections to 6th and 7th avenues, and perhaps through the tunnel to Belltown? Can new water, and rail based modes of transit decrease the need for the viaduct structure?

Comments:

The width, and number of lanes on the Alaskan Way surface street should not increase over what is there presently today. Four lanes plus a shared turn lane is more than adequate for the majority of the waterfront.

Alaskan Way Street Alignment:

Three options for the cross section of the waterfront should be studied or accommodated. These may come in combinations of 2 or all 3 if the final urban design calls for it. All assume the trolley is on Western Avenue, which would be preferable, although none are precluded with the trolley on Alaskan Way. If the trolley is on Alaskan Way it should run in traffic to preserve land for other uses.

- **Western street alignment:** Move Alaskan Way tight against the western edge of the waterfront promenade. Allow for approx. 30’ of promenade. Provide 2 lanes of traffic in each direction, the outer lane for parking in off-peak hours, a center turn lane only where these utilities require a certain depth of cover and cannot be raised. Please see the Final EIS for current information about the proposed depth for the Bored Tunnel Alternative, which is the preferred alternative for this project.

C-019-004

Refer to Chapter 3, Alternatives Description, of the Final EIS for updated descriptions of the alternatives. The ultimate design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

C-019-005

A wide waterfront promenade is planned along the water side of the Alaskan Way surface street as described in Chapter 5 of the Final EIS for the Cut-and-Cover Tunnel, and a smaller promenade would be developed for the Elevated Structure. For the preferred Bored Tunnel Alternative the City of Seattle will design and develop the area through its Central Waterfront Project.

C-019-006

Redesign of the ferry terminal at Colman Dock or related ferry queuing facilities would be led by Washington State Ferries and would not be a part of this project.

C-019-007

Evaluation of the types of trolley technologies for applicability on city streets is not related to the purpose of this project and therefore not evaluated in the EIS.

C-019-008

The design for the Alaskan Way surface street has continued to evolve as the project moves forward. The final configuration of Alaskan Way S.
will now be determined by the Central Waterfront Project being led by the City of Seattle. For more information, please see the Final EIS.

C-019-009
Please see the updated alternatives descriptions and graphics in the Final EIS.

C-019-010
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs.

Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

C-019-011
With the Cut-and-Cover Tunnel and Bored Tunnel Alternatives, the
southbound on-ramp at Columbia Street and the northbound off-ramp at Seneca Street will be removed. Traffic patterns are expected to alter slightly with removal of these ramps, and the Alaskan Way surface street is expected to carry additional traffic to and from the central business district. Therefore, to provide similar capacity levels as currently exist today, six lanes of traffic on the Alaskan Way surface street are necessary south of Yesler Way. With the Elevated Structure Alternative, additional lanes proposed on portions of Alaskan Way are for the purpose of improving traffic circulation and flow, especially in the vicinity of Colman Dock. The ultimate design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

The alignment of the Waterfront Streetcar has been updated for the build alternatives evaluated in the Final EIS. Please see the Final EIS for more information. The City of Seattle has evaluated the option of moving the Waterfront Streetcar from the Alaskan Way surface street to Western Avenue and found that businesses along the waterfront would be better served by maintaining operations in the Alaskan Way corridor.

C-019-012

The project has evolved since comments were submitted in 2004; the Final EIS discusses ferry queuing on Alaskan Way. Neither the Cut-and-Cover Tunnel Alternative nor the Elevated Structure Alternative include ferry queuing on Alaskan Way. The preferred Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project. If this alternative is selected, the final design of the waterfront will be determined by the Central Waterfront Project being led by the City of Seattle and will be coordinated with Washington State Ferries. Colman Dock modifications and/or improvements are not part of the Alaskan Way Viaduct Replacement Project and are to be determined by Washington State Ferries.
The frontage lane has been removed from the Alaskan Way surface street plans for the Cut-and-Cover Tunnel and Elevated Structure Alternatives. Please refer to the Final EIS for updated information. With the preferred Bored Tunnel Alternative, the final design of the Alaskan Way surface street will be determined as part of the City of Seattle’s Central Waterfront Project.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide...
frequent parking updates

- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

C-019-015

Construction of the Olympic Sculpture Park in 2008 led to the indefinite suspension of the George Benson Line Waterfront Streetcar service because it displaced the vehicle storage and maintenance facility. King County Metro currently provides replacement service with fare-free bus service on the Route 99 Waterfront Streetcar Line. The routing and stop locations for this line do not exactly duplicate those of the waterfront streetcar; however, Route 99 serves the same neighborhoods—the waterfront, Pioneer Square, and Chinatown/International District. With the Bored Tunnel Alternative the final location of the streetcar will be determined by the Central Waterfront Project being led by the City of Seattle. Both the Cut-and-Cover Tunnel and the Elevated Structure Alternatives include the streetcar along Alaskan Way.

C-019-016

Please see the Final EIS for the current proposed designs of the build alternatives. The Final EIS describes the current proposed locations for the tunnel operations buildings (which include the ventilation structures) and the locations of emergency egress locations.

C-019-017

Stormwater will be managed in accordance with the applicable stormwater management regulations. The Final EIS discusses how current requirements will be met. Currently, bioswales are one of many
Issues to Study:

1. Can the tunnel be structured to allow small scale (2-3 story) development on top of it?

Comments:

Opportunities for Development:
The surface and aerial options offer little or no possibility for new development on the waterfront. These options also deter property owners from developing their properties adjacent to the viaduct. This lack of investment / reinvestment will continue to make the waterfront an undesirable place for Seattle and regional citizens.

The Tunnel options could allow for limited development, and will encourage adjacent property owners to redevelop buildings to “face” the waterfront. New pedestrian oriented businesses will be encouraged where none now exist.

Pioneer Sqr.:
Tunnel Variant #1 is preferable for providing opportunity for limited development.

Central Waterfront:
Tunnel Option #4 is a good option, allowing limited development along the city edge. All tunnel options should provide a lid adjacent to Victor Steinbrueck Park and be coordinated seamlessly with the Pike Place Market PDA’s plans for the “Joe Desimone (PC-1 North) site directly south of the park.

Neighborhood Connections:

Issues to Study:

1. Can more E-W streets be reconnected in South Lake Union across Aurora?
2. Some options show new stairs at Pine and Union, are these included in the cost?
   These elements are nice but need to be designed by an urban designer / architect so they work well with the new urban design scheme (to be designed).
3. If the Bomber Air tram system (see “No Net Increase in Road Width” above) is used, or another rail trolley / tram technology or system is used can the trolley be extended to South Lake Union via Lower Queen Anne, or Broad street rather than turning east on Blanchard as shown?

Comments:

C-019-024
The Aerial alternatives create a similar or larger visual and physical barrier to the waterfront from downtown, which is a lost opportunity to reconnect the city to the water. The surface approved stormwater treatment methods that may be considered for the project.

C-019-018
Currently the majority of north-south traffic between Royal Brougham Way S. and S. Spokane Street use First Avenue S. and Fourth Avenue S. (classified as principal arterials by the City of Seattle) instead of East Marginal Way (classified as a minor arterial). Travel patterns are expected to remain similar for the year 2030 No Build, Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives.

C-019-019
The Surface, Aerial, and Bypass Tunnel Alternatives mentioned in your comment are no longer being considered.

Both the Cut-and-Cover Tunnel and Elevated Structure Alternatives evaluated in the Final EIS would reconfigure the Alaskan Way surface street and provide more space along the west side of the street. The Elevated Structure Alternative would do this by placing the northbound Alaskan Way traffic underneath the new viaduct. With the Bored Tunnel Alternative, the configuration of Alaskan Way will be determined by the Central Waterfront Project being lead by the City of Seattle. Please refer to Chapter 3 of the Final EIS for a description of the alternatives.

C-019-020
If the preferred Bored Tunnel Alternative is selected, redevelopment of the waterfront would be considered under a separate project (the Central Waterfront Project) led by the City of Seattle. With the Cut-and-Cover Alternative, the Alaskan Way surface street would continue to be above the proposed tunnel through the central waterfront. The wider pedestrian promenade, the surface street, bike lane, and street car tracks do not leave space for new development on top of the tunnel along the central
waterfront. Under the current design, the Cut-and-Cover Tunnel Alternative would include a lid structure near Pine Street, which could provide some opportunities for new development. The proposed lid would extend over the existing BNSF railroad tracks and connect Steinbrueck Park with the waterfront.

C-019-021
Two choices for improvements north of the Battery Street Tunnel were evaluated in the 2006 Supplemental EIS, the Partially Lowered Aurora option and the Lowered Aurora option.

The build alternatives analyzed in the Final EIS all include a reconfigured roadway north of the Battery Street Tunnel that includes new east-west connections across Aurora Avenue. The preferred alternative, the Bored Tunnel Alternative, would connect John, Thomas, and Harrison Streets across Aurora Avenue with signalized intersections at Denny Way and John, Thomas, and Harrison Streets.

C-019-022
The locations of the pedestrian connections between the Pike Place Market area and the waterfront are being carefully considered as part of the urban design process for the surface streets in the Alaskan Way viaduct area. The final design of Alaskan Way will be determined as part of the City of Seattle’s Central Waterfront Project.

C-019-023
The extension of the Waterfront Streetcar is not related to the purpose of this project. Therefore, it is not analyzed in the EIS.

C-019-024
Thank you for stating your preferences among the alternatives. The lead
agencies have identified the Bored Tunnel Alternative as the preferred alternative.

C-019-025
Subsequent to the issuance of the 2004 Draft EIS, project designers have examined the possibility of extending the tunnel lid to the Victor Steinbrueck Park. Two possible lid structures were evaluated in the 2006 Supplemental Draft EIS. One of these lid structures is evaluated with the Cut-and-Cover Tunnel Alternative in the Final EIS.

C-019-026
The lead agencies are committed to avoiding and minimizing adverse effects to habitat within the project area, and they are interested in enhancing or improving existing habitat, where it is feasible. The Bored Tunnel Alternative does not include replacing the seawall. However, improvements to the seawall would be individual projects led by the City of Seattle that are part of the Alaskan Way Viaduct and Seawall Replacement Program.

In general, the physical conditions in Elliott Bay, including the substantial depth and relatively steep slopes adjacent to the seawall, together with the navigational uses of the Seattle waterfront, make it impractical to gradually slope the seawall or construct it with shelves. The video survey along the shoreline demonstrates that sea life does flourish at many locations, although many species are different than would occur with a natural intertidal shoreline.

Habitat enhancement options are being considered as part of the ongoing design and environmental evaluation process to develop opportunities to improve habitat conditions for shoreline-oriented marine organisms. Where physical conditions and existing uses permit, the project may consider construction of "beach-like" settings. However, the purpose of such actions would likely be for mitigation for impacts to the
aquatic environment from the construction or operation of the project, or for habitat enhancement rather than improving access to the water.

C-019-027
The examples you provided were reviewed by project engineers and planners. A variety of measures to mitigate for visual impacts are discussed in the Final EIS Appendix D, Visual Quality Discipline Report. The piers along the waterfront will remain, and access will be provided during construction. The design aesthetics and treatment of features will be considered by the lead agencies where they are compatible with the City’s urban design goals.

C-019-028
The Olympic Sculpture Park is now an existing public park. The underpass at Broad Street that was analyzed in the Draft EIS is no longer being considered.

C-019-029
The preferred alternative proposes two portals, one south near S. Royal Brougham Way and one north near Harrison Street. The Bypass Tunnel Alternative has been dropped from further consideration. Please see the Final EIS for current information about the proposed build alternatives.

<table>
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<tr>
<th>Comments:</th>
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<tr>
<td>The Olympic Sculpture Park:</td>
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<tr>
<td>Olympic Sculpture Park will be a major tourist attraction and public amenity that should not be impacted, or compromised by this project. The Alaskan-Western tunnel at Broad will inject traffic noise and visual disruption into one of Seattle’s best opportunities for repose.</td>
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<tr>
<td>The Tunnel and Bypass Alternatives showing this option should be amended to delete this negative impact.</td>
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<tr>
<td>Portals and Mitigation:</td>
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<tr>
<td>1. Number of Portals: The number of project portals should be minimized for the tunnel options. Two is ideal, one south of King, the other emerging from Denny. The public</td>
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A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel's north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel's north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

The aesthetic design of the tunnel portals has not been established. The availability of funding may influence the ability of the project to incorporate non-essential aesthetic components to the project design, though aesthetic designs at the tunnel portals may also be implemented as a mitigation measure. Incorporation of art or other design features will be addressed as the engineering and construction plans are finalized for the preferred alternative.
The I-90 tunnel portal at Mount Baker provides one example of incorporation of art in a tunnel portal by WSDOT.
Thank you for your detailed review of the Draft EIS. We have responded to each of your detailed comments in the responses that follow with your attachment. Regarding the range of alternatives considered, the Viaduct Closed (No Build Alternative) is described in Chapter 3, Alternatives Description, of the Final EIS and is part of the analysis presented in Chapter 5, Permanent Effects. Because the project has evolved since this letter was written in 2004, please refer to the Final EIS for current information.

Mitigation measures have continued to be developed and discussed in Chapter 8 of the Final EIS. The lead agencies have provided numerous opportunities and venues for public and agency review and discussion of the project.

The Final EIS, Appendix O (Surface Water Discipline Report), and Appendix N (Wildlife, Fish, and Vegetation Discipline Report) provide updated information on how the alternatives affect Elliott Bay. The project includes several features that will help improve the health of Elliott Bay, including capturing and treating surface runoff that currently flows into the Bay without any treatment.

Although costs are an important part of project planning and decision-making, they are purposely not a major part of the environmental review process. As provided in CFR 1502.23, for purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. Overall project costs are included with the project description and are used for the analysis of economic impacts. Cost estimates for the alternatives evaluated in the Final EIS are:

- Bored Tunnel – $1.96 billion
Cut-and-Cover – $3.0 to $3.6 billion
Elevated Structure – $1.9 to $2.4 billion

These cost estimates do include different elements. The Bored Tunnel Alternative cost does not include replacing the seawall, improving the Alaskan Way surface street, or building a streetcar. Costs for the Cut-and-Cover Tunnel and Elevated Structure Alternatives do not include replacing the seawall between Union and Broad Streets.
Thank you for sharing People for Puget Sound’s vision for the waterfront. Since the Draft EIS was published in 2004, the lead agencies have been working through an extensive public process to develop and refine alternatives as part of a public dialogue that has continued since the project began. The most current information describing the project’s purpose and need, proposed alternatives, permanent and construction effects, and proposed mitigation is provided in the Final EIS.
Since this Draft EIS was published in 2004, the lead agencies have been engaged in a very public process to develop, evaluate, and refine concepts and alternatives evaluated in the Supplemental Draft EISs published in 2006 and 2010 and the Final EIS.

The preferred alternative is a Bored Tunnel Alternative, which is a variation of the ideas you suggest below. An I-5, surface, and transit concept was considered and was dropped for reasons discussed in the Final EIS.
Since the project began in 2001, several Notices of Intent have been issued in response to various changes to the project's scope. These changes in scope, have often been in response to concerns and opportunities raised by the public, agency personnel, and decision-makers, such as the Governor and Mayor of Seattle. As stated in your letter, the 2001 Notice of Intent had a broader scope than the Notice of Intent published in 2003. However, in 2008, Governor Gregoire, former Seattle Mayor Greg Nickels, and former King County Executive Ron Sims committed to a collaborative effort, called the Partnership Process. The Partnership Process looked at how improvements to the broader transportation system (including Seattle surface streets and I-5) could work with various ways to replace the viaduct. The Partnership Process occurred as part of the NEPA process for the Alaskan Way Viaduct Replacement Project as documented in a Notice of Intent published in the Federal Register on July 16, 2008.

Many of the ideas brought out by the Leadership Team outlined in your comment letter have been incorporated into the project alternatives to the extent feasible. These include developing multi-modal solutions and improving open space, public space, the waterfront, and the relationship of the City to its waterfront.
The City of Seattle, as one of the three lead agencies, has been working with the project team to comply with all of the applicable plans and policies of the City. The City's Department of Planning and Development has been working concurrently on a new Waterfront Plan that meets the various neighborhood and habitat goals. The project has focused on minimizing Puget Sound habitat impact and on protecting this valuable resource. Design modifications have been made and will continue to be made to minimize or eliminate encroachment into Puget Sound and to minimize impacts of seawall reconstruction (a project necessity) on habitat. Waterfront access has been and continues to be a major City and project team priority, both during and after construction. The project alternatives reflect the importance of the waterfront and have been designed to either remove most functional and aesthetic disruptions (tunnel alternatives), or to minimize those while still meeting current highway design standards (Elevated Structure Alternative).
other regional representatives, as well as direct Federal support. The City is committed to working cooperatively to establish such partnerships and to support approaches that can jointly address the funding requirements of the project and other regional and state transportation needs.

d. Design. Overall design should address urban design issues unique to each neighborhood, minimize adverse impacts to neighborhoods and local businesses from construction activities, and minimize environmental impacts. Priorities for the three components of the Project are as follows (these are based on current information about the components and options being analyzed, and will be further developed based on ongoing analysis):

1. South. Design should provide improved connections to SR 519, the Spokane Street Viaduct and the stadium area, as well as allowing flexibility for future redevelopment along the waterfront adjacent to Pioneer Square and the stadium area.

2. Central. To the maximum extent practicable and feasible, design should include an underground tunnel and integrated seawall replacement along the central waterfront in order to reconnect downtown neighborhoods with the waterfront and to provide opportunities for open space amenities and an improved pedestrian environment.

3. North. To the maximum extent practicable and feasible, design should include an underground tunnel with a portal north of Roy Street, allowing the surface streets in the South Lake Union/Seattle Center area to be reconnected in order to improve access and mobility, and improved connections between SR 99 and I-5.

Seattle City Council Waterfront Resolution 30664 (April 26, 2004): The City Council adopted a Resolution adopting Principles for Development of a Central Waterfront Plan which included the following Framework Principles for Development of a Central Waterfront Plan:

- Balance and Integration
- Access and Connection
- Authenticity and Identity
- Destination and Movement
- Diversity and Flexibility
- Economic Development
- Environmental Sustainability. Develop the waterfront as a model of environmental sustainability through redevelopment and public improvements that enhance marine habitat and migration, improve water and air quality, and reduce noise. Pursue "salmon-friendly" practices and improvements to enhance migratory fish routes and feeding areas.

We included the text for the Environmental Sustainability bullet to demonstrate the commitment of the City to habitat and water and air quality along the waterfront.
The Final EIS outlines the proposed mitigation measures to address project effects. Please see Chapter 8 for the mitigation discussion. Each of the Final EIS appendices contains a section that addresses mitigation for that discipline. The project’s Record of Decision also will outline the project’s mitigation measures. In some cases, specific mitigation measures will not be identified until final design of the project occurs, when the contractor knows exactly how the project will proceed. The lead agencies will mitigate for project effects as required by environmental regulations.

These construction-related costs (which are neither long-term nor environmental) were included in the project cost estimates.
Specific funding for environmental mitigation has not been developed. For a project of this size, funding will most likely come from a variety of sources. Cost estimates (which should not be confused with funding) for the mitigation measures described with the preferred alternative are included in the overall project cost estimate.

The habitat mitigation and enhancement measures provided by this project make a long-term contribution toward improvement of the marine environment for salmon and other species by improving water quality. Also, careful attention has been paid to avoid precluding habitat improvements by other projects or agencies. For example, the City of Seattle is now studying a variety of surface treatments for the seawall to see what types of features best support marine organisms. The seawall created by this project has been designed to support whatever treatments are developed by the City.

The comment is correct that several aspects of earlier proposals are not included in the Final EIS. The underpass near Broad Street was included in all 2004 Draft EIS alternatives; but upon further study, it was eliminated and replaced with connections to Elliott and Western Avenues. These ramps provide efficient connections to the Ballard-Interbay area without increasing traffic along the northern section of the central waterfront. This also avoids conflicts with train traffic.

Improvements to the West Mercer Corridor are currently under study by the City of Seattle. This is a separate project addressing different needs and is independent of the Alaskan Way Viaduct Replacement project. Both studies are being closely coordinated by the City of Seattle to ensure that proposed actions are consistent with each other. The projects are funded separately.
Regarding funding for transit improvements, the project costs do include funding for the measure cited in the comment. These types of transit improvements are a critical part of maintaining mobility while the project is under construction.

C-020-011
Traffic analyses have been updated in the 2006 and 2010 Supplemental Draft EIS and in the Final EIS. Appendix C, Transportation Discipline Report, of the Final EIS contains detailed information regarding traffic volumes and characteristic travel patterns in the corridor.

C-020-012
AM peak period traffic data has been included in the Final EIS. This provides a better understanding of what traffic conditions can be expected in the vicinity of Colman Dock. Please see Appendix C, Transportation Discipline Report, of the Final EIS for more information. Redesign of the ferry terminal at Colman Dock or related ferry queuing facilities would be led by Washington State Ferries and would not be a part of this project.

C-020-013
Thank you for your comment. The text in the Draft EIS explains possible high and low ranges for traffic volume forecasts on the viaduct and arterial streets. The high end of the range represents the maximum traffic volume that would be expected to travel along the viaduct. Additional increases in traffic along the viaduct would not be possible without first addressing capacity on facilities that connect to the corridor. In essence, upstream and downstream capacity constraints limit the amount of traffic that will be able to travel along the viaduct. The Draft EIS is not attempting to support an argument for directing capacity to side arterials but does suggest that there are upper limits to the amount
of traffic that can be expected along the viaduct in the future.

Note also that parallel arterials do not have much available capacity. Percentage increases are relative to the current amount of traffic carried by these roadways and reflects that they do not have the capacity to carry the same magnitude of traffic as does SR 99 or I-5.

An updated travel demand model has been prepared and was used for the Final EIS analysis and evaluation. The updated model results forecast lower projections of future transit ridership relative to the Draft EIS analysis. See the Transportation Discipline Report of the Final EIS (Appendix C) for more details.

C-020-014
The Alaskan Way Viaduct serves a variety of users and trip patterns. Commuters to downtown are one of many user groups. The daily volumes shown in the updated Transportation Discipline Report (Appendix C) of the Final EIS include all trip types that would be made during the AM and PM peak hours, including commuters, non-work trips (shopping, school, etc.), and commercial trips (freight, delivery). Additionally, the viaduct carries both trips destined to downtown as well as trips between areas located on either side of downtown. In total, the viaduct carries about 20 percent of all north-south traffic traveling in central Seattle. The Final EIS Appendix C, Transportation Discipline Report, includes information regarding travel demand and travel patterns for the Alaskan Way Viaduct.

C-020-015
The lead agencies agree that maintaining freight mobility is vitally important for the region and have coordinated extensively with the Port of Seattle. Project design for each build alternative has considered freight mobility. Please see the Final EIS for current information about the proposed build alternatives and their potential effects on freight.
Since the Draft EIS was published in 2004, the transportation planning effort for construction has been greatly expanded. Updated information on proposed traffic mitigation strategies can be found in Appendix C, Transportation Discipline Report, of the Final EIS.

Typically, project costs are not included in environmental documents. We suggest you consult the project website (http://www.wsdot.wa.gov/projects/Viaduct/) for more information about project costs.

Existing conditions for the project do not include shoreline habitat prior to urban development. Urban development in the area removed natural shoreline habitat conditions by the early 1900s. The EIS process assesses potential changes to existing conditions and the cumulative effects of the project when added to other past, present, and reasonable foreseeable future projects. This project is not intended to restore the shoreline habitat of the Seattle waterfront, although habitat enhancement and mitigation are being considered as part of the design and environmental review process.

The desirability of restoring natural shoreline habitat was not identified as controversial, because there is a general desire by the lead agencies to enhance habitat conditions where feasible and appropriate. However, there are limited areas along the Seattle central waterfront to accommodate such natural habitat configurations. In addition, the project has also been redesigned, based on comments received throughout the NEPA process, to minimize the potential effects of the project on the marine environment, thereby potentially reducing the need for compensatory mitigation for project effects.
The statements referred to in the Draft EIS are intended to provide background information on Chinook salmon likely to be present along the Seattle shoreline in order to clarify the issues, not to minimize the importance of Puget Sound shoreline habitat.

The Duwamish-Green River Chinook salmon stock has the highest rates of return of the various stocks within the Puget Sound Chinook salmon ESU (Weitkamp and Ruggerone 2000), indicating that it is less likely to go extinct in the next 200 years than Chinook salmon reproducing in other Puget Sound watersheds. While the nearshore environment is an important transition phase for Chinook and other salmonids, there are many other environmental conditions that affect their survival and the number of returning fish. The preferred alternative, which is the Bored Tunnel Alternative, minimizes effects to the shoreline habitat. Please see the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for current project information.

Species identified in the available literature and from surveys conducted along the waterfront have been updated and are included in the Final EIS. However, actual counts of fish included in these reports are not included in the EIS, as they were typically collected for purposes other than estimating population sizes or relative abundance.

Salmon produced in Longfellow Creek are not specifically mentioned because this stream is a tributary of the Duwamish-Green River, for which salmon are discussed as a whole. The identified alternatives would neither alter habitat conditions or salmon production in Longfellow Creek nor only affect fish for this creek. The use of the Seattle waterfront by salmonids from areas other than the Duwamish-Green drainage is addressed in Appendix N, Wildlife, Fish, and Vegetation Discipline Report.
This statement in the EIS provides information on the drainage area within a discussion of existing water quality conditions in the Duwamish River, Elliott Bay, and Lake Union. This section is not intended to address shoreline habitat or its significance. Please see the Final EIS for an updated discussion about the existing conditions of the shoreline habitat in the project area.

The lead agencies agree that it is desirable to plant native vegetation where practical; however, no upland habitat restoration or enhancement is currently included in the project, and most vegetation planted as part of the project will be ornamental. Plant species will likely be selected for properties such as form, color, flowers, and height/spread at maturity that is appropriate to the needs of specific environments. Plants will also be selected as part of the city's ongoing effort to create sustainable landscapes, with emphasis on low water use, tolerance for urban conditions, and ability to provide environmental benefit, such as shading. Many native plants possess these qualities, and they will be considered as part of the project's ongoing urban design process.

Your support of tribal protection for water and fisheries resources is acknowledged. The project has and will continue to consult with the interested tribes about cultural resource issues and natural resource issues.

The project no longer proposes to construct a permanent 33,000-square-foot pier near Pier 48.
The preferred alternative analyzed in the Final EIS has an alignment to the east and eliminates the need to remove habitat from Elliott Bay.

C-020-024

The construction of fish passage facilities at Howard Hanson Dam is an independent action that would provide access to additional anadromous salmonid habitat within the Duwamish-Green River basin. The additional spawning and early rearing habitat may increase the number of juvenile anadromous salmonids produced in the river system and therefore the number using Puget Sound shorelines, including Elliott Bay.

The Seattle waterfront is unlikely to provide habitat of particular importance to bull trout, particularly along the vertical seawall. Anadromous bull trout in Puget Sound appear to congregate where forage fish are available. These areas include eelgrass beds and upper intertidal sandy beaches where the forage fish spawn. No habitat of this nature currently exists, or is likely to be constructed in the future, along the Seattle waterfront where the vertical seawall is present. However, other portions of the Elliott Bay shoreline currently provide or could provide these desirable habitat characteristics, and they present habitat restoration or mitigation opportunities for this project and other actions in the area. With the preferred Bored Tunnel Alternative, the replacement of the seawall is being addressed by the separate Elliott Bay Seawall Project being led by the City of Seattle.

C-020-025

The purpose and need statement has been updated since the publication of the Draft EIS in 2004. The revised purpose for the project is to provide a replacement transportation facility that, among other things, meets current seismic standards and improves traffic safety. As such, the primary purpose of the project is related to providing a safe transportation facility. However, the purpose and need statement in no way precludes enhancing habitat as part of the project. Habitat
enhancements have been considered throughout the life of the project for the build alternatives that would include replacement of the seawall, and the lead agencies have involved and included resource agency staff in project discussions since the project began in 2001. Resource agencies have been involved in developing and approving the project’s purpose and need statement, reviewing the alternatives, and approving proposed habitat mitigation and enhancement measures for the project.

C-020-026
This comment is not a correct characterization of the alternatives assessed in the 2004 Draft EIS. Four of the five alternatives assessed increase the amount of aquatic habitat along the Elliott Bay shoreline. Only the Bypass Tunnel Alternative resulted any loss of Elliott Bay habitat (1,549 square feet). All existing shoreline habitat in the project area is highly modified concrete, steel, Ekki wood seawall, riprap, or dredged waterway. Most alternatives discussed in the 2004 Draft EIS actually produce a substantial increase in the quantity of aquatic habitat. Only alternatives that include construction seaward of the existing seawall result in the loss of habitat, primarily in the small area between Pier 48 and Colman Dock. However, based on comments received on the 2004 Draft EIS and the 2006 and 2010 Supplemental Draft EISs, the alternatives assessed in the Final EIS (including the preferred alternative) eliminate in-water construction activities that would result in the permanent loss of shallow water habitat in the area.

The preferred alternative in the Final EIS, the Bored Tunnel Alternative, does not include replacement of the seawall. If the preferred alternative is selected, the seawall would be replaced under a separate project, the Elliott Bay Seawall Project, led by the City of Seattle. If another build alternative is selected, the seawall would be replaced as part of that alternative. See the Final EIS for current information about the proposed seawall design for the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative.
Endangered Species Act (ESA) documentation, including Biological Assessments, become available to the public following completion of the Section 7 ESA consultation process. ESA documents are not part of the NEPA documentation, and thus they are not distributed to the public in the same manner. If you would like to request a copy of the Biological Assessment, please contact the project office. Final EIS Appendix U, Correspondence, includes the Biological Opinion letter from the National Marine Fisheries Service and ESA consultation letter from the U.S. Department of the Interior, Washington Fish and Wildlife Office.

The preferred Bored Tunnel Alternative does not include the replacement of the seawall. If selected, replacement of the seawall would occur under the separate Elliott Bay Seawall Project led by the City of Seattle. With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the seawall would be replaced as part of the project.

The habitat characteristics discussed in the 2004 Draft EIS Appendix R are simply general habitat characteristics likely to be employed in developing habitat mitigation and enhancement and not intended to be specific proposals. However, Attachment D to Appendix R listed conceptual alternatives previously identified for habitat improvement through the environmental analysis.

The proposed build alternatives have been modified since the publication of the 2004 Draft EIS to further minimize effects to aquatic habitat. Please see the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for current information about potential project effects on aquatic habitat and proposed mitigation measures.
The preferred alternative does not include the replacement of the seawall. However, for the other build alternatives, the seawall replacement portion of the project is located outside the Duwamish River estuary; therefore, it does not specifically address habitat restoration needs in the Duwamish River estuary.

The effects of the project build alternatives were evaluated based on changes from existing habitat conditions and not based on differences from historic conditions. The unfavorable Seattle waterfront conditions identified in this comment have been used by juvenile salmon for nearly 100 years and are the result of extensive commercial uses of the waterfront. While it is desirable to improve the habitat conditions in the area, the Alaskan Way Viaduct Replacement Project will not result in altering the primary commercial focus of the Seattle waterfront. The potential effects of the project, especially with the preferred alternative, do not warrant mitigation levels that would approach reversing the habitat losses resulting from previous habitat modification projects in the area. Habitat restoration and mitigation measures for the preferred alternative are provided in Appendix N, Wildlife, Fish, and Vegetation Discipline Report, of the Final EIS.

The preferred alternative does not include the replacement of the seawall. However, the seawall would be replaced with the Cut-and-Cover Tunnel Alternative or the Elevated Structure Alternative. The project alternatives have evolved since the publication of the Draft EIS in 2004. See the Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, for current information about seawall construction.

Specific mitigation and habitat enhancement options will be identified
through additional agency coordination, the evaluation of potential project effects, and development of the project design.

**C-020-032**

Additional measures would be required to provide stability and support of the existing seawall during construction. These measures could be external bracing and a prescribed wall construction that supports the existing wall. See Appendix B, Alternatives Description and Construction Methods Discipline Report, of the Final EIS for current seawall construction information for the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative. The Bored Tunnel Alternative, which is the preferred alternative, would not replace the seawall.

**C-020-033**

Thank you for these suggestions. The project team biologists and engineers have considered these suggestions for increasing habitat value and functions along the seawall in the design process. These concepts were also incorporated into the discussions with the resource agencies and other interested parties for developing the mitigation measures (see Chapter 8 of the Final EIS). Note that since the publication of the 2004 Draft EIS, the lead agencies have refined the proposed build alternatives to greatly minimize effects on shoreline habitat. The proposed mitigation measures reflect this reduced level of effect.

**C-020-034**

The Final EIS Appendix O, Surface Water Discipline Report, includes the impaired water bodies in the study area that are listed in Ecology's 2008 Washington State's Water Quality Assessment [303(d)]. Nearshore sediments and sediment quality in Elliott Bay are described in Chapter 4 of Final EIS Appendix O. All of the alternative would potentially result in a benefit to surface water and sediment quality in the study area receiving
waters because they would decrease the pollutant load relative to existing conditions.

**C-020-035**
Shallow groundwater would flow laterally along the grouted portions of the seawall to areas where groundwater can discharge into Elliott Bay. Deeper groundwater would flow in a similar manner or, if the soil conditions allow, flow underneath the grouted portions and flow into Elliott Bay.

**C-020-036**
Please note that seawall replacement is not part of the preferred Bored Tunnel Alternative. Where seawall replacement is required for the project and in areas with grouting, it is possible some gaps and irregularities may occur. The extent of such gaps will be determined during test sections and during construction monitoring. Based on this information, the construction methods will be adjusted to meet design criteria for seawall stability. Potential for grout flow into Elliott Bay could be mitigated by:

1. Use of directional grout nozzles in areas adjacent to the seawall.
2. Use of appropriate setback from seawall.
3. Sealing of known seawall defects and utility penetrations.
4. Use of sheeting and/or silt curtains to contain potential grout flow.

**C-020-037**
WSDOT’s Environmental Procedures Manual was used for the pollutant loading analysis. This method evaluates loads for TSS, Total Copper, Dissolved Copper, Total Zinc, and Dissolved Zinc, because they are representative of pollutants found in stormwater runoff. Phthalates were not evaluated for the Final EIS.
C-020-038
WSDOT's Environmental Procedures Manual was used for the pollutant loading analysis. This method evaluates loads for TSS, total copper, dissolved copper, total zinc, and dissolved zinc, because they are representative of pollutants found in stormwater runoff. PAHs were not specifically evaluated for the Final EIS.

Polycyclic aromatic hydrocarbons (PAHs) that settle on the roadway from atmospheric deposition may become part of stormwater runoff. However, in a study conducted by Caltrans, PAHs were a low monitoring priority because they were either never detected or had an estimated percent exceedance with California standards of <0.01% in untreated stormwater (http://www.dot.ca.gov/hq/env/stormwater/special/newsetup/_pdfs/new_techology/CTSW-RT-01-050.pdf).

PAHs that become part of runoff are expected to adsorb to suspended solids and sediment. In general, PAHs with higher molecular weights are almost completely adsorbed onto fine particles and are expected to be immobile in soil. BMPs that filter or settle out particulate matter may be effective at removing PAHs from runoff.

C-020-039
Stormwater will be managed in accordance with the applicable stormwater management regulations as described in the Final EIS. Specific BMPs will be identified during the design phase of the project.

C-020-040
There are very limited opportunities in the tightly constrained corridor where construction staging can be located. Please see Chapter 3 in the Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, for a description of the proposed construction staging areas for the build alternatives. Most of the staging areas and
activities will not be overwater; however, for all of the build alternatives there may be some activities that occur overwater such as storing construction materials on Pier 48 and loading excavated material onto barges at Terminal 46. Permits would be required for any overwater areas, and the responsible agencies would require mitigation, such as construction debris or sediment containment methods, to avoid potential effects to water quality.

C-020-041
A treatment facility at Royal Brougham Way S. is not proposed as part of this project. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

C-020-042
Where the project build alternatives involve the potential disturbance of contaminated sediment, appropriate best management practices will be implemented to minimize the potential effects on aquatic species. The improvements to stormwater treatment proposed with the project will improve general water quality conditions in Elliott Bay by further reducing contaminants discharged to the bay.

C-020-043
A treatment facility at Royal Brougham Way S. is not proposed as part of this project. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach...
presented in the 2004 Draft EIS.

Specific BMPs will not be determined until later in the design and permitting process. Both the WSDOT and Ecology Manuals have several BMPs that meet the requirements of Basic Treatment; however, wet vaults and StormFilters(TM) are the most feasible options due to space and engineering constraints. In addition to basic treatment, oil control will also be provided along Alaskan Way between King and Yesler Streets because of the predicted ADTs (Average Daily Traffic volumes).

C-020-044
Construction impacts were the major topics of discussion with the community service organizations. The Social Discipline Report, Appendix H of the Final EIS, concludes that there is the potential for disturbance impacts, such as noise, on nearby residents, but that these do not appear substantially adverse. The project will continue its coordination with these organizations throughout construction.

As this comment requests, Appendix I and Appendix J of the 2004 Draft EIS were combined into one discipline report for the Final EIS. This appendix is Appendix H, Social Discipline Report, mentioned previously in this response.

C-020-045
The nature of populations along the project corridor is discussed in the Final EIS Appendix H, Social Discipline Report, and information on Mobile Source Air Toxics is provided in Appendix M, Air Discipline Report. Both low-income and minority populations are present, and potential effects on these populations have been considered. In the Final EIS, Chapter 5 discusses permanent effects and Chapter 6 discusses construction effects for low-income and minority populations as well as for air quality.
C-020-046
The project has worked closely with the City of Seattle as one of the project's lead agencies, and recognizes that a quality pedestrian environment is one of the major objectives of the City of Seattle's waterfront planning initiative, which is an ongoing effort.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel's north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

C-020-047
Meeting the City of Seattle goals for parks and open space is outside of the scope of this project. The Alaskan Way Viaduct Replacement Project does not include specific plans for new park and recreation facilities or specific waterfront amenities, because the purpose of the project is first to provide a transportation facility with improved earthquake resistance.

The Final EIS and Appendix H, Social Discipline Report, discuss the existing park and recreation facilities and assess the potential impacts of the alternatives on existing facilities in the project vicinity. With the preferred alternative, the Bored Tunnel Alternative, the exact configuration and types of activities provided on the waterfront will be decided over the next several years by the City-led Central Waterfront Project.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative would remove the elevated viaduct structure and result in less noise along the waterfront corridor.

Also, to reduce construction noise at nearby receptors, mitigation measures such as those discussed in the Final EIS Appendix F, Noise Discipline Report, would be incorporated into construction plans, contractor specifications, and variance requirements.

The Final EIS includes the maximum 1-hour CO concentration near the tunnel portals and tunnel operations buildings, which include the ventilation stacks, for the build alternatives.

"12 feet above the 30 feet high ventilation buildings" refers to the results of the ventilation stack analysis, which is that air quality standards would not be exceeded at any ground level or elevated receptor sites, as long as the exhaust air is released from a height that is at least 12 feet above the roofs of the (30-foot-tall) ventilation buildings. This analysis was conducted to determine minimum stack height requirements.

The analysis of energy consumption focuses on the amount of energy that would be consumed during construction and operation of the build alternatives. However, some of the key considerations of the lead agencies when identifying the preferred alternative were the degree to which the build alternatives would provide opportunities to minimize or eliminate effects to the human and natural environment.

The lead agencies will encourage the contractor to use low- or ultralow-
sulfur fuels in construction equipment. Please see Chapter 8 of the Final EIS for the proposed mitigation measures to reduce effects on air quality during project construction.

C-020-052
This proposed build alternatives do not propose to add capacity to the existing SR 99 corridor. Current information about the build alternatives and how they would operate is provided in the Final EIS. Transportation study and planning for how commuters from the suburbs enter downtown is outside the scope of the Alaskan Way Viaduct Replacement Project.

C-020-053
Making transportation affordable and maintaining mobility effectively is a priority for the lead agencies.

C-020-054
With the Cut-and-Cover Tunnel or Elevated Structure Alternatives, the lead agencies would improve and enhance habitat where practicable and feasible along the new seawall. With the preferred Bored Tunnel Alternative, the seawall would be replaced by a separate project (Elliott Bay Seawall Project) led by the City of Seattle. The lead agencies recognize that habitat mitigation and enhancement measures make a long-term contribution toward improvement of the marine environment.
An EIS evaluates alternatives for their ability to accomplish a project's purpose. This project's purpose includes protecting public safety and providing sufficient capacity to efficiently move people and goods to and through downtown Seattle. In addition to the alternatives presented in the 2004 Draft EIS, the 2006 Supplemental Draft EIS evaluated the revised Tunnel and Elevated Structure Alternatives and the 2010 Supplemental Draft EIS evaluated the Bored Tunnel Alternative. Improvements made to accomodate transit, freight, and traffic on the downtown street grid during construction have been studied as described in the Final EIS Appendix C, Transportation Discipline Report. Many of these improvements would remain in place once construction is completed. The alternative you suggest for the central waterfront and larger transportation system has been considered and does not address the need for improvements or the purpose of this project. The lead agencies developed this propose and need after listening to public comments following the Nisqually earthquake in 2001 and most recently revised it following the Partnership Process in 2007.

The City of Seattle is one of the three lead agencies for this project, as well as being responsible for planning regulation of uses along the Central Waterfront. As a lead agency, the City supports the project's purpose to provide a replacement transportation facility. The City has also integrated planning and design on this project with the Central Waterfront Project. In short, neither effort has been rushed or moved ahead without careful analysis. The build alternatives carried forward are those that meet the project's purpose.
The Bored Tunnel Alternative, which is the preferred alternative, is independent of seawall replacement. The City of Seattle recognizes the vulnerability of the Elliott Bay Seawall and is pursuing its replacement as an independent project with the Army Corps of Engineers. If one of the other build alternatives is selected, the seawall would be replaced as part of the alternative.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

It is acknowledged that direct traffic impacts could result in secondary economic impacts to the businesses along the corridor by decreasing the number of customers willing to patronize those businesses.

Impacts on tourist-dependent areas (Pioneer Square, Central Waterfront, Pikes Place Market, Seattle Center) vary between the build alternatives. Economic impacts to these tourist-dependent areas are a serious project consideration during construction. The Final EIS presents economic mitigation strategies developed from evaluating the use and success of these strategies on other projects of similar size and complexity.
Building a temporary structure on the waterfront during construction is no longer being considered.

For the preferred Bored Tunnel Alternative, the north portal is located at Thomas Street, well north of the Pike Place Market. See the Final EIS for the current alignments of the proposed build alternatives.

The south portal for the preferred alternative would be located near S. Dearborn Street. The south portal would not be expected to physically or visually separate Pioneer Square and the waterfront. Please see Final EIS Appendix E, Visual Simulations, which will show you how the alternatives could look.

The preferred Bored Tunnel Alternative would not have this aerial structure. Also, the design for the Cut-and-Cover Tunnel Alternative has been revised to remove this aerial structure. This alternative now proposes that between Lenora Street and the Battery Street Tunnel, SR 99 would travel in a new lowered roadway (retained cut) section with overpasses at Elliott and Western Avenues and at the Bell Street intersection.

The purpose of the project is to provide a replacement transportation facility. However, the Alaskan Way Viaduct Replacement Project has been coordinating with the City of Seattle’s waterfront planning efforts to design the Alaskan Way surface street. For the Bored Tunnel Alternative, the City will lead planning and design of the central waterfront via the Central Waterfront Project.
C-021-011
The Surface Alternative has been eliminated from further consideration as explained in the 2010 Supplemental Draft EIS and the Final EIS because it does not meet the project's purpose and need to provide capacity to and through downtown Seattle. The project has evolved since 2004. Please see the Final EIS for current information about the proposed build alternatives.

C-021-012
The project and the proposed build alternatives have changed substantially since this comment letter was submitted in 2004. Please see the Final EIS for updated information. The preferred alternative, the Bored Tunnel, does not replace the seawall. The Cut-and-Cover Tunnel and Elevated Structure Alternatives do propose to replace the seawall. An updated description of these proposed improvements, their effects, and proposed mitigation is contained in the Final EIS.

C-021-013
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.

C-021-014
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

Replacing the Elliott Bay Seawall would be a separate project if the Bored Tunnel Alternative is selected, because the failing seawall does not have the potential to affect the seismic stability of this alignment. For the other build alternatives (Cut-and-Cover Tunnel and Elevated Structure Alternatives) evaluated in the Final EIS, the seawall replacement is included in the project because its seismic instability threatens the seismic safety of the viaduct and its foundations. Replacing
the seawall for these alternatives will also provide a solid foundation for the design alternative. The seawall is necessary not only to the safety and stability of the viaduct structure but also to protect the waterfront resources and the economic resources and functions that line Seattle’s waterfront, including the Port of Seattle’s marine container terminal operations, the Seattle Ferry Terminal, and other marine dependent commercial interests.

Please see Chapter 3 in the Final EIS for a description of the current configuration for each alternative in the project area.
The lead agencies appreciate the community's interest in the project and their comments on the Draft EIS.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

The total construction duration for the Bored Tunnel Alternative is 5.4 years. At the end of Traffic Stage 7, up to a 3-week closure would be needed to connect SR 99 to the bored tunnel.

The total construction duration for the Cut-and-Cover Tunnel Alternative is 8.75 years. The construction plan for the Cut-and-Cover Tunnel Alternative would close SR 99 to all traffic for 3.25 years (39 months) between S. Royal Brougham Way and Denny Way. The Alaskan Way surface street would also be closed to north-south traffic during construction.
The total construction duration for the Elevated Structure Alternative is 10.0 years. The Elevated Structure Alternative’s construction plan would completely close SR 99 to all traffic for 2 to 4 months in Traffic Stage 4 and for 3 months in Traffic Stage 7. SR 99 will be restricted to two lanes in each direction throughout the construction period. The Alaskan Way surface street would maintain one lane in each direction by transitioning temporary detour alignments along the corridor as needed.

C-022-002
The duration and magnitude of construction-related traffic impacts is more thoroughly discussed in the Transportation Discipline Report, Appendix C of the Final EIS, and it provides a general discussion of how traffic will be diverted with each of the project alternatives. This evaluation further defines and identifies traffic impacts on surface streets, in terms of potential traffic volumes and congestion levels, within the downtown core and in neighboring areas such as Pioneer Square, Belltown, and the Stadium district (among others).

C-022-003
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and
Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

C-022-004
See Appendix L, Economics Discipline Report, of the Final EIS for the current analysis of economic effects during project construction for each proposed build alternative.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

C-022-005
The project, proposed build alternatives, and effects have changed substantially since this comment was received. Please see the Final EIS for updated information.
The lead agencies use several communication and public involvement tools (outlined in Appendix A, Public Involvement Discipline Report, of the Final EIS) to gather input and help shape the project throughout design and construction. There are opportunities to attend public meetings and community events to learn more about the project and multiple ways to contact the project team with any questions or concerns including a hotline (1-888-AWV-LINE) or e-mail (viaduct@wsdot.wa.gov).

In addition, many forums are in place to provide feedback to the project team:

- North and south portal working groups have been meeting since May 2009, and they do not have a firm end date.
- Maintenance of traffic meeting in the south end discusses upcoming construction and potential traffic impacts. This includes stakeholders as well as the contractor and staff from the project office.
- Construction outreach tools, such as distributing (often in person) notices to adjacent businesses and residents about upcoming work, regular construction reports on the website, and e-mail updates.
- Other resources: 24-hour hotline, the website, viaduct e-mail for comments or questions, community briefings, information booths, and community events.

Many of these tools are used as opportunities to have dialogue or discuss any issues with stakeholders or neighbors.

Construction of the project will require nighttime construction activities, and the City requires a Major Public Project Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance. The Major Public Project Noise Variance...
will be presented for public comment. Mitigation measures are described in Chapter 8 of the Final EIS and Appendix F, Noise Discipline Report.

C-023-003

Transportation planning for the construction period is ongoing, but analysis of the various detour proposals indicates that generally the largest traffic increases on Western Avenue are forecasted to occur north and/or south of the Pike Place market area. The project team is aware of the sensitivity of the market area to increased traffic.

C-023-004

WSDOT is currently preparing a claims process that would address any damage to property directly related to the preferred Bored Tunnel Alternative. This information will be given to individual property owners that may be affected by the project.

WSDOT plans to install an array of monitoring equipment to alert the construction team of any settlement which would be used in the claims process.

If another alternative is selected, a claims process would be developed specifically for that alternative.

C-023-005

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery
companies, the Port of Seattle, neighborhood groups, and other affected groups.

C-023-006
The Final EIS and Appendix M, Air Quality Discipline Report, discuss mitigation measures during construction. A Memorandum of Agreement between WSDOT and PSCEA is in place to help eliminate, confine, or reduce construction-related emissions for WSDOT projects. WSDOT will create a plan for controlling fugitive dust during construction. This fugitive dust control plan would reduce air pollutant emissions near the construction site, including near residences located along Battery Street adjacent to the open grates.

C-023-007
As mentioned above, the lead agencies plan to maintain access to businesses during construction. Economic mitigation measures for non-access types of impacts to businesses during construction are discussed in Chapter 8 of the Final EIS.

C-023-008
An exhaust stack near Pike Place Market is no longer included in any of the alternatives. The preferred Bored Tunnel Alternative would have two tunnel operations buildings that include exhaust stacks. One building would be located in the south portal area near Alaskan Way S. and Railroad Way S., and a second building would be located in the north portal area near Sixth Avenue and Harrison Street.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. Several elements you mention are part of the purpose and need of the project. The preferred Bored Tunnel Alternative will improve safety and provide sufficient capacity to efficiently move people and goods to and through downtown Seattle. Because the project has evolved since 2004, please refer to the Final EIS for updated information. The preferred Bored Tunnel Alternative would remove the Elliott and Western ramps. The connection between Alaskan Way and Elliott and Western Avenues would be constructed as a separate project led by the City of Seattle. The Cut-and-Cover Tunnel and Elevated Structure Alternatives would include ramps between SR 99 and Elliott and Western Avenues.
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.
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C-033-001

As a board member of CASA Latina since 1997 and a Seattle resident, my main concerns are with the impact that this project will have on the Day Worker Center in the Belltown neighborhood run by CASA Latina. I would like to see two things: (1) Assistance in relocating the Day Worker Center to a site in the free bus zone or the Sodo neighborhood. Day workers have been coming to the area where the Day Worker Center is for decades, and considerations for them and their employers should be taken into account. Given that many workers are low income and often live in the downtown shelters, a new site in the free bus zone is ideal. (2) Serious consideration of the laborers in the Day Worker Center for projects and contracts associated with the building of the new Viaduct project.

Comments apply to:
Construction Impacts and Mitigation
The lead agencies have coordinated extensively with the Port of Seattle throughout the alternative development process. The Port of Seattle has included Terminal 46 in their list of Port properties where access and function must be protected as a key container terminal facility. The lead agencies recognize the need to maintain access to the railyards and all rail operations as well as the regional highway system.

As design and construction sequencing proceeds, the lead agencies will work closely with the Port of Seattle to identify any necessary staging areas, negotiate any needed construction easements, and minimize impacts to Port facilities.

C-034-001

We feel first and foremost that the most important thing to consider is to keep the present access level to container Terminal #46 during and after construction.

Terminal #46 is one of the main three (3) terminals in the Port of Seattle that drives the economic engine of the state and of the nation.

Whichever alternative is picked, Terminal #46 must remain a viable working container terminal. It would be ideal if on the south end, E. Marginal Way could be moved to the East and Terminals 25 & 30 could be fully utilized as container terminals, and have direct access to the S.I.G. intermodal yard.

The ILWU feels that the WSDOT, FHWA and SDOT have a great opportunity to keep the Port of Seattle a gateway to the world.

The Pacific Maritime Association estimates cargo will double through the West Coast by 2015, and the Port of Seattle is in position to prosper if we plan for the future.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Transporting flammable or hazardous materials would be prohibited in the bored tunnel all day. Operators hauling these types of materials would need to use I-5 or Alaskan Way.

The lead agencies are committed to working with the freight community to define alternative routes and appropriate mitigation during the construction period.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed...
for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

The construction sequences and durations proposed in the Final EIS have considered the duration of construction and resulting impacts along with available funding and the need to maintain access.

Economic mitigation strategies for non-access types of impacts to businesses during construction are presented in Chapter 8 of the Final EIS.

With the preferred Bored Tunnel Alternative, the City of Seattle will lead the waterfront development effort with the Central Waterfront Project.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Both the Bypass Tunnel and the Surface Alternative have been eliminated from further consideration. The project has evolved since the publication of the Draft EIS in 2004. Please see the Final EIS for current information about the proposed build alternatives for this project.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city's parking resources. SDOT's studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
• Provide alternate opportunities to facilitate commercial loading activities
• Develop a Center City parking marketing program
• Use existing and new social media and blog outlets to provide frequent parking updates
• Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

C-036-003
The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

C-036-004
A Programmatic Agreement is required by the State Historic Preservation Office. This agreement is signed by the three lead agencies (City of Seattle, WSDOT, and FHWA), along with the State’s Office of Architecture and Historic Preservation. The Programmatic Agreement identifies the responsible parties for compliance with the mitigation measures set forth in the Agreement. This means that the City and the
State are reviewing the construction process to ensure that no damage to historic buildings occurs.

The City of Seattle will likely require monitoring of construction near the City's historic buildings and areaways to ensure that vibration or other potential construction impacts are not causing deleterious effects to these structures. Other potential mitigation measures are listed and described in the Final EIS and in Appendix I, Historic, Cultural, and Archaeological Resources Discipline Report.

**C-036-005**
The preferred Bored Tunnel Alternative would not affect the Washington Street Boat Landing and would not alter the configuration of Alaskan Way. Under this alternative, the waterfront planning process would be led by the City of Seattle under the Central Waterfront Project. The Central Waterfront Project would address any improvements to the waterfront as mentioned in this comment.

The Cut-and-Cover Tunnel Alternative would have a pedestrian and bike trail on the west side, called the Port Side Pedestrian/Bike Trail, and a minimum 25-foot-wide multi-use path, called the City Side Trail, on the east side.

The Elevated Structure Alternative would provide a shared use path for pedestrians and bicyclists starting at S. King Street. This path would transition from the west side of the ferry queuing lanes to the west side of the surface street, where the bicyclists and pedestrians would be separated. Pedestrians would use a 9-foot-wide sidewalk next to Alaskan Way, and bicyclists would use a 10-foot-wide path along the west side of the sidewalk. From S. Washington Street north, a 20-foot-wide promenade would run between the west side of the bicycle lane and the waterfront, and the bike lane would widen to 12 feet. On the east side of the surface street, the sidewalk would widen into a combined
sidewalk/landscape area ranging in width from 34 to 50 feet. North of S. Jackson Street, the outside street lanes would widen to about 14 feet to accommodate bicycle traffic.
It is recognized that businesses and residents in Pioneer Square rely on the short-term and long-term parking in the area. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement are described in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report.

Occidental Avenue between S. Washington Street and S. Main Street is currently closed to traffic and used as part of Occidental Park. While this portion of Occidental Avenue is still designated as a street by the City of Seattle, it is unlikely that the City will restore the street for through traffic.
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

Many of these options were looked at during the initial phases of the project's screening process. The screening process involved early analysis by the project team and discussions with community groups at more than 140 community meetings and community interviews, including businesses along the corridor. A total of 76 initial viaduct replacement concepts and seven seawall concepts were considered, and concepts that were not feasible, or were outside the purpose of the project, were dropped from further consideration. The most workable ideas were shaped into the five alternatives analyzed in the 2004 Draft EIS. These
five alternatives included a range of viaduct repair and replacement designs with some elements of earlier concepts combined with other design structures as the engineering team looked at feasibility, cost, and other criteria. The project has evolved and the alternatives further refined since comments were submitted in 2004. Please refer to the Final EIS for current information.

The Alaskan Way Viaduct Replacement Project is unable to fund improvements to other transportation systems that are independent of this project, such as the rail system, Link light rail, Sound Transit, or the monorail, but the project has coordinated continuously with the other transportation agencies in the region.
C-039-001

The purpose of the project includes providing a facility that has sufficient capacity to efficiently move people and goods to and through downtown Seattle. Since the project has evolved, please see the Final EIS for current project information.

C-039-002

Yes, there are substantial construction impacts relating both to the lengthy duration of the construction period, as well as construction-related impacts in terms of noise, vibration, business and economic, visual quality, utility relocation, and particularly, traffic and transportation services, locally and regionally.

Discussion of these impacts as well as potential construction mitigation can be found in the Final EIS and in each of the individual discipline reports, which are appendices to the Final EIS.

C-039-003

If the preferred Bored Tunnel Alternative is selected, the exact configuration and types of activities on the waterfront will be decided by the Central Waterfront Project led by the City of Seattle. There will be many opportunities for the public to participate in that master planning effort and to determine the future of their waterfront. Please note that the Seattle Ferry Terminal Project is a separate project led by the Washington State Ferries and will have its own environmental process. However, the Alaskan Way Viaduct Replacement Project has coordinated with this project as necessary.
After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.

Traffic will be dispersed along city streets and I-5 depending on the alternative selected.

With the preferred Bored Tunnel Alternative, the Battery Street Tunnel would be decommissioned. With the Elevated Structure Alternative or Cut-and-Cover Tunnel Alternative, the Battery Street Tunnel would be upgraded with safety improvements. Please see the Final EIS for the current construction durations for each build alternative.
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

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Alaskan Way Viaduct and Seawall Replacement Project

Draft EIS Comment Form

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

Contact Information: 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 below.

Name: ________________________________________________________________

Organization/Membership Affiliation (optional): ________________________________

Address: ______________________________________________________________

City: __________________ State: ___________ Zip: __________________

E-mail: ________________________________________________________________

☐ Check here if you would like to be added to the project mailing list.

1. Choose a topic:
☐ Overall Project  ☐ Tunnel Alternative  ☐ Construction Impacts and Mitigation
☐ All of the Alternatives ☐ Bypass Tunnel Alternative  ☐ Other
☐ Rebuild Alternative  ☐ Surface Alternative
☐ Aerial Alternative  ☐ Seawall

What are your comments about the project?:

2) Ensure the the contractor hired for this major project has a commitment to working with and hiring Latino day laborers.

(Please use additional paper if you need further comment space)
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.
More detailed construction-related traffic impacts and mitigation measures on parallel facilities to the Alaskan Way Viaduct (such as Alaskan Way, Western Avenue, First Avenue, etc.) are included in Appendix C, Transportation Discipline Report, of the Final EIS. Additionally, the project team will be working specifically with residents and businesses in communities adjacent to the construction zone to address their concerns regarding diverted through-traffic and construction traffic impacts as construction phasing and staging plans are developed for the alternatives.

Chapter 3 of the Final EIS describes the public process the project will follow to move the project forward. FHWA, WSDOT, and the City of Seattle have provided many opportunities for additional public discussion between the time the 2004 Draft EIS was published and the Final EIS.
A detailed analysis of construction-related transportation effects is provided in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. Among other things, the analysis covers travel times, intersection operations, and freight mobility for trips traveling through the project area.

An updated analysis of construction-related transportation effects is provided in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report.

Construction expenditures would occur over a number of years, directly resulting in new demand for construction materials and labor. These direct effects would lead to indirect or secondary effects, as the production of output by firms in other industries increases to supply the demand for inputs to the construction industry. Both the direct and indirect effects of construction expenditures typically cause firms in all industries to employ more workers to meet the increased demand. The increase in employment leads to induced effects because the additional wages and salaries paid to workers foster greater consumer spending.

The mitigation measures for the build alternatives vary somewhat, especially when comparing the Bored Tunnel Alternative to the Cut-and-Cover Tunnel and Elevated Structure Alternatives. The mitigation measures for all the build alternatives, however, have common themes:

- Focusing on clearly defining and directing pedestrian and vehicle traffic in a systematic and streamlined manner
- Providing adequate parking for construction workers and encouraging short-term parking along the waterfront
- Distributing timely and informative project and construction updates
- Providing noise mitigation
Preparing and assisting businesses within the project area to maintain an accessible and profitable business

The build alternatives would result in enhanced mobility to activity centers in both the south and north portal areas and beyond, particularly to the SODO commercial and business district and the stadium area. Overall, the infrastructure improvements in the north portal area would improve truck freight mobility and vehicle and pedestrian connections. In turn, these benefits would improve business efficiencies due to the increased circulation near the project area. The build alternatives would contribute to local and regional mobility by providing drivers with an alternative to I-5 and Seattle’s surface streets. The benefits of the Elevated Structure Alternative would not be as substantial as those described for the Cut-and-Cover Tunnel Alternative and Bored Tunnel Alternative. A more in-depth discussion of economic effects is provided in Appendix L, Economics Discipline Report. A more in-depth discussion of mobility, including freight, is provided in Appendix C, Transportation Discipline Report.

The specific losses that may or may not materialize for businesses outside of the area of immediate impact would be subject to economic forces beyond the control of this project and cannot be calculated without speculation.

C-047-004

Air quality effects during construction would occur primarily as a result of dust and emissions from construction equipment (such as bulldozers, backhoes, and cranes), diesel-fueled trucks, diesel- and gasoline-fueled generators, and other project-related vehicles such as service trucks. Potential air quality impacts during the construction period have been estimated and are discussed in Appendix M, Air Discipline Report. A more in-depth discussion of mobility, including congestion and detours,
is provided in Appendix C, Transportation Discipline Report. Please refer to the Final EIS for current information.

C-047-005
Heavy vehicles constitute approximately 6 percent of the Average Daily Traffic (ADT) volume in the northbound direction. The Bored Tunnel grades do not exceed 4 percent and should not pose an impact to trucks traveling in the tunnel. The Cut-and-Cover Tunnel Alternative south of the south tunnel portal has grades of 6.5 percent (steepest grade), but this section is no more than 800 feet long.

C-047-006
At this time, transporting hazardous materials in the Battery Street Tunnel is prohibited. The Final EIS notes that hazardous and flammable cargo would be prohibited in the Bored Tunnel Alternative as well. Currently, hazardous/flammable materials can be transported on downtown city streets without restriction, as long as the trucks do not exceed 30 feet in length. Vehicles exceeding 30 feet in length carrying hazardous or flammable materials wishing to travel through downtown Seattle would continue to use I-5 or Alaskan Way. This practice is not expected to change as a result of Alaskan Way Viaduct Replacement Project construction activities.

C-047-007
Cost estimates for the alternatives currently being evaluated include current proposed mitigation measures and a reasonable allowance for additional mitigation measures that have not yet been identified. Costs in and of themselves are not an environmental subject normally discussed in an EIS. Please refer to the Final EIS for current information.

C-047-008
The Broad Street Detour described in the Final EIS is only for the
Elevated Structure Alternative. The detour would construct a temporary trestle structure from approximately Alaskan Way and Vine Street to the intersection of Broad Street and Western Avenue. The Broad Street Detour would be in place for approximately 27 months while the improvements to the Battery Street Tunnel are completed. An updated description of the alternatives and of construction-related transportation effects is provided in the Final EIS and Appendix C, Transportation Discipline Report.

C-047-009
The Seattle Monorail Project’s Green Line is no longer being considered for implementation, and therefore cannot be assumed as a mitigation strategy to either complement or replace the project. However, other high-capacity transit developments that are currently being planned or implemented (e.g., RapidRide, Link light rail) would address many of the trips that are made on a daily basis through the Alaskan Way Viaduct corridor. The transportation analysis described in the Supplemental Draft EISs and Final EIS (including Appendix C, Transportation Discipline Report) was conducted assuming this changed condition.

C-047-010
Many people have expressed that they enjoy the views when traveling on the viaduct. The visual character and quality of the views, as well as the likely viewer response of drivers and passengers are discussed in Final EIS Appendix D, Visual Quality Discipline Report. The analysis considers the SR 99 corridor, which is designated as a City of Seattle Scenic Route, and identifies and assesses other designated view corridors primarily along east-west streets. Views from the roadway and of the roadway are both assessed.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments and recognize the owners’ concern for their property’s value.

The specific mitigation measures presented in the Final EIS address many of the concerns raised in your letter. Specific to noise impacts, the project will be subject to the City of Seattle’s noise variance process prior to nighttime construction activity. The noise variance, if granted by the City, will establish clear limits for nighttime construction noise and required mitigation measures for the contractor to follow.

Impacts to properties will be evaluated in accordance with the state and federal requirements for property acquisition, after considering the implementation of mitigation measures to minimize project-related impacts as discussed in the noise, air quality, transportation, and other pertinent sections of the Final EIS. At that time, a determination will be made whether it is necessary to acquire a particular property, or an interest in property, for the project.
C-048-003
The description of construction impacts provided in the 2006 Supplemental Draft EIS accurately disclosed potential impacts with sufficient detail and accuracy to inform the public and decision-makers, as required by both NEPA and SEPA. The project has since changed, as described in Chapter 2 of the Final EIS. Please refer to the Final EIS for complete current information.

C-048-004
Construction impacts to areas adjacent to the project are described in Chapter 6 of the Final EIS, with specific discussion of how impacts will vary by location. More detailed descriptions of construction effects are provided in the technical appendices.

C-048-005
The description of operation and construction effects of the project, and associated mitigation measures, fully meets NEPA and SEPA requirements. Additional detail would not alter the fundamental conclusions and statements of fact provided but would be speculative.
Mitigation, like project plans, evolve and are refined throughout the development process. The 2004 Draft and 2006 and 2010 Supplemental Draft EISs have each described mitigation at a level of detail appropriate to the design at that time. Continued analysis and work with affected parties like the waterfront businesses has led from the general types of mitigation discussion contained in the Draft EIS to the more specific measures contained in the Final EIS. Mitigation commitments will be described in the Record of Decision, per NEPA regulations.
The construction plans evaluated for noise and vibration are described in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report. While actual construction plans and activity sequencing could differ from this evaluation, the locations and types of activities would be similar under the final sequence.

Construction of the project will require nighttime construction activities, and the City requires a Major Public Project Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance. The Major Public Project Noise Variance will be presented for public comment. Mitigation measures for noise effects are described in the Final EIS and Appendix F, Noise Discipline Report.
The Final EIS contains the current information about proposed parcel acquisitions and their construction use for all the build alternatives, including the preferred Bored Tunnel Alternative. Note that the Bored Tunnel Alternative minimizes construction noise along the waterfront.

Since the publication of the 2006 Supplemental Draft EIS, an additional noise measurement was taken at the Waterfront Landing Condominiums and will be used to calculate the noise levels limits for the construction noise variance application. Please see the Final EIS Appendix F, Noise Discipline Report, for the current information.
Please see the response to comment C-048-007. Also, the Final EIS does not consider the potential noise indirect effect of poor health due to sleep deprivation. Construction for any alternative would be phased so one area along the viaduct alignment would not be subjected to, say, 7 years of constant construction noise. With the preferred Bored Tunnel Alternative, the main construction noise in the vicinity of the Waterfront Landings would be during the demolition of the old viaduct, which would take about 9 months.

The project’s public involvement process will continue through project construction. During project construction the public will be able to contact the project with construction-related complaints. This process will include a mechanism for tracking, evaluating, and resolving public complaints by taking appropriate corrective measures. The complaint resolution procedure will be submitted during the public hearing process as part of the Technical Noise Variance application.

Light and glare impacts and proposed mitigation measures are discussed in the Final EIS and in Appendix D, Visual Quality Discipline Report, as an element of the visual environment. Lighting on the existing viaduct and arterial lighting on surface streets, including Alaskan Way, generates a high level of ambient light. For the Waterfront Landing homes between Pine Street and Lenora Street, an additional source of light is the Port of Seattle Pier 66 Bell Harbor marina. Residents have likely already made provision for high urban ambient light levels in the area through various window shade treatments. Impacts of light and glare on sleeping residents are not expected from any of the build alternatives during operation or construction.
C-048-013

Impact pile driving would be the most significant source of vibration for this project. Several potential mitigation measures to reduce vibration from impact pile driving that can be used by the contractor, when appropriate for specific site conditions, are outlined in the Final EIS Appendix F, Noise Discipline Report.

The contractor would be required to monitor vibration at the nearest historic structure or sensitive receiver to the construction activities. The monitored data would be compared to the project's vibration criteria to ensure that ground vibration levels do not exceed the damage risk criteria for historic and non-historic buildings. The project's vibration criteria would likely be coordinated with the City of Seattle.

Vibration from other construction activities can be reduced by either restricting their operation to predetermined distances from historic structures or other sensitive receivers, or using alternative equipment or construction methods. An example would be the use of saws or rotary rock cutting heads to cut bridge decks or concrete slabs instead of a hoe ram.
The Final EIS describes the operational and construction noise and vibration effects on the people who work or reside in the project area.
Access to Waterfront Landings will be maintained during construction. Impacts to traffic during construction have been updated and are summarized in the Final EIS and discussed in more detail in Appendix C, Transportation Discipline Report. Strategies for mitigating impacts from project construction can also be found in these documents.

The Broad Street detour proposed under the Elevated Structure Alternative is expected to carry southbound traffic during portions of construction. Approximately 2,600 southbound vehicles currently travel through the Battery Street Tunnel during the PM peak hour, typically the most congested hour during the day. The Broad Street detour would provide an alternate route for these travelers during construction. However, the Broad Street detour follows surface arterials as it exits southbound SR 99. Therefore, traffic capacity on these dedicated lanes may not be equal to the current capacity of two lanes of SR 99. The capacity Broad Street detour is expected to be between 800 and 1,200 vehicles per hour, in addition to local traffic already traveling along these roadways. The remainder of the detoured traffic is expected to divert to use City streets in the downtown area to reach their final destinations. Updated analysis of the traffic impacts during construction have been conducted for the Elevated Structure Alternative as part of Appendix C, Transportation Discipline Report, of the Final EIS.

The lead agencies understand that the Waterfront Landing residents utilize Alaskan Way extensively. The analysis in the EIS does not treat the Alaskan Way surface street and the Alaskan Way Viaduct as the same roadway except for in the 2004 Draft EIS Surface Alternative. The Surface Alternative would have placed SR 99 traffic on a widened Alaskan Way surface street through the central waterfront, which could
have caused the terminology confusion. That alternative is no longer being considered.

C-048-018

The Broad Street Detour described in the Final EIS is only for the Elevated Structure Alternative. The detour would construct a temporary trestle structure from approximately Alaskan Way and Vine Street to the intersection of Broad Street and Western Avenue. The Broad Street Detour would be in place for approximately 27 months while the improvements to the Battery Street Tunnel are completed. An updated description of the alternatives and of construction-related effects is provided in the Final EIS and supporting discipline reports.

C-048-019

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The Final EIS Appendix C, Transportation Discipline Report, includes strategies for addressing loading/unloading that takes place north of Pike Street on Alaskan Way. The project recognizes that loading zones for waterfront piers and businesses will be affected. Clear signage and route maps will be developed to direct delivery vehicles to the appropriate locations. Bus and taxi turnaround zones would be accommodated close to the Colman Dock and Aquarium to accommodate passenger drop-off/pick-up. Delivery trucks also could use the turnaround zones as
needed. Detailed access plans will be developed for the central and north waterfront as the project progresses.

C-048-020

Parking at the triangular lot south of the Waterfront Landings would be impacted by the project. Mitigation strategies are aimed at reducing the demand for parking and accommodating short-term parkers. Visitor parking for the Waterfront Landings is not specifically being addressed by the project. If there are visitors who need to be accommodated with parking spaces close to the Waterfront Landings, they would likely be best served by using existing parking spaces in the Waterfront Landings garage. Please refer to the Final EIS Appendix C, Transportation Discipline Report, for additional information on overall parking mitigation strategies.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront
Implement electronic parking guidance system

- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

**C-048-021**

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

**C-048-022**

The project does not intend to pursue use of any parking spaces in the Waterfront Landings garage. The strategy to increase utilization of existing parking garage spaces would be most suited to garages that currently offer public parking and want to attract more customers through marketing, signage, and an electronic parking guidance system.
The seawall is part of the Cut-and-Cover Tunnel and Elevated Structure Alternatives but is a separate project led by the City of Seattle under the Bored Tunnel Alternative. The decision to replace the seawall is not based on the desire to avoid regular maintenance costs and periodic capital repairs. The maintenance and repairs are the minimum needed to keep the seawall functioning, though the seawall is already past its design life. Test probing indicated 37 percent of the seawall had timber relieving platform damage. This maintenance work will increase in frequency and expense as the seawall continues to age. Typical marine structures built in the 1930s were designed to last up to 50 years. The seawall is over 70 years old. An expanded monitoring program is essential to better predicting seawall movement increases, which are our best means of advance warning of a failure.

The new seawall design, whether included as part of the Alaskan Way Viaduct Replacement Project or as a separate project, will meet current seismic design criteria that the existing seawall does not meet. Analysis of the existing seawall indicates it will not withstand a large earthquake, even if it were in like-new condition. Planning for the needed replacement is the prudent and fiscally responsible approach.

Please note that the preferred Bored Tunnel Alternative would not include constructing a new seawall. For the Elevated Structure Alternative, the seawall along the waterfront would support the ground surrounding the footings of an elevated structure alternative, so they are being designed to the same earthquake standard as the elevated structure. It bears pointing out that the difference between a 500-year and 2,500-year earthquake in terms of load on a structure is in the range of 10 to 20 percent. This is generally not sufficient to preclude an alternative, nor would there be any appreciable difference in terms of the construction impacts. The project has evolved since the 2006
As discussed in the Supplemental Draft EIS Appendix O, the Public Services and Utilities Technical Memorandum, the City of Seattle standard for emergency response time is four minutes.

The lead agencies will continue coordination with the City of Seattle and Port of Seattle police and fire departments, regional transportation agencies, and other related agencies during the final design of the selected alternative. The objectives of this coordination are to provide reliable emergency access and alternative plans or routes to avoid delays in response times, and to ensure that general emergency management services are not compromised. Early notice of detours and lane restrictions will be provided to emergency and nonemergency public service providers.

Please see the Final EIS for current information on utility relocations for the Bored Tunnel Alternative, which is the preferred alternative, as well as for the other proposed build alternatives analyzed in the document. In general, construction contractors are responsible for maintaining services during construction. If utility service is inadvertently disrupted during construction, emergency repairs will be performed in accordance with the requirements of the utility provider.

Comment noted. Current standards for the design of major construction projects such as the Alaskan Way Viaduct Replacement Project require that no collapse should occur under what are termed “rare earthquakes” (those with a 2,500-year return period). The amount of disruption due to
the construction activity could be reduced by staging the work so that one section is done at a time before moving on to the next one.

With the preferred Bored Tunnel Alternative, the seawall would be replaced under a separate project led by the City of Seattle.

C-048-028
It is highly unlikely that vibration resulting from work in the immediate vicinity of the Waterfront Landings Condominiums will cause structure damage to the condos. The project will, however, monitor vibration at adjacent structures along the alignment, including Waterfront Landings. In the unlikely event that vibration impacts from the project result in damage to the condominium complex, the costs of repairs will be borne by the project.

C-048-029
Construction activities, especially along the central waterfront and to a lesser extent the north waterfront, would affect businesses and properties adjacent to the project on either side of the right-of-way. The project team met numerous times with the businesses and property owners in the central and north waterfront to prepare them for the upcoming construction and to solicit input on a variety of mitigation strategies. These mitigation strategies are presented in the Final EIS, Chapter 8, as well as Appendix L, Economics Discipline Report.

If provisions of the Uniform Relocation Act are met, then relocation assistance would be provided. The project will not compensate any property owner for reduced property values except where the project has determined that adequate access cannot be maintained. The project will not guarantee sale at fair market value.
The information provided by the 2006 Supplemental Draft EIS (main volumes and appendices) does meet NEPA and SEPA requirements for disclosing potential impacts and mitigation measures. The level of detail requested by this letter is not necessary to understand the effects of the project and how they might be mitigated. Such a detailed description would inaccurately convey an ability to precisely predict how large and very complex projects are built. Instead, greater detail would mislead the reader and provide grounds for future claims against the project. Further, the public and nearby residents, businesses, and property owners (including this commenter) have been directly involved in a meaningful way in developing mitigation measures and programs for this project. In addition, analysis for the Bored Tunnel Alternative was presented in the 2010 Supplemental Draft EIS. Please see the Final EIS for the current information on effects and mitigation.
Thank you for your support of the project and recognition of the urgent need to replace the viaduct.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

Economic impacts specific to the Central Waterfront properties were identified in Sections 6.1.2, 6.1.3, 6.1.6, and 6.3.2 of the 2006 Supplemental Draft EIS Economics Technical Memorandum. These have been updated in Appendix L, Economics Discipline Report, of the Final EIS. Probable significant adverse impacts are not expected for either the Port of Seattle or the Ballard/Interbay industrial areas with the exception of a decrease in freight mobility and increase in congestion for truck traffic as they use alternative freight routes. The loss of freight mobility will have a resultant loss in productivity, which is discussed in the Economics Discipline Report of the Final EIS as a cost of congestion.

Probable significant adverse impacts for Downtown Seattle would be limited to those properties abutting the construction zone (east and west sides). Significant impacts to the bulk of downtown Seattle will revolve primarily around the increase in congestion as traffic is displaced from the immediate corridor and is absorbed on the surface street network. The increase in congestion will have a resultant loss in productivity, which is discussed in the Economics Discipline Report of the Final EIS.
A primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. As construction phasing and staging is refined throughout the design process, it may be determined that it is neither reasonable nor feasible to maintain access to some businesses. If adequate access cannot be maintained, impacts to affected businesses will be mitigated as discussed in Chapter 8 of the Final EIS. If provisions of the Uniform Relocation Act are met, then relocation assistance would be provided.

Construction activities, especially along the central waterfront and, to a lesser extent the north waterfront, would interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. The project team has met numerous times with the businesses and property owners in the central and north waterfront to prepare them for the upcoming construction and to solicit input on a variety of mitigation strategies (see Chapter 8 of the Final EIS). We anticipate close coordination with nearby businesses and property owners continuing through the rest of the design process and all stages of construction.

C-049-004

A local improvement district is not being considered as part of the proposed funding plan for replacing the viaduct; however, the City of Seattle may consider one as part of the Central Waterfront Project.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

C-050-001

The Greater Seattle Chamber of Commerce would like to reiterate its support for the Cut and Cover Tunnel to replace the Alaskan Way Viaduct.

The new cost estimates WSDOT released this week only reinforces the need for decisive leadership. The longer we wait the more expensive it’s going to get. And as the Governor’s expert review panel said, the biggest risk to this project is political indecision. The time is now. We must make a decision on how to move forward with the Viaduct replacement.

We look forward to working with you, WSDOT and SDOT to build the economic case and financing plan for this preferred alternative. Only through rigorous analysis and collaborative planning will we come up with a proposal that meets the test of the public in the year ahead.

We ask that you vote today to support an ordinance that would declare a tunnel the preferred alternative of the City of Seattle.

Sincerely,

Steve Leahy
President and CEO
Greater Seattle Chamber of Commerce
September 21, 2006

Dear Ms. Kate Stenberg,

Thank you for the opportunity to contribute to this important decision for Seattle’s future through responding to the Alaskan Way Viaduct and Seawall Replacement supplemental draft EIS.

C-051-001

We at the People’s Waterfront Coalition urge you to include a range of lower-cost and more environmentally friendly choices in the supplemental draft EIS. The purpose of the AWV/Seawall replacement project as initially defined was to “provide a transportation facility and seawall with improved earthquake resistance that maintains or improves mobility and accessibility for people and goods along the existing Alaskan Way Viaduct Corridor.”

The purpose and need statement does not refer to a specific number of vehicles or passengers but to the overall transportation functions in the corridor. It seems the phrase “maintains or improves mobility and accessibility” was deliberately chosen so as to allow consideration of a broad range of facility types and mix of modes among the alternatives.

C-051-002

We urge you to look more broadly at a range of possible options to provide mobility to people and freight, from a smaller tunnel to a Transit + Streets proposal that invests in transit and enhancing the surface street network instead of a new highway segment. We urge you to creatively consider all the various types of capacity that may be employed to provide mobility in this corridor – on city streets, new light rail, new bus rapid transit, pedestrian ferries, new streetcars, and increased service on existing transit.

The arbitrary limitation imposed by the legislature on maintaining vehicle capacity on a single facility is itself causing serious problems:
- the project costs are too high relative to funding available
- extended megaproject construction imposes too much hardship on existing businesses in one of Seattle’s main economic centers
- encouraging auto usage with more car capacity instead of mode shift runs counter to our shared commitment to reduce carbon emissions
- pouring millions of tons of concrete along the shoreline is detrimental to the marine ecology of Elliott Bay, however you try to mitigate it.

Because of these shortcomings, we believe neither of the two alternatives carried forward in the draft EIS as preferred alternatives serve the mobility function in an environmentally and fiscally responsible way.

C-051-003

Second, we also urge you to broaden the range of measures used to calculate economic impacts of this decision. There is enough attention paid to initial capital costs and the cost of congestion, but these measures are insignificant relative to the long-term effects on Seattle’s economic viability. Given its economic and civic potential, this is perhaps Seattle’s most

C-051-001

FHWA, WSDOT, and the City of Seattle agree (although “traffic safety” was omitted in your quote of the purpose statement). The project’s purpose is fundamental for all alternatives. The Surface and Bypass Tunnel Alternatives were eliminated, and a no-replacement alternative is not acceptable, because they do not fulfill the purpose of the project.

C-051-002

The lead agencies appreciate receiving your comments and recognize your concerns related to costs, transit, and potential construction effects to businesses and natural resources. The Final EIS Chapter 2, Alternatives Development, describes the history of the project, which included screening 76 viaduct replacement concepts and seven seawall concepts which were packaged into the five build alternatives evaluated in the 2004 Draft EIS. This chapter also addresses development of the I-5, Surface, and Transit Hybrid. After the purpose and need statement was updated in 2009, design concepts were reevaluated and screened to determine the alternatives to be evaluated in the 2010 Supplemental Draft EIS. The Surface and Transit Hybrid concept was screened out because the lead agencies determined it lacked the capacity to serve the long-term needs of the region and it does not meet the project’s purpose and need to provide capacity to and through downtown Seattle.

C-051-003

The economic analysis in the Final EIS accounts for those impacts and benefits that are under the direct control of the project. Indirect and secondary impacts and benefits are identified as they can be reasonably tied to a general project activity. Expanding the analysis to address the economic vitality of the City of Seattle would be speculative and any conclusions that would be drawn would be subject to forces beyond the control of this project.
The purpose and need of this project are not defined as meeting the goals of Seattle’s Comprehensive Plan. Appendix G, Land Use Discipline Report, of the Final EIS evaluated how the project would comply with the Seattle Comprehensive Plan’s goals. However, the project is limited in its regional economic effect—replacing an existing road with a new road that maintains or improves mobility and accessibility—after construction is completed.

Some of the indirect economic impacts and benefits that are requested to be analyzed are beyond the control of the project, including expected development potential and real estate value, the future transportation cost burden per household, and the quality of life impacts. The economic analysis addressed City of Seattle and King County revenue generated/lost by the project (parking meters, property tax base, and sales tax) that can be tied to elements under the direct control of the project. The economic analysis also addressed the impacts to businesses during construction, especially to those businesses in business districts of special concern (Central Waterfront and Pioneer Square); however, the analysis did not analyze whether a particular business would thrive, fail, or just survive, as the performance of an individual business is beyond the control of the project.

Appendix M, Air Quality Discipline Report, of the Final EIS analyzed vehicle trips and their emissions.
Thank you for your comment. Further analysis of the traffic effects during construction has been conducted and is presented in Chapter 6 of Final EIS Appendix C, Transportation Discipline Report. This chapter provides a number of transportation metrics such as travel time for various routes, intersection operations, SR 99 mainline operations, and system-wide performance measures for each alternative. Also included in the chapter are discussions of the construction effects of each alternative on trucking and freight traffic.

Further analysis of the traffic effects during construction has been conducted and is included in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. Please refer to this chapter for more current information.

Probable significant adverse construction impacts are not expected for either the Port of Seattle or the Ballard/Interbay industrial areas with the exception of a decrease in freight mobility/increase in congestion for truck traffic as they use alternative freight routes. The loss of freight mobility will have a resultant loss in productivity, which is discussed in Appendix L, Economics Discipline Report, of the Final EIS as a cost of congestion.

The economic impacts associated with freight mobility were described in Section 6.2.3 of the 2006 Supplemental Draft EIS Economics Technical Memorandum as a result of displacements and have been updated in Appendix L of the Final EIS. Unfortunately, it is not possible to keep the viaduct open during the entire construction period. With the exception of mitigation measures presented in the Final EIS and Appendix C, Transportation Discipline Report, that are specific to the movement of freight, there is little that the project can do to mitigate impacts to...
6. The EIS does not adequately discuss the impact to flammable and hazardous materials transport through the corridor, during and after construction for either of the alternatives. The impacts could force Ballard businesses to close.

7. View Blockage. Seattle residents and visitors enjoy views of the Olympics, City and the waterfront from the current elevated structure. Under the tunnel alternative they will be removed. The EIS suggests that the removal of the elevated structure will increase the views for the general public. This reflects faulty analysis inasmuch as there are many structures blocking the views which will not be removed. Some views may be increased for inhabitants of buildings that currently exist or may be built along Western Avenue, but the number of people that would receive benefit from the demolition of the elevated structure is very small compared to the number that benefit from the views from the elevated structure on a daily basis.

8. The Seattle Monorail program was presented in the draft EIS as a form of mitigation to traffic impacts. The Monorail is not going to be constructed; this changed condition was not addressed in the SEIS and should be addressed in the FEIS.

The Ballard District Council appreciates the opportunity to provide comment on the EIS and looks forward to seeing your responses.

Respectfully,

Mary Hurley
President

C-052-004

Air quality effects during construction would occur primarily as a result of dust and emissions from construction equipment (such as bulldozers, backhoes, and cranes), diesel-fueled trucks, diesel-and gasoline-fueled generators, and other project related vehicles such as service trucks. Potential air quality impacts during the construction period have been estimated and are discussed in Appendix M, Air Discipline Report. Please refer to the Final EIS for current information.

C-052-005

The Bored Tunnel grades would not exceed 4 percent and should have only a marginal effect on truck speeds. The Cut-and-Cover Tunnel south of Battery Street Tunnel south portal would have grades of 6.5 percent (steepest grade), but this section is about 800 feet long.

C-052-006

At this time, transporting hazardous materials in the Battery Street Tunnel is prohibited. The Final EIS notes that hazardous and flammable cargo would be prohibited in the Bored Tunnel as well. Currently, hazardous/flammable materials can be transported on downtown city streets without restriction, as long as the trucks do not exceed 30 feet in length. Vehicles exceeding 30 feet in length carrying hazardous or flammable materials wishing to travel through downtown Seattle would continue to use I-5 or Alaskan Way. This practice is not expected to change as a result of Alaskan Way Viaduct Replacement Project construction activities.
Many people have expressed that they enjoy the views when traveling on the viaduct. The visual character and quality of the views, as well as the likely viewer response of drivers and passengers are discussed in Appendix D, Visual Quality Discipline Report. The analysis considers the SR 99 corridor, which is designated as a City of Seattle Scenic Route, and identifies and assesses other designated view corridors primarily along east-west streets. Views from the roadway and of the roadway are both assessed.

As correctly stated, the Seattle Monorail Project’s Green Line is no longer being considered for implementation, and therefore cannot be assumed as a mitigation strategy to either complement or replace the project. However, other high-capacity transit developments that are currently being planned or implemented (e.g., RapidRide, Link light rail) would address many of the trips that are made on a daily basis through the Alaskan Way Viaduct corridor. The transportation analysis described in the Supplemental Draft EISs and Final EIS (including Appendix C, Transportation Discipline Report) was conducted assuming this changed condition.
C-053-001
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

C-053-002
The concept of enhancing neighborhood connections across Aurora Avenue has continued to be among the improvements being considered as part of the project. All the build alternatives include new street connections across Aurora Avenue north of the Battery Street Tunnel. For example, for the preferred Bored Tunnel Alternative, Aurora Avenue would be built to grade level between Denny Way and John Street. John, Thomas, and Harrison Streets would be connected as cross streets with signalized intersections on Aurora Avenue at Denny Way and John, Thomas, and Harrison Streets. See the Final EIS for the current configuration of all the proposed build alternatives.
A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

The south portal location has been analyzed by the design team. The configuration of the tunnel requires that on- and off-ramps access the tunnel from the tunnel portals. Moving the tunnel portal south would force the on- and off-ramps into the existing railyards. This cannot be done given the current rail operations and rail traffic.

At this time, a lid over SR 99 from King Street to S. Royal Brougham Way is not proposed as it would not increase pedestrian access between areas of pedestrian activity. The addition of a lid would essentially extend the tunnel and would require similar support facilities for ventilation, fire suppression, and emergency egress. This structure would have similar costs per linear foot as the tunnel. In addition, because the area in question is bordered on the west by the Port of Seattle, an industrial facility, a pedestrian lid would not link the stadium areas to a public waterfront destination.
The speed limit along the Alaskan Way surface street is currently 30 mph, the standard speed limit for arterial streets in the City of Seattle. The Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives, the build alternatives carried forward to the Final EIS, do not propose to change the speed limit along the Alaskan Way surface street. Traffic signals on Alaskan Way for the Cut-and-Cover Tunnel and Elevated Structure Alternatives would be designed to help facilitate safe and efficient traffic flow along the corridor. The Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project.

With the Cut-and-Cover Tunnel Alternative, the southbound on-ramp at Columbia Street and the northbound off-ramp at Seneca Street will be removed. Traffic patterns are expected to alter slightly with removal of these ramps, and the Alaskan Way surface street is expected to carry additional traffic to and from the central business district. To provide similar capacity levels as currently exists today, six lanes of traffic on the Alaskan Way surface street are necessary south of Yesler Way. With the Elevated Structure Alternative, additional lanes proposed on portions of Alaskan Way are for the purpose of improving traffic circulation and flow, especially in the vicinity of Colman Dock. The Bored Tunnel Alternative does not include the Alaskan Way surface street as part of the project.

Construction of the Olympic Sculpture Park in 2008 led to the indefinite suspension of the George Benson Line Waterfront Streetcar service because it displaced the vehicle storage and maintenance facility. King County Metro currently provides replacement service with fare-free bus service on the Route 99 Waterfront Streetcar Line. The routing and stop locations for this line do not exactly duplicate those of the waterfront streetcar; however, Route 99 serves the same neighborhoods—the waterfront, Pioneer Square, and Chinatown/International District. With
the Bored Tunnel Alternative the final location of the streetcar will be
determined by the Central Waterfront Project being led by the City of
Seattle. Both the Cut-and-Cover Tunnel and the Elevated Structure
Alternatives include the streetcar along Alaskan Way.

C-053-009
The Alaskan Way Viaduct Replacement Project does not include specific
plans for new park and recreation facilities or specific waterfront
amenities, because the purpose of the project is to provide replacement
transportation facility. The Final EIS analysis provides decision-makers
with information to weigh the range of impacts and opportunities
presented by the build alternatives on existing and potential future open
space, public access, and park and recreation facilities as one of many
factors balanced in making the choice of the preferred alternative.
With the Bored Tunnel Alternative, the exact configuration and types of
activities on the waterfront will be decided by the Central Waterfront
Project, led by the City of Seattle. There will be many opportunities for
the public to participate in that master planning effort and to determine
the future of their waterfront.

C-053-010
FHWA, WSDOT and the City of Seattle have made every effort to
assess and avoid or minimize environmental impacts from the project. In
addition, these lead agencies are working cooperatively with other
agencies, such as the Port of Seattle and Department of Natural
Resources.
The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.

A detailed discussion of freight generators, freight corridors, and impacts to freight is included in the Final EIS Appendix C, Transportation Discipline Report.

The build alternatives would result in enhanced mobility to activity centers in both the south and north portal areas and beyond, particularly to the SODO commercial and business district and the stadium area. Overall, the infrastructure improvements in the north portal area would improve truck freight mobility and vehicle and pedestrian connections. In turn, these benefits would improve business efficiencies due to the increased circulation near the project area. The build alternatives would contribute to local and regional mobility by providing drivers with an alternative to I-5 and Seattle’s surface streets. The benefits of the Elevated Structure Alternative would not be as substantial as those described for the Cut-and-Cover Tunnel Alternative and Bored Tunnel Alternative. A more in-depth discussion of economic effects is provided in Appendix L, Economics Discipline Report. A more in-depth discussion of mobility, including freight, is provided in Appendix C, Transportation Discipline Report.
Further analysis of the traffic impacts during construction has been conducted and is presented in Chapter 6 of the Final EIS Appendix C, Transportation Discipline Report. The chapter provides a number of transportation metrics such as travel time for various routes, intersection operations, SR 99 mainline operations, and system-wide performance measures for each alternative. Also included in the chapter are discussions of the construction effects of each alternative on trucking and freight traffic.

The Final EIS Appendix C, Transportation Discipline Report, addresses impacts on regional facilities, such as I-5 and major east-west corridors used by the freight community, in more detail.

Mitigation measures, presented in Chapter 8 and Appendix C (Transportation Discipline Report) of the Final EIS will be followed to minimize disruptions such as detours and traffic congestion during the project's construction phase. Estimates for the potential direct emissions of greenhouse gases under the build alternatives are provided in the Final EIS and Appendix R, Energy Discipline Report. Potential air quality impacts during the construction period have been estimated and are discussed in Appendix M, Air Discipline Report.

The build alternatives would result in enhanced mobility to activity centers in both the south and north portal areas and beyond, particularly to the SODO commercial and business district and the stadium area. Overall, the infrastructure improvements in the north portal area would improve truck freight mobility and vehicle and pedestrian connections. In turn, these benefits would improve business efficiencies due to the
increased circulation near the project area. The build alternatives would contribute to local and regional mobility by providing drivers with an alternative to I-5 and Seattle’s surface streets. The benefits of the Elevated Structure Alternative would not be as substantial as those described for the Cut-and-Cover Tunnel Alternative and Bored Tunnel Alternative.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.

A more in-depth discussion of economic effects is provided in Appendix L, Economics Discipline Report. A more in-depth discussion of mobility, including freight, is provided in Appendix C, Transportation Discipline Report.

C-054-008
The Bored Tunnel grades would not exceed 4 percent and should have only a marginal effect on truck speeds. The Cut-and-Cover Tunnel south of Battery Street Tunnel south portal would have grades of 6.5 percent (steepest grade), but this section is about 800 feet long.

C-054-009
The Final EIS notes that hazardous and flammable cargo would be prohibited in the bored tunnel all day. Currently, hazardous/flammable materials can be transported on downtown city streets without restriction,
as long as the trucks do not exceed 30 feet in length. Vehicles exceeding 30 feet in length carrying hazardous or flammable materials wishing to travel through downtown Seattle will continue to use I-5 or Alaskan Way. This practice is not expected to change as a result of the Alaskan Way Viaduct Replacement Project construction activities.

C-054-010
The Seattle Monorail Project’s Green Line is no longer being considered for implementation, and therefore cannot be assumed as a mitigation strategy to either complement or replace the project. However, other high-capacity transit developments that are currently being planned or implemented (e.g., RapidRide, Link Light Rail) would address many of the trips that are made on a daily basis through the Alaskan Way Viaduct corridor. The transportation analysis described in the Supplemental Draft EIS and Final EIS (including Appendix C, Transportation Discipline Report) was conducted assuming this changed condition.

C-054-011
Mitigation measures have been developed and are included in Chapter 8 of the Final EIS. Funds for implementing the mitigation plan are included in the project budget.
The extensive shoreline modifications along the Seattle waterfront are a result of the historic industrial and commercial activities occurring in the area, and these activities will continue to be the primary uses of the waterfront under all the build alternatives. While the Seattle waterfront is currently highly modified, with limited shallow water habitat and extensive overwater structures, salmon and other species continue to access and utilize the available habitat. In addition, there is extensive shallow water beach habitat around Elliott Bay, providing an array of alternative forage, resting, and protection functions for these species.

If the preferred Bored Tunnel Alternative is selected, replacement of the seawall would occur under a separate project, the Elliott Bay Seawall Project, led by the City of Seattle. If the Elevated Structure Alternative or Cut-and-Cover Tunnel Alternative is selected, the proposed seawall replacement process would occur entirely landward of the existing seawall, resulting in no changes to the existing nearshore habitat.

The project will include some in-water work to provide temporary access during the construction process. Therefore, project biologists and engineers coordinated with the resource agencies and other interested parties to address the fish habitat concerns along the Seattle waterfront, and identify potential mitigation opportunities for specific project impacts. The City of Seattle is currently evaluating the effectiveness of several different habitat enhancement panels, which could be attached to the seawall face to increase and improve aquatic habitat conditions along the waterfront.

C-055-002
The project engineers and biologists have coordinated with the resource agencies and interested parties to identify appropriate mitigation for project-related impacts to aquatic habitat along the central waterfront. We anticipate that this collaboration will result in full and appropriate
mitigation for such project impacts. This mitigation is expected to improve fish habitat conditions in the area, and when combined with other independent restoration projects (completed, in progress or expected to occur in the near future), will help to reach the 30 percent restoration goal for the waterfront segment.

C-055-003
Neither beach creation nor direct contact with the water will likely be part of the project. Note that, if the preferred Bored Tunnel Alternative is selected, the City of Seattle would lead a project to replace the Elliott Bay Seawall.

C-055-004
This project will reduce water quality impacts to Elliott Bay through the proposed stormwater management approach which will treat a portion of the currently untreated stormwater from the project area with water quality BMPs that meet the basic requirements, as defined in the 2005 Ecology Manual. There are no project commitments to remediate contaminated sediment/soil in Elliott Bay; however, contaminated sediment will be removed where necessary to install the new seawall. The contaminated sediment will be disposed of at an approved off-site facility.

C-055-005
The lead agencies fully agree the need for improvements is urgent and are endeavoring to move the project ahead expeditiously.

C-055-006
The construction mitigation measures include funding for some increased bus service in the West Seattle, Ballard/Uptown, and Aurora Avenue corridors during the initial portions of the construction period, as well as a bus travel time monitoring system. This mitigation program will
also include information about travel alternatives and incentives to encourage use of transit, carpool, and vanpool programs. Refer to Chapter 8 Mitigation of the Final EIS for more information.

C-055-007

All of the alternatives suggested by this comment, and many others, have been considered during the course of project development. We respectfully disagree that the public has not been engaged or given the opportunity to understand and discuss these choices. There have been literally hundreds of presentations to community groups and dozens of public meetings where information has been freely shared and choices openly discussed. Further discussion of alternatives that have already been carefully considered would cause project delay. As stated above in paragraph one of your letter (C-055-005), the project is addressing an urgent need and delay will only increase costs and possible failure in a seismic event.

C-055-008

For the preferred Bored Tunnel Alternative, the seawall would be replaced under a separate project, the Elliott Bay Seawall Project, led by the City of Seattle. For the Elevated Structure Alternative and Cut and Cover Tunnel Alternative, it would be necessary to replace the seawall in approximately its current location because of the physical space constraints due to both the transportation functions and the existing underground utilities in the corridor. In the central waterfront, even with a wide right-of-way, the combined width of the tunnel and corridors for the extensive utility infrastructure do not afford any substantive left-over space. On the north waterfront, where the right-of-way is narrower, the surface transportation uses, which include a streetcar, wide sidewalks, bike paths, four lanes of traffic, and parking, leave no extra space to allow for setting back the seawall.

There are other projects planned for the waterfront, and the City is
Disappointingly, our concerns that we outlined in previous comments have largely not been addressed in this SEIS. Further, the SEIS does not provide forward-looking sustainable features that we expect from a project in Seattle—a national leader in sustainability. Areas that could have been addressed in more innovative and aggressive ways include air vents from the tunnel, habitat along the water’s edge, transit solutions, etc. Given the amount of money spent on design as well as special studies related to the viaduct and seawall replacement project, we would like to have seen more money devoted to sustainable solutions. Given that the waterfront is now designated as critical habitat for endangered Chinook salmon and bull trout we would like to see a more proactive approach devoted to providing real improvements along the water’s edge related to habitat and clean water.

Please add People For to the project’s distribution list, under “Business/Trade/Other Organizations.” Thank you for your consideration of our comments. I can be reached at (206) 382-7007 X215 if you have any questions or concerns.

Sincerely,

Heather Trim
Urban Bays Coordinator

working to provide guidance and policy for those projects to implement additional improvements of the kinds you have mentioned, where feasible. For example, the September 2006 Central Waterfront Master Parks Plan Final EIS from the Seattle Parks Department includes new beaches outboard of the seawall.

C-055-009
Stormwater will be managed in accordance with the applicable stormwater management regulations as described in the Final EIS. Specific BMPs will be identified during the design phase of the project.

C-055-010
In the 2006 Supplemental Draft EIS, only the Elevated Structure Alternative created new overwater coverage. The surface street design for the Elevated Structure Alternative has been revised between Pier 48 and Colman Dock, and there is no longer a new overhanging sidewalk. Both the Cut-and-Cover Tunnel and Elevated Structure Alternatives would replace the Washington Street Boat landing in a similar location and continue to shade Elliott Bay as it does today. Under the preferred Bored Tunnel Alternative, the configuration of the Alaskan Way surface street and the Washington Street Boat Landing would be a part of the Central Waterfront Project, a separate project led by the City of Seattle.

C-055-011
The Final EIS contains more mitigation measures for many areas of the environment. These mitigation measures have been developed with substantial input from people and businesses from the affected areas and are included in Chapter 8.

C-055-012
After publication of the 2006 Supplemental Draft EIS, the Port of Seattle
agreed to the purchase of Pier 48. WSDOT purchased the property in August 2008.

C-055-013
Section 4(f) as provided in 49 USC 303(c) refers to the “use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance.” Elliott Bay is a body of water that provides for a wide range of uses and ecological functions, including navigation, recreation, and habitat for fish and wildlife, but it is not a public park, recreation area, or wildlife refuge and is therefore not regulated as a Section 4(f) facility.

C-055-014
Your request was filled via public disclosure request on February 21, 2007, and March 22, 2007.

C-055-015
Clean Air Fine Particle Rule is an EPA action designating areas with air quality that does not meet the health-based standards established in 1997 for fine particle pollution. Fine particles are particulate matter 2.5 micrometers in diameter and smaller and are also referred to as PM2.5. Currently, the Puget Sound region is in attainment for PM2.5.

Appendix M, Air Discipline Report, of the Final EIS presents potential project effects and mitigation measures with regard to particulate matter.

C-055-016
The project is not intended to thoroughly cleanup the waterfront. Investigations will be conducted to identify contamination during the design phase to plan for protection of project workers and the public during construction and to provide information necessary to make the
design protective of the environment (e.g., avoiding creation of preferential pathways and spreading of contamination, implementing engineering controls, etc.). Information from the investigations would also be available to responsible property owners and/or Ecology, so that they might plan for and implement remediation. The build alternatives will reduce the amount and/or mobility of contaminants along the waterfront. Soil improvement techniques (deep soil mixing and/or jet grouting) will reduce the mobility of contaminants in situ and where excavation occurs, the project will identify and remove contaminants that exceed regulatory criteria whenever they are encountered.

C-055-017
Thank you for this suggestion. Information from this project has been considered in the Final EIS Appendix N, Wildlife, Fish and Vegetation Discipline Report.

C-055-018
Many of the specific items listed in this comment are not part of this project and are being addressed through other agencies. The City of Seattle's Central Waterfront Project continues to examine a variety of ways in which habitat can be improved along the central waterfront. The seawall improvements planned as part of the Elliott Bay Seawall Replacement Project are compatible with and do not preclude these enhancements. Similarly, King County Metro, Sound Transit, and other transit agencies have been closely engaged in the planning process to ensure improvements provided by this project support their long-range plans. Also, note that the Bored Tunnel Alternative does not require air vents.

C-055-019
You will be added to the distribution list for the Final Environmental Impact Statement.
Benefits and impacts of alternatives have been discussed in each EIS on this project (Draft, Supplemental Drafts, and Final). Costs, although not strictly an environmental issue, have also been provided in these documents and through other venues. Mitigation measures for construction have been developed in coordination with business and freight interests in the project area and are included with the Final EIS, Chapter 8. The ranking of project alternatives with other regional transportation improvement priorities has been regularly considered by WSDOT and other transportation agencies in the region.

Potential air quality impacts during the construction period have been analyzed in Appendix M, Air Discipline Report, and summarized in the Final EIS.
It is acknowledged that there will be difficult times for businesses within the immediate impact area and that the City of Seattle will absorb a certain loss in productivity due to increases in congestion. The indirect economic impacts, such as a decrease in jobs because businesses are struggling, within the Puget Sound Region or outside of the Puget Sound Region and the relocation of businesses are subject to many variables that cannot be quantified as a result of the direct impacts due to construction. These indirect impacts, if they occur at all, are expected to be balanced by the influx of construction dollars into the regional economy and by the potential redevelopment of adjoining parcels in anticipation of the new facility.

The cost of congestion is not calculated as a function of the size of a regional economy but as the time lost due to increases in travel time. Some travelers may also choose to alter their choice of destination to avoid travel impacts. The discussion of travel delays presented in the Final EIS accounts for this loss of utility (i.e., selection of alternate or less desirable destinations) for travelers. With the exception of freight mobility, this increase in travel time typically happens during peak rush hour and has the effect of spreading the duration of rush hour. The increase in travel time and loss of utility are converted to dollars based upon lost wages and value of time lost. The discussion of the cost of congestion is presented in Appendix L, Economics Discipline Report, of the Final EIS.
The economic analysis did address City of Seattle and King County revenue generated and lost by the project (parking meters, property tax base, sales tax) that can be tied to elements under the direct control of the project.

The economic analysis did address the impacts to businesses during construction, especially to those businesses in business districts of special concern (Central Waterfront and Pioneer Square); however, the analysis did not analyze whether a particular business would pay more, less, or the same in sales taxes, because predicting the performance of an individual business is beyond the scope of the analysis. See Appendix L, Economics Discipline Report, of the Final EIS for the current economic analysis for the proposed build alternatives.

Probable significant adverse impacts are not expected for either the Port of Seattle or the Ballard/Interbay industrial areas with the exception of a decrease in freight mobility and increase in congestion for truck traffic as they use alternative freight routes. The loss of freight mobility will have a resultant loss in productivity, which is discussed in the Economics Discipline Report of the Final EIS as a cost of congestion. With the exception of mitigation measures to address congestion in the project area, there is little that the project can do to mitigate impacts to businesses that are not located in the immediate construction corridor but rely on the existing roadway network to maintain a thriving business.

The indirect economic impacts, such as a decrease in jobs providing family wages, within the Puget Sound Region or outside of the Puget Sound Region and the relocation of businesses are subject to many variables that cannot be quantified as a result of the direct impacts due to construction. These indirect impacts, if they occur at all, are expected to be balanced by the influx of construction dollars into the regional
economy and by the concurrent redevelopment of adjoining parcels in anticipation of day of opening.

C-056-008
The environmental documents and related information on this project provided to the public gives a complete picture of reasonable choices the lead agencies face and their potential effects. Mitigation for construction impacts has been developed in coordination with business and freight interests along the corridor and will continue to be refined throughout the construction process. Negative effects from construction appear unavoidable, but the lead agencies are committed to minimizing them to the practical extent. These effects have been described for the public and decision-makers, as have the costs of the project.
The lead agencies are well aware of the potential effects on local businesses during construction. The construction transportation mitigation measures described in the Final EIS and Appendix C, Transportation Discipline Report, include many actions and programs to reduce construction impacts and support the local economy. Many of these ideas were presented in general in the 2006 Supplemental Draft EIS and since have been developed in greater detail.

The lead agencies recognize that retrofitting highways, roadways, and bridges is often a viable option to counter earthquake threats. However, unlike other bridges and structures in the area, it isn’t practical to retrofit the viaduct by only strengthening one or two structural elements. Fundamentally, such fixes transfer the forces from one weak point in the structure to another, and the viaduct is weak in too many places. The concrete frames, columns, foundations, and even the soil under the structure don’t provide enough strength by today’s standards. The lead agencies have studied various retrofitting concepts, and all of these concepts fail to provide a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. The lead agencies also determined that retrofitting 20 percent of the viaduct as discussed for the Rebuild Alternative is not reasonable.

If the preferred Bored Tunnel Alternative is selected, closure of the viaduct would be for a short duration (several weeks) during construction. This is one main benefit of this alternative. Probable significant adverse construction impacts are not expected for either the Port of Seattle or the Ballard/Interbay industrial areas with the exception of a decrease in freight mobility/increase in congestion for truck traffic as they use alternative freight routes. The loss of freight mobility will have a
resultant loss in productivity, which is discussed in Appendix L, Economics Discipline Report, of the Final EIS as a cost of congestion.

C-057-004
A detailed discussion of freight generators, freight corridors, and impacts to freight is included in the freight sections of the Final EIS Appendix C, Transportation Discipline Report.

C-057-005
The build alternatives would result in enhanced mobility to activity centers in both the south and north portal areas and beyond, particularly to the SODO commercial and business district and the stadium area. Overall, the infrastructure improvements in the north portal area would improve truck freight mobility and vehicle and pedestrian connections. In turn, these benefits would improve business efficiencies due to the increased circulation near the project area. The build alternatives would contribute to local and regional mobility by providing drivers with an alternative to I-5 and Seattle’s surface streets. The benefits of the Elevated Structure Alternative would not be as substantial as those described for the Cut-and-Cover Tunnel Alternative and Bored Tunnel Alternative.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.
A more in-depth discussion of economic effects is provided in Appendix L, Economics Discipline Report. A more in-depth discussion of mobility, including freight, is provided in Appendix C, Transportation Discipline Report.

C-057-006

The build alternatives would result in enhanced mobility to activity centers in both the south and north portal areas and beyond, particularly to the SODO commercial and business district and the stadium area. Overall, the infrastructure improvements in the north portal area would improve truck freight mobility and vehicle and pedestrian connections. In turn, these benefits would improve business efficiencies due to the increased circulation near the project area. The build alternatives would contribute to local and regional mobility by providing drivers with an alternative to I-5 and Seattle’s surface streets. The benefits of the Elevated Structure Alternative would not be as substantial as those described for the Cut-and-Cover Tunnel Alternative and Bored Tunnel Alternative.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.

Environmental documentation for the project has been prepared in compliance with the National Environmental Policy Act (NEPA) (42 USC 4322(2)(c)) and the State Environmental Policy Act (SEPA) (Ch. 43.21 C
RCW). The potential effects on low income and minority populations are
discussed in Environmental Justice section of the Final EIS Appendix H,
Social Discipline Report. A more in-depth discussion of economic effects
is provided in Appendix L, Economics Discipline Report.

C-057-007
Discussions related to economic impacts are included in the Final EIS
and in Appendix L, Economics Discipline Report.

C-057-008
The lead agencies plan to maintain access to businesses and
residences throughout construction. Temporary limitations and any
required changes to access during construction will be mitigated to the
extent practicable. Mitigation measures for parking, pedestrian and
vehicle access, and business assistance are discussed in Chapter 8 of
the Final EIS. The project team will continue their coordination and
mitigation activities with local businesses and residents, freight/delivery
companies, the Port of Seattle, neighborhood groups, and other affected
groups.

C-057-009
Heavy vehicles constitute approximately 6 percent of the Average Daily
Traffic (ADT) volume in the northbound direction. The Bored Tunnel
grades do not exceed 4 percent and would have only a marginal effect
on truck speeds. The Cut-and-Cover Tunnel Alternative south of the
Battery Street Tunnel south portal would have grades of 6.5 percent
(steepest grade), but this section is only about 800 feet in distance.

C-057-010
At this time, transporting hazardous materials in the Battery Street
Tunnel is prohibited. The Final EIS notes that hazardous and flammable
cargo would be prohibited in the Bored Tunnel and Cut-and-Cover
Tunnel all day. Currently hazardous/flammable materials can be transported on downtown city streets without restriction, as long as the trucks do not exceed 30 feet in length. Vehicles exceeding 30 feet in length carrying hazardous or flammable materials wishing to travel through downtown Seattle would continue to use I-5 or Alaskan Way. This practice is not expected to change as a result of Alaskan Way Viaduct Replacement Project construction activities.

C-057-011
The Seattle Monorail Project’s Green Line is no longer being considered for implementation, and therefore cannot be assumed as a mitigation strategy to either complement or replace the project. However, other high-capacity transit developments have occurred since the 2006 Supplemental Draft EIS was published. The most important of these is the voter approval of Metro’s Transit Now initiative, which provides additional bus transit services in the same corridors served by the original Green Line. This service, called RapidRide, provides faster and more reliable service, more times of the day, from West Seattle, Ballard/Interbay, and North Seattle.

The Alaskan Way Viaduct Replacement Project team will continue to work closely with King County Metro and other transit providers to support the planning and implementation of expanded transit services to enhance the mobility of travelers during project construction. More information about congestion relief strategies for construction can be found in Appendix C, Transportation Discipline Report, of the Final EIS.

C-057-012
A retrofit alternative has been suggested many times and has been carefully reviewed by WSDOT and independent organizations such as the American Society of Civil Engineers. In brief, a retrofit that approaches the design goals of the project (needed to protect public safety) cost nearly as much as a new structure and does not remedy
other serious deficiencies such as narrow lanes and shoulders. Expecting global warming or other issues to eliminate the need for this critical transportation facility is speculative and not responsible planning.

C-057-013
The cost estimates and funding for the project have continued to be defined and are further described in Chapter 2 of the Final EIS.

C-057-014
FHWA, WSDOT, and the City of Seattle have conducted an extensive level of design and analysis, as shown in the Final EIS. The project team is committed to working with organizations such as yours to make the Alaskan Way Viaduct Replacement Project successful.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments supporting configuring SR 99 under Western and Elliott Avenues. We also note your concerns related to the "over Western and Elliott" configuration. With the Cut-and-Cover Tunnel Alternative, SR 99 would be constructed under Elliott and Western Avenues. The Elevated Structure Alternative no longer proposes replacing the current Western and Elliott overpass with a new elevated structure. Instead the existing structure in this area would be retrofitted. This proposal would lower costs, and would not noticeably alter existing conditions in regards to noise, dust, and views.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support that it has received from diverse interests. With this alternative, the Elliott/Western Connector is a separate project. Please refer to the Final EIS for current information.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel's north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

As part of the project's planning and design process the lead agencies have met with residents, business owners, property owners, and other
stakeholders in the Belltown neighborhood to provide information about the project - including potential effects - and to solicit ideas about how to minimize and mitigate these effects. We appreciate the cooperation of Belltown stakeholders and will continue to meet with them throughout the project to ensure that the project's planning and design addresses the Belltown neighborhood concerns.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99 during construction and it can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the three alternatives.
We recognize your endorsement of the Belltown Business Association letter (C-058). Please refer to C-058 to view the responses to the letter.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments expressing support for the under Elliott and Western option, and concern about the over Elliott and Western option. The option to configure SR 99 under Elliott and Western Avenue is paired with the Cut-and-Cover Tunnel Alternative. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. With this alternative, the Elliott/Western Connector is a separate project.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments related to including a lid. The alternatives have changed with the 2010 Supplemental Draft EIS to include a lid in the range of 250 feet in length only with the Cut-and-Cover Alternative. If this alternative is selected, the design process will be led by Seattle and involve neighborhood interests. However, the lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support that it has received from diverse interests.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Specifically, compared to the Cut-and-Cover Tunnel and Elevated Structure Alternatives, it avoids substantial closure of SR 99.
during construction and can be built in a shorter period of time than the other two alternatives. Extended closure of SR 99 would be more disruptive to Seattle and the Puget Sound region. Chapters 5 (Permanent Effects) and 6 (Construction Effects) in the Final EIS provide a more in-depth comparison of trade-offs for the build alternatives.
June 1, 2004

Ms. Allison Ray
WSDOT
Alaskan Way Viaduct and Seawall Replacement Project Office
999 Third Avenue, Suite 2424
Seattle, WA 98104

Re: Comments on Alaskan Way Viaduct Draft Environmental Impact Statement (DEIS)

Dear Ms. Ray:

Puget Sound Energy (PSE) appreciates the opportunity to provide comments on the Alaskan Way Viaduct and Seawall Replacement Project DEIS. PSE is the largest energy supplier (natural gas and electricity) in the State of Washington. We provide natural gas services to approximately 110,000 customers within the City of Seattle. PSE has a gas service base of almost 650,000 customers in six counties.

PSE recognizes that the Alaskan Way Viaduct and Seawall Replacement Project is an extraordinary undertaking with national and regional significance. PSE strives to maintain a positive, professional and productive relationship with all the customers we serve. The relationships we have with the City of Seattle, WA State Department of Transportation (WSDOT) and USDOT's Federal Highway Administration (FHWA) are extremely important to PSE. We view these partnerships as critical to executing the work on the Viaduct and providing safe, reliable, efficient and cost-effective energy services to our customers. We support the work of these entities and the various stakeholder groups working to accomplish this project.

As part of PSE’s service obligation, we are required to maintain and reinforce our natural gas system as the need arises. New growth increases demand for energy services and associated infrastructure, while decreasing available space for utility infrastructure creates hardships on our system. As part of any major transportation project requiring utility relocation, PSE must have the ability to access and maintain safe, immediate and reliable service to our customers. To do otherwise puts the reliability of our natural gas system, the general public, and our customers at risk.

Puget Sound Energy is among many utilities that have facilities on, under, or near the Viaduct and Seawall. In addition to the Viaduct's role as a major, regional transportation thoroughfare, the Viaduct corridor also acts as a major "utilidor" for many utilities (including water, sewer, steam, natural gas, telecommunications, fiber optic cables, and electricity).

Puget Sound Energy has natural gas mains, services and a supply line located under and directly proximate to the Viaduct. A 12" diameter natural gas supply pipeline serves PSE customers throughout Seattle and parts of King and Snohomish counties. Multiple other distribution lines serve Seattle businesses and households along the waterfront and neighboring areas. PSE has no facilities attached to the Viaduct.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. The Final EIS evaluates three build alternatives: Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs.

Construction activities within each traffic stage are summarized in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report.

The project will continue to coordinate closely with all of the utility providers, both public and private.

The project team has undertaken a coordinated permitting effort to ensure project permits and approvals are obtained in a timely manner. This includes:

- Working closely with the utility and design groups to ensure that appropriate permits are received during the life of the project
- Incorporating permitting in the project base schedule
- Working closely with the project schedulers to ensure permits are obtained in advance of all utility and construction work
- Holding early pre-application meetings with permitting agencies allowing early review of design plans and environmental documents
- Tracking permit requirements, permits and permit commitments in a project-wide database

Potential utility relocations are discussed in Chapter 6 of the Final EIS
Appendix K, Public Services and Utilities Discipline Report.

Although costs are an important part of project planning and decision-making, they are not part of the NEPA environmental review process. However, overall project costs, which includes costs associated with utility relocation, are discussed in the overall project description and are certainly part of the lead agency decision making considerations. Costs of relocating private utilities located in public rights-of-way are generally borne by the utility and are not included in the project costs paid for with public monies.

B-001-004
The lead agencies do not expect private utilities to subsidize project construction costs. The responsibility of private utilities located within public rights of way has been clearly defined by law and in the courts. Fulfilling that responsibility does not constitute a subsidy. The lead agencies have coordinated directly with Puget Sound Energy over time on construction planning and will work to minimize project effects as is practical and feasible.

B-001-005
The project’s proposed construction sequencing, schedule, and construction methods for the alternatives are discussed in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report. The development of the utility plans has occurred with input resulting from ongoing coordination with both the private and public utility providers to reduce the number of utility relocations to the extent possible.

B-001-006
The utility design has been developed with extensive coordination between the utility providers and the utility engineers. PSE has
participated in this coordination. It is anticipated that such coordination will continue in future design phases as the utility designs are finalized. The need to have a PSE representative on site during construction will be determined during future design phases and reflected in project specifications.

B-001-007
PSE, along with other affected private utility providers, has been and will continue to be included in meetings and other direct communications related to the utility relocation planning. The project utility design team is well aware of the critical need to maintain access to utility lines for continued operation and maintenance. These needs will be reflected in the design of the final utility locations.

B-001-008
The need for continuous operation of utility lines to existing customers is a baseline consideration in the development of utility relocation plans. PSE and other affected utility providers have been and will be included in the coordination and development of utility relocation plans through meetings, e-mail with staff, and discussions relating to standards criteria. PSE and other utility providers will continue to be involved in design and construction issues as the design plans proceed.

B-001-009
A consolidated utility relocation plan is listed in Final EIS Appendix K, Public Services and Utilities as a potential measure to mitigate the effects of the utility relocation process. PSE and other affected utility providers have been and will be included in the coordination and development of utility relocation plans through meetings, e-mail with staff, and discussions relating to standards criteria. PSE and other utility providers will continue to be involved in design and construction issues as the design plans proceed.
The project design team will complete the design of the project to a 30 percent to 60 percent design level, including the identification of affected utilities. As part of the design process, the design team will notify each potentially affected utility that relocation or other protection measures for their facilities will be required. A final utility relocation plan will be developed with the assistance of the affected utilities. However, each utility will be responsible for the final design and construction of the relocations or protection measures required for their facilities. As part of that effort, private utilities will be responsible for identifying and procuring any operating rights, easements, or franchise rights necessary to adjust their facilities.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments and recognize your concerns related to analysis of the options considered for the area north of Battery Street Tunnel. Numerous options were thoroughly analyzed for this stretch of SR 99. The configuration that has been chosen as part of the preferred alternative would build Aurora Avenue at-grade between Denny and John Street. John, Thomas, and Harrison streets would be connected as cross streets with signalized intersections on Aurora Avenue. Mercer Street would become a two-way street. These improvements would greatly enhance connections between the South Lake Union neighborhood, and the lower Queen Anne neighborhood.

In the 2004 Draft EIS, both the Partially Lowered Aurora and Lowered Aurora options that were included were thoroughly and thoughtfully analyzed at the same level of detail. This analysis included a description of the opportunities and constraints in Chapters 5 through 9 of the 2004 Draft EIS for each specific alternative, and descriptions of potential construction methods and effects in Chapter 10. As the project evolved, further analysis of alternatives was included in the 2006 and 2010 Supplemental EISs. Please see Chapter 3 in the Final EIS for a description of the current configuration for each alternative in the north portion of the project area. Chapter 5 of the Final EIS discusses the permanent effects of the alternatives.
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Impact of the proposed action; 2) any unavoidable adverse environmental impacts of the proposed action; 3) alternatives to the proposed action; and 4) any irreversible and irretrievable commitments of resources which would occur if the proposed action were implemented. ROW 432-1:0311(11)(d).

SEPA specifically requires an EIS to "devote sufficiently detailed analysis to each reasonable alternative to permit a comparative evaluation of the alternatives (including the proposed action)." WAC 197-11-4406(v).

In this case, the EIS should provide the same level of analysis for impacts of the Lowered Aurora Option and the Surface Option as it does for the Widened Mercer Underpass Option. If WAC 197-11-4406(v). The EIS does not satisfy this requirement and therefore provides no basis for a comparative evaluation of the impacts of the alternatives.

A more thorough and complete analysis of the Lowered Aurora Option will show improved street grid connections which will have a tremendous impact on this part of Seattle and its neighborhoods.

Scoping

During the scoping process, many interested parties, including neighborhood organizations, environmental groups, property owners, and urban design professionals, suggested that the replacement of the Alaska Way Viaduct provides an excellent opportunity to reverse a devastating, decades-old decision. That decision was to sever the South Lake Union neighborhood from the Lower Queen Anne/Uptown neighborhood by building a surface highway with inadequate and unsightly East-West connections. The street grid was destroyed. During the early phases of studying the Alaska Way Viaduct, it became clear that the street grid could be reestablished by simply lowering Aurora, closing the diagonal broad Street, and reconnecting the surface streets.

We were chastened to find that this DEIS provides little or no analysis of the Lowered Aurora option, despite repeated assurances throughout the scoping process that this option would be carried forward. Furthermore, there has been little analysis of the surface street (with signalized Roy, Republican and Harrison Street Ax) option. While it is clear that each of these options has impacts, the DEIS provides no comparative analysis of these impacts, and therefore, provides an inadequate basis for making a project decision with respect to the North Segment.

The only comparison between the Lowered Aurora and Widened Mercer Underpass alternatives appears to acknowledge some of the relative benefits of the Lowered Aurora alternatives. In chapter 6, section 12, the DEIS includes the following comparison between these two sets of improvements:

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“...the North end of the project area, SR 99 is currently a bottleneck for people and traffic moving between neighborhoods to the east and west. The Widdowed Mercer improvements would benefit these neighborhoods by improving east-west connections across SR 99 at Mercer and Thomas Streets. The Lowered Aurora/SR 99 option has an even greater potential for improving connections, since up to five streets currently cut off by SR 99 would be reconnected via bridges.” (Emphasis added).

While acknowledging that there may be benefits of one option over another, the DEIS makes no effort to distinguish the alternatives in the North segment through sound analysis. In this respect, the DEIS falls short.

It is also interesting to note that this limited discussion of the apparent benefits of the Lowered Aurora option appears only in conjunction with the Aerial Alternative along the Waterfront segment. Of course, the benefits of the Lowered Aurora option (and other benefits that have not yet been analyzed) would apply equally with respect to the Tunnel Option and the Bypass Option.

Summary of Unanalyzed Impacts and Likely Lowered Aurora Option Analysis

As indicated, the DEIS falls short of SEPA requirements because it does not adequately identify Project impacts of any alternative other than the Widdowed Mercer Underpass. Accordingly, the DEIS should be revised to adequately reflect the impacts associated with alternatives other than the Widdowed Mercer Underpass Option as detailed below.

In order for the Project Team to make the best choices among alternatives North of the Battery Street Tunnel, it is necessary that the various alternatives be fully analyzed. The improved street grid, connections attendant to the Lowered Aurora option, as acknowledged in chapter 6, would have a tremendous impact on the part of Seattle and its neighborhoods.

First, the Lowered Aurora alternative would provide a variety of options for vehicles trying to move east-west across Aurora. This is important for the future of the Mercer Street Corridor, because it would relieve Mercer Street of most of its traffic, which is not destined for Interstate 5. In other words, vehicles taking local trips could avoid Mercer Street altogether.

Second, the Lowered Aurora alternative would provide many more, and much more usable and pleasant, options for pedestrians crossing Aurora between the Seattle Center and South Lake Union. Under the widdowed Mercer alternative, pedestrians would cross only in a busy lane at Mercer Street, or across a steep (14 to 18 percent grade) overpass at Thomas Street. The Lowered Aurora option would provide up to five, level grade pedestrian crossing options.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
The information provided in environmental documents for this project is appropriate for the decision at hand. The alternatives presented in the 2004 Draft EIS and the 2006 and 2010 Supplemental Draft EISs represent a reasonable range of alternatives to meet the purpose and need of the project, as mandated by the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). Similarly, a reasonable range of construction approaches has been described and evaluated in these documents. The content and level of analysis conducted for these documents is adequate to inform the public and decision makers of the possible effects resulting from the project or from inaction.

Please see this Final EIS for discussion of impacts and proposed mitigation measures.
In response to comments such as this, the 2006 Supplemental Draft EIS evaluated three new construction approaches, including closing the SR 99 to through traffic, which present a range of construction durations. As the project evolved, an additional construction approach for Bored Tunnel Alternative was presented in the 2010 Supplemental Draft EIS.

The Final EIS provides information on construction of the preferred Bored Tunnel Alternative as well as the Cut-and-Cover Tunnel and Elevated Structure Alternatives, and how adverse effects can be minimized or mitigated. The information provided accurately describes potential impacts during construction for each of the three alternatives. The project design cannot be finalized until after the environmental process concludes.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.

B-003-004

The 2004 Draft EIS adequately describes construction conditions and the potential for adverse effects on local businesses. Factors determining failure or success of a business are very complex under any circumstance and it is impossible to predict specific project effects to businesses, such as probably business failure rate, without considerable speculation. While construction will be underway throughout the corridor, from the perspective of a individual business the level of activity will not be constant. Mitigation measures for businesses will be provided and are discussed in Chapter 8 of the Final EIS.

At this point in project development, there is no basis for predicting a vacancy rate during construction. The 2006 Supplemental Draft EIS expands upon this discussion by examining a range of construction approaches and the 2010 Supplemental Draft EIS describes an additional construction approach for the Bored Tunnel Alternative. The Final EIS describes current construction plans and sequencing. Coordination and outreach to businesses and residents in the project area will continue through the design and construction of the project.
Mitigation measures for the preferred alternative, consistent with those described in the 2004 Draft EIS and 2006 and 2010 Supplemental Draft EISs, are described in further detail in Chapter 8 of the Final EIS. Further, the lead agencies have provided information on mitigation as it has been developed through on-going public meetings and coordination.

We appreciate your concerns regarding pedestrian access in the north waterfront area. Updated pedestrian volumes were collected by video along the Alaskan Way surface street in downtown Seattle in 2006. The purpose of these counts was to quantify pedestrian activity in the summer season along the waterfront for use by the project team in assessing transportation conditions, developing mitigation programs, completing a Final EIS and furthering project design. To account for pedestrian volumes in the north waterfront area, a count station was located at Pier 66. Data collected for this effort confirms that pedestrian activity on the waterfront promenade is substantially higher in the summer, particularly during summer weekends. The updated pedestrian counts have been included in the Final EIS.
As discussed in B-003-003, the 2006 Supplemental Draft EIS was prepared, in part, to more fully evaluate construction effects. Chapter 7, Question 16 of the 2006 Supplemental Draft EIS presents the expected effects to the local and regional economy during construction. In addition, the Economics Technical Memorandum (Appendix P of the 2006 Supplemental Draft EIS) describes the effects associated with displacement of customers from the construction corridor. Since that time, the alternatives and the construction approach for each of the alternatives have been refined. Details about the Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure construction plans are presented in Chapter 6 of the Final EIS.

A range of reasonable mitigation measures were presented in the 2004 Draft EIS and updated in the 2006 and 2010 Supplemental Draft EISs. These mitigation measures have been developed in more detail and are discussed in Chapter 8 of this Final EIS.

After the 2004 Draft EIS was published, your comments along with others led to additional analysis and revised alternatives presented in the 2006 and 2010 Supplemental Draft EISs. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for the current information and additional traffic analysis.
Since this comment was submitted, the project has published two Supplemental Draft EISs. The Supplemental Draft EIS published in July 2006 addressed additions to the project north of Battery Street Tunnel, modifications to the alternatives, and additional construction approaches. The Supplemental Draft EIS published in October 2010 addressed the permanent and construction effects of the Bored Tunnel Alternative.
After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the No Build, Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS.

The Bored Tunnel connects Thomas Street in a different manner than was proposed in 2004. Please refer to Chapters 3 and 5 of the Final EIS for current information. Details on transportation can be found in Appendix C of the Final EIS.
Allison Ray  
May 27, 2004  
Page #2

The Seattle Times Company would urge the project team to consider the extremely negative impact a Thomas Street Overpass would have on the operation of our Thomas Street facility.

Thank you for your consideration.

Sincerely,

[Signature]

Jill Mackie  
Director of External Affairs  
JM/ea

cc: Carolyn Kelly, Seattle Times President and COO  
Frank Paiva, Seattle Times Vice President of Operations  
Eric Tweet, City of Seattle, Department of Transportation
The S. Holgate Street to S. King Street Viaduct Replacement Project became a separate project in 2007 and includes the intersection at S. Atlantic Street. Construction of the S. Holgate Street to S. King Street Viaduct Replacement Project began in July 2010. WSDOT also completed the SR 519 S. Seattle Intermodal Access - Royal Brougham project in June 2010.

For updated information and alternative descriptions for the Alaskan Way Viaduct Replacement Project, please see Chapter 3 of the Final EIS. Traffic analysis, including the S. Royal Brougham Way intersection, is discussed in Chapter 5 of the Final EIS.
The interchange and ramp configuration at S. Atlantic Street and S. Royal Brougham Way has been revised since the publication of the 2004 Draft EIS. The project plans to maintain S. Atlantic Street at-grade and provide an eastbound left turn to First Avenue S. Please see the Final EIS for a current description of the proposed alternatives.

Please see the Final EIS and Appendix C, Transportation Discipline Report, for current information about parking. Mitigation measures are described in Chapter 8 of the Final EIS.

WSDOT completed the SR 519 S. Seattle Intermodal Access - Royal Brougham project in June 2010. Please see the Final EIS for current information about the configurations of the proposed alternatives.
2. Alternate locations for ramps and surface street access.

3. A below-grade interchange instead of an aerial interchange. This would shorten ramp distances which would improve local access and significantly reduce the amount of aerial structure. While water table issues may well be of concern, it seems reasonable to assess this option for its costs and benefits and compare it to the proposed alternatives.

4. A single-point intersection or other configurations for the interchange that would minimize ramping on streets in order to preserve local access and reduce the amount of elevated structure.

5. As noted above, consolidate a surface interchange at Royal Brougham Way?

Please review and consider alternatives to these issues that we have raised.

Your consideration and review is most appreciated.

Sincerely yours,

[Signature]

[Name: John W. King]

[Title: Manager]

JWK: wjw
Cc: TDA, Inc.
The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.
The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

Accessibility is the second issue. If parking is available but traffic is still impeded, people will shop elsewhere. Even the perception that the area is hard to reach will keep customers away. Therefore, it is important to keep traffic flowing and to gain a budget to aggressively promote this fact.

We are more than willing to work with you if you want feedback on the best way to address these critical issues. The livelihoods of a number of businesses and employees depend on how these issues are addressed.

Thank you for your consideration.

Regards,

Sheila McKinnon
President

Theresa Schneider
Vice President
The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city's parking resources. SDOT's studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

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Accessibility is the second issue requiring full consideration. If parking is available but traffic is restricted, we will lose our customers. Even the perception that the area is hard to reach will keep customers away. Therefore, it is important to keep traffic flowing and to again have an adequate budget to aggressively promote accessibility.

The businesses of the Western Avenue Merchants Association would be more than willing to work with you to provide feedback on the best way to address these issues that are critical to our survival. The livelihoods of a number of businesses and employees depend on how these issues are addressed.

Thank you for your consideration.

Regards,

Theresa Schneider
President, Western Avenue Merchants Association

Member Companies:
- Continental Furniture
- Thomasville Home Furnishings of Puget Sound
- It's Gotta Go
- La-Z-Boy Comfort Center
- Ligne Roset
- Mandarin Asian Antiques
- Inform Interiors
- Swedish Heirlooms
- McKinnon Furniture
- Brasswoods Furniture
- Deep Interior
- LaBrash Fine Oriental Carpets
- Modolo's Consignment Home Furnishings
- Driscoll Robbins
- Big People Toys Asian Antiques
- Arte Forma Designs
- Mitchell Gold @ HOUSE
- Danila
- Fine Furniture Gallery
- Iron Design Center
Thank you for your continued involvement in the project. The project team has continued to work with the Seattle Mariners and the public as the project design has evolved. Please also see the responses to your letter on the 2010 Supplemental Draft EIS.

In June 2010, WSDOT completed the SR 519 S. Seattle Intermodal Access - Royal Brougham Project, which improved mobility and pedestrian safety around SR 519. That project addressed some of the concerns raised in this comment. The construction of the S. Atlantic Street intersection is now part of the S. Holgate Street to S. King Street Viaduct Replacement Project. This project began construction in the summer of 2010. Please see the Final EIS for current information on the ramp configurations in the south project area.
A Massachusetts Street interchange was examined during the original screening process as both a stand-alone interchange and as part of an integrated system. The main reasons for not pursuing an interchange at Massachusetts Street include the following:

- The SIG railyard is located between SR 99 and Colorado Street.
- There is a need for a more significant aerial structure (due to the railyard).
- High costs are associated with potential right-of-way and/or rail track relocation.
- It would provide a less direct connection to/from SR 519.

This location is within the S. Holgate Street to S. King Street Viaduct Replacement Project boundaries.

Construction will include coordination with adjacent businesses and residents, such as the Seattle Mariners, to ensure mitigation of construction impacts. Light and glare effects on Safeco Field are likely only if high intensity lighting is located on very high supports. This potential impact can be mitigated by designing construction lighting at an intensity and elevation that will ensure no spillover to seating and playing areas.

Please see Chapter 6 of the Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, for current information on the construction plan for each alternative. No pile driving is currently planned in the vicinity of Safeco Field.

The City of Seattle Department of Planning and Development typically
grants temporary noise variances to construction projects with nighttime work activities if there is no practical means to work within the City noise ordinance. The long duration and unique nature of the Alaskan Way Viaduct Project requires an extended noise variance from the City. Obtaining this type of variance involves a public hearing process that influences the final decisions and stipulations made by the City, which sets forth noise mitigation measures that the contractor is required to meet.

B-008-006
Pedestrian access will be maintained at all times during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Any sidewalk or the Marion Street pedestrian bridge that would be removed to accommodate construction activities will be replaced with a temporary facility in a nearby location that provides sufficient capacity to accommodate pedestrian demand.

B-008-007
Construction-related effects on traffic in the stadium area have been evaluated in greater detail since the release of the 2004 Draft EIS and are described in the Final EIS. Additionally, Chapter 8 of the Final EIS describes mitigation measures identified to assist in managing traffic during the construction period.

B-008-008
The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number
of strategies to offset the loss of short-term parking in this area, including
new or leased parking and the increased utilization of existing parking.
Although the mitigation measures would be most needed during
construction, many of them could be retained and provide benefits over
the longer term. Specific parking mitigation strategies have not yet been
determined, but the project has allocated $30 million for parking
mitigation. The parking mitigation strategies will continue to evolve in
coordination with the project and community partners. Parking measures
under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront
  piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading
  activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide
  frequent parking updates
- Establish a construction worker parking policy that is implemented
  by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6
of the Transportation Discipline Report (Appendix C of the Final EIS) for
additional information.

B-008-009
The lead agencies plan to maintain access to businesses and
residences throughout construction. Temporary limitations and any
required changes to access during construction will be mitigated to the
extent practicable. Mitigation measures for parking, pedestrian and
vehicle access, and business assistance are discussed in Chapter 8 of
the Final EIS. The project team will continue their coordination and
mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

**B-008-010**

Mitigation measures for dust (particulate matter) are discussed in Chapter 8 of the Final EIS and Appendix M, Air Discipline Report. Measures include:

- Spraying exposed soil with water or other dust palliatives to reduce emissions of PM10 and deposition of particulate matter.
- Covering all trucks transporting materials, wetting materials in trucks, or providing adequate freeboard (space from the top of the material to the top of the truck) to reduce particulate emissions during transportation.
- Removing particulate matter deposited on paved public roads to reduce mud and resultant windblown dust on area roadways.

The lead agencies will continue coordination and mitigation activities with business, residential, and other affected groups as project construction moves forward.

**B-008-011**

Lighting, including the intensity and mounting elevation, on SR 99 will be designed to minimize impacts on adjacent uses, particularly Safeco and Qwest Fields. Specific coordination with Safeco Field will be undertaken to ensure that the seating areas are not substantially affected by glare from the roadway light sources.

**B-008-012**

In June 2010, WSDOT completed the SR 519 S. Seattle Intermodal Access - Royal Brougham Project, which improved mobility and
pedestrian safety, and addressed some of the concerns raised in this comment. Construction of the S. Atlantic Street intersection is now part of the S. Holgate Street to S. King Street Viaduct Replacement Project. This project began construction in the summer of 2010.

Pedestrian access will be maintained during construction of the Alaskan Way Viaduct Replacement Project, although temporary detours will be needed in some locations. Please see the Final EIS for current information on access, pedestrian safety, and mitigation measures.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments related to a suggested undercrossing of Elliott and Western Avenues. Because the project has evolved since 2004, please see the current alternatives analyzed in the Final EIS.

May 12, 2004

Allison Ray  
Environmental Coordinator  
WA Dept. of Transportation  
999 3rd Ave, Ste 2424  
Seattle, WA 98104

Re: Potential Alternate Elevations and Routing for the Alaska Way Viaduct Replacement Tunnel Alternative

Dear Ms. Ray:

As a follow-up to participating in the City’s Waterfront Charrette, the MAKERS + Friends team would like to draw your attention to two ideas regarding the Alaska Way Viaduct Tunnel Alternative:

1. An alternate elevation between Pike/Pine and the Battery Street Tunnel.
2. Routing the northbound lanes under Western Avenue.

Alternative Elevation between Pike/Pine and Battery Streets

In the existing Tunnel/Alternative, SR 99 surfaces between Pike and Pine and continually increases in elevation to provide adequate clearance over the Railroad, Elliott, and Western Avenues.

Our team suggests tunneling underneath Elliott and Western Avenues rather than crossing these arterials as an elevated structure, as shown in the following illustration. (Our alternative would not affect the elevation gain required for Railroad clearance).
We believe tunneling under Elliot and Western Avenues better aligns with the City’s Central Waterfront Plan goals and would provide the following advantages:

- Improve the visual and physical connection between downtown and the waterfront.
- Provide development opportunities on the blocks occupied by and adjacent to the existing and currently proposed elevated structure.
- Increase tax base revenues available to the City of Seattle.
- Improve driving conditions by decreasing the SR 99 road slope to 5% grade after railroad clearance.

This option places SR 99 at a lower elevation at the Battery Street Tunnel entrance and would likely require reworking the portion of the tunnel between Battery Street and Second Avenue. Although this (and other potential issues) could increase this option’s costs, we believe its potential advantages warrant its consideration.

Routing Northbound Lanes under Western Avenue

The Tunnel Alternative currently follows the approximate route of the existing Alaska Way Viaduct and will require closing the existing viaduct during some construction phases. As is illustrated, our team suggests placing the northbound lanes in a tunnel under Western Avenue, which has the potential to improve construction phasing, on- off-ramp alignment, and overall road slope.

B-009-002
The placement of the northbound lanes of SR 99 in a tunnel under Western Avenue and connecting to Battery Street Tunnel is not a viable alignment due to adverse effects to historic buildings, tight corners, and steep grades and therefore was not considered.
May 12, 2004
Page 3

Thank you for considering our suggestions to improve the Alaska Way Viaduct Tunnel Alternative. Do not hesitate to contact us if you need more information or would like to discuss this further.

Sincerely,

[Signature]

Jill Bassuk and Pietro Potestà
MAKERS + Friends, Seattle Central Waterfront Charrette Team 7

Cc:  Bob Chandler, SDT Strategic Advisor
     Steve Pearce, SDT Strategic Advisor
     Barbara Wilson, Planning Commission Analyst
     John Rahaim, DPD Executive Director
     Robert Scully, DPD Urban Designer
     Maureen Sullivan, WSDOT Project Manager
Since the publication of the Draft EIS in 2004, the project has evolved. The "south end" portion of the project referred to in this comment letter is now part of the S. Holgate Street to S. King Street Viaduct Replacement Project. Construction of this project began in the summer of 2010. During the planning of the S. Holgate Street to S. King Street Viaduct Replacement Project, the lead agencies coordinated closely with BNSF to develop a design and construction approach that maximizes rail operations and minimizes effects to BNSF. Please see that project's Environmental Assessment, published in June 2008, and the Finding of No Significant Impacts (FONSI), published in February 2009, for more information.

The lead agencies will continue to coordinate with BNSF on the Alaskan Way Viaduct Replacement Project construction as needed.
In any scenario the Tail Track will be potentially subjected to increased at-grade crossing activity by both vehicles and pedestrians. Careful attention must be exercised in progressing the design to ensure the complete separation of pedestrians from the Tail Track so that a serious safety condition is avoided.

BNSF will continue to work with the AWV design team until a preferred alternate is developed and selected that meets the needs of all of the stakeholders. Please contact Trent Hudson, Manager Engineering, at (206) 625-6153 to further discuss BNSF's comments.

Very Truly Yours,

[Signature]

Ronald D. Jackson
General Manager
Northwest Division
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Construction activities, especially viaduct demolition, along the central waterfront would interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. The project team has met numerous times with the businesses in the central waterfront to prepare them for the upcoming construction and discuss a variety of mitigation measures. These mitigation measures are discussed in Chapter 8 of the Final EIS.

The 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS acknowledge that the proposed project may result in opportunities for redevelopment created by removing the viaduct. This may occur under both the Bored Tunnel and Cut-and-Cover Tunnel Alternatives. It is also acknowledged that substantial changes would occur in the relationship between the waterfront and upland properties leading to the downtown core. To the extent that the existing viaduct has been perceived as a barrier to waterfront uses, new development on vacant or under-used property or redevelopment may take place around the new Alaskan Way surface street. However, no development within the existing viaduct right-of-way is proposed as part of the proposed project.

It is anticipated that any potential new development would be consistent with zoning designations for this area. Presently, most of this area is
within the City's DH2 (Downtown Harborfront), PMM 85 (Pike Market Mixed) and DMC 160 (Downtown Mixed Commercial) zones. Residential use is a permitted use in both the PMM and DMC zones, and limited residential uses currently occur in this area. Other permitted uses within these zones include a variety of retail, office, restaurant, and entertainment uses.

The proposed project, however, would be only one of a number of influences that will likely determine the exact mix of development that may take place in this area. The City is currently studying the waterfront area as part of its Central Waterfront planning efforts, and the results of these studies will also guide future uses there. Other important factors would include market and economic conditions which may, or may not, favor new residential development. If new residential development occurs, it will be required to comply with City land use and zoning regulations.

B-011-004
Thank you for your comment regarding the Water Taxi. The alternatives analyzed in the 2004 Draft EIS did not include items other than those directly related to replacement of the existing viaduct. Since the Draft EIS was published in 2004, the Water Taxi operations have been expanded and are now operated by King County.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
Ray
June 1, 2004
Page 2

major pedestrian corridor to the waterfront connecting hundreds of people to their front yard and recreation area. It doesn’t seem like the right thing to do to create more of a barrier to the waterfront than already exists. In fact, this project should improve the connection. Have you reviewed the Growing Vine Street Plan to see that the community has planned for a major pedestrian connection to the water at Vine Street? How will the proposed sea wall construction and traffic patterns impact or support this plan?

Getting the traffic into the Battery Street Tunnel is a design problem. We do not want an elevated structure that makes the situation worse than already exists. Did you notice that the Belltown Neighborhood Plan identifies the intersection of 1st and Battery as “view point”? Not only is there a view corridor to the water, but the amount of street area around and including the triangular piece of land which, I think, is owned by City light, amounts to nearly three acres. This amount of open space lets the sun into the heart of Belltown. Pedestrians should be able to flow pleasantly down to the waterfront from this location. What are the negative impacts of the tunnel entrance design on this view point and the pedestrian connection to the waterfront? How can they be mitigated?

Western Avenue will be the major pedestrian connection between the new Sculpture Park and the Pike Place Market. Hundreds of residential units front on this street and will use it daily. How will your plans for Western Avenue accommodate this increased pedestrian traffic considering both safety and the quality of the experience?

Remember, we will soon forget how much the project cost but we will live with the results for decades. Don’t miss this once-in-a-lifetime opportunity by taking shortcuts that we will all regret for the rest of our lives.

Sincerely

Carolyn Geise, FAIA
Since the publication of the Draft EIS in 2004, the project has evolved. The City of Seattle is leading separate projects to improve Mercer Street between Elliott Avenue W. and Fifth Avenue N. and from Dexter Avenue N. to I-5, which will accommodate two-way traffic. These improvements will coordinate roadway design and construction work with the City to improve Mercer Street between Fifth Avenue N. and Dexter Avenue N.

The Final EIS and Appendix C, Transportation Discipline Report, contain details about the current alternatives, traffic routes and detours during the construction period, and mitigation measures.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project.

To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

As with many aspects of project planning and design, the lead agencies must balance the beneficial and negative affects of alternatives for everyone in the project corridor, whether they are walking along the waterfront at street level, or traveling through on the viaduct above. Design and planning has and will continue to emphasize ways to make the alternatives fit in with surrounding neighborhoods, including minimizing potential effects both to views and to the overall aesthetic quality of areas within the project corridor.
Thank you for your comment and for stating your preference for the Tunnel Alternative. Some impacts to business access and traffic circulation are expected during the construction period, regardless of build alternative and the construction approach taken. Construction staging and phasing plans are continuing to be evaluated and strategies developed to balance the duration of construction with the level of access that can be maintained. Because the project has evolved since the publication of the 2004 Draft EIS, please see the Final EIS for current information.

The public hearings held during the 45-day comment period for the EISs for this project are part of the regulated environmental review process that the lead agencies must comply with per NEPA.
Thank you for sharing your history with the Seattle Waterfront BIA and safety concerns. Safety is a major part of the purpose and need of this project. A surface alternative was considered in the 2004 Draft EIS, but it was dropped because it did not provide sufficient capacity to meet the project's purpose.

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs. However, if the Elevated Structure Alternative is selected, it will be designed to the highest earthquake standards applied in the United States for a highway structure. The pilings supporting the structure will be supported by consolidated glacial till. The till is not only extremely competent but is not subject to liquefaction during an earthquake.
Your objections to the Rebuild and Aerial Alternatives are noted.

Although the Alaskan Way Viaduct Project does not make specific provisions for various transit modes, light rail and commuter rail opportunities are present in Seattle. Sound Transit’s Central Link Light Rail system opened in 2009 and operates between Sea-Tac International Airport and downtown Seattle. Link light rail is scheduled to eventually be expanded to the north and east as funding becomes available. The light rail and some bus routes currently share the Downtown Seattle Transit Tunnel, which was built in the 1980s as a primary transit corridor through downtown. An additional, underground transit corridor in the downtown area is not planned at this time.

Sound Transit also operates Sounder commuter rail service through downtown Seattle on the BNSF tracks. Amtrak uses this same freight corridor to operate regional rail service.

As explained in the 2010 Supplemental Draft EIS and the Final EIS, the Surface Alternative does not meet the project’s purpose and need to provide capacity to and through downtown Seattle; therefore, it was dropped from further consideration. The project has evolved since the publication of the Draft EIS in 2004. Please refer to the Final EIS for current information.
The Bypass Tunnel Alternative has been eliminated. As for the question of structural support for a tunnel, there is a competent soil layer at depths ranging from 50 to 100 feet that geotechnical studies have found sufficient for structural support of a tunnel.

Construction activities would interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. A primary goal of construction planning is to maintain adequate access to all businesses so they can continue to operate. Mitigation measures are described in Chapter 8 of the Final EIS.

Construction phasing is essential for a project of this size and complexity, and construction plans have been proposed for all the alternatives. These construction sequencing and staging plans were developed to a level of detail necessary to support the Final EIS in analyzing the environmental impacts of construction with varying construction durations. The description of these plans can be found in the Final EIS Appendix B, Alternatives Description and Construction Methods Discipline Report.

The project has coordinated closely with the Port of Seattle on various design issues over the last several years. Construction sequencing is being designed to minimize disruption to ferry, cruise ship, and Port of Seattle freight operations.

While SR 99 is a state highway, it is also vital to Seattle and the region, and it is part of the national highway system. The lead agencies are committed to meeting the purpose of the project and fulfilling their responsibilities, including funding the project.
The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
The 2004 Draft EIS and 2006 Supplemental Draft EIS discuss potential impacts during construction for the entire project area, which includes the central waterfront. Additional information has been presented in the 2010 Supplemental Draft EIS and in the Final EIS. Effects on the businesses and activities in this area during construction, such as rerouting pedestrian access and increasing traffic congestion, are described in the main volumes and technical appendices. Mitigation measures will include minimizing obstructions and maintaining access during important business seasons. Pedestrian access will be maintained during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Transportation mitigation measures described in Chapter 8 of the Final EIS will also be important to mitigate effects to businesses.
The description of existing conditions provided in the 2004 Draft EIS and 2006 Supplemental Draft EIS has been updated in the 2010 Supplemental EIS and Final EIS, as well as their appendices. The parks, facilities, and businesses along the central waterfront are acknowledged as an important tourist destination.

Updated pedestrian volumes were collected by video along Alaskan Way in downtown Seattle in August 2006. The purpose of these counts was to quantify pedestrian activity in the summer season along the waterfront for use by the Alaskan Way Viaduct Replacement Project team in assessing transportation conditions, developing mitigation measures, completing a Final EIS and furthering project design. Data collected for this effort confirms that pedestrian activity on the waterfront promenade is substantially higher in the summer, particularly during summer weekends. The updated pedestrian counts have been included in the Final EIS.

We agree that the Central Waterfront is an important recreational destination. Pedestrian access will be maintained during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Any pedestrian facility (e.g., sidewalk, bridge, path, etc.) that may be removed to accommodate construction activities will be replaced to the extent practicable with a temporary facility in a nearby location with equal capacity. Further information on how the project will address pedestrian access and safety during construction activities can be found in the Final EIS. Mitigation measures for the project are described in Chapter 8 of the Final EIS.
April through October, and visitors peaking in the summer. The DSEIS treats the sidewalks of the Central Waterfront as if they are simply a generic transportation corridor. See e.g., DSEIS at 92, where it says that during construction bicycles will be routed to other city streets but pedestrian connections would be provided so that people on foot could still make their way to and from businesses on the waterfront. To the contrary, the sidewalks of the Central Waterfront are themselves the recreational destination. The businesses in and alongside the piers are the “furnishings” of that destination, but people stroll the Central Waterfront as a recreational destination in and of itself, not just as a route from one place to another.

Historic Waterfront did its own pedestrian counts on August 4, 2006, during the peak tourist season for the Central Waterfront. The results are shown below, and contrasted with the pedestrian counts the EIS relied on to characterize the existing environment. The data collected on August 4 is attached as Exhibit A.

### Alaskan Way Traffic Counts

<table>
<thead>
<tr>
<th></th>
<th>Pike Hill</th>
<th>Spring Street</th>
<th>Spring Street</th>
<th>Summer Street</th>
<th>Summer Street</th>
<th>Total Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 4 Peak Hour</td>
<td>2,061</td>
<td>459</td>
<td>613</td>
<td>2,474</td>
<td>1,013</td>
<td>1,988</td>
</tr>
<tr>
<td>August 4 Avg Hour</td>
<td>1,537</td>
<td>301</td>
<td>469</td>
<td>1,864</td>
<td>768</td>
<td>1,401</td>
</tr>
<tr>
<td>WDOT winter pm</td>
<td>Not counted</td>
<td>135</td>
<td>46</td>
<td>309</td>
<td>86</td>
<td>Not counted</td>
</tr>
</tbody>
</table>

In short, pedestrian traffic during a period of peak usage is eight to ten times what the EIS assumed.

By failing to recognize the nature of the existing environment— that the Central Waterfront is a major tourist attraction, currently vibrant and successful, albeit noisy—the EIS ignores the consequences of eliminating the parking, removing the sidewalks, and making it challenging and unpleasant to come to the Central Waterfront. The EIS fails to recognize that the Project will destroy one of the major tourist attractions of Seattle for upwards of a decade, with the same economic impacts as if San Francisco were to shut down Fisherman’s Wharf. Similarly, by failing to recognize the nature of the environment the Project is damaging—a major tourist destination—the DSEIS fails to recognize the nature of the mitigation that would be necessary if the construction were to do anything other than destroy the Central Waterfront and its businesses. In order to begin to mitigate the impacts of construction, it would be necessary to not only replace the parking, replace the sidewalks, and maintain the pedestrian and vehicular connections, but take extraordinary steps to make the Central Waterfront an inviting tourist destination in the midst of the noise, disruption and visual clutter of a major construction site.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. As a result of the comments received on the 2006 Supplemental Draft EIS, additional planning and analysis was conducted and presented in the 2010 Supplemental Draft EIS.

After the 2006 Supplemental Draft EIS was published, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2006, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2006 Supplemental Draft EIS, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies' decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

In the Final EIS, Chapter 6 discusses the construction activities, durations, and detours in detail. Construction for the preferred Bored Tunnel Alternative is expected to begin in August 2011 and last about 5.4 years. A primary detour used during construction of the bored tunnel
would be located on the WOSCA property west of Qwest Field. SR 99 traffic would use the WOSCA detour during the first 4.5 years of construction. Please see the Final EIS for addition roadway restrictions and closures.
One component of the project's purpose is to avoid major disruption of traffic patterns. When selecting the preferred alternative, the lead agencies considered the amount of time SR 99 would be closed during construction. The preferred Bored Tunnel Alternative would close SR 99 for a few weeks to construct the WOSCA detour and connect the existing facility to the new tunnel portals. The Cut-and-Cover Tunnel Alternative would close SR 99 for 39 months in the northbound direction and 42 months in the southbound direction. The Elevated Structure Alternative would close SR 99 to all traffic for 2 to 4 months midway through construction and again for 3 months at the end of the construction period.

Further modeling and analysis of the traffic impacts in the area during construction have been conducted and are described in Chapter 6 of the Final EIS and Appendix C, Transportation Discipline Report. Construction impacts on neighborhoods are described in Appendix H, Social Discipline Report, and construction impacts on businesses are described in Appendix L, Economics Discipline Report. Both appendices describe mitigation measures for these impacts. In addition, mitigation measures associated with construction of the Alaskan Way Viaduct Replacement Project are presented in Chapter 8 of the Final EIS.
Regardless of the alternative chosen, for three and a half to seven years or more Project construction will displace between half and all of the 119,000 vehicles that currently use SR 99. Some of that displaced traffic will disappear. Some will be diverted onto I-5, which because it is currently at or near capacity cannot accept much additional traffic. The largest increases will be on the streets of downtown Seattle and on First Hill. It is essential that the EIS fully describe the impacts of that construction traffic, because beyond the Project's destruction of the existing waterfront, congestion from that traffic may have the largest overall adverse impact on the City and the region.

It is essential that not just the Project proponents' conclusions but also the underlying data and analysis be made available to the public, so that the public and decision makers can fully understand the impacts on the rest of downtown of diverting the traffic from SR 99. Neither the DSEIS, nor its appendices, provides any of the data or analysis to support the EIS's conclusory statements. (See 40 CFR § 1502.18(b), providing that appendices to an EIS "normally consist of material which substantiates any analysis fundamental to the impact statement;" here by contrast, the Transportation appendix simply repeats the same conclusions found in the text without any of the supporting data or analysis.) The DSEIS lists “Traffic Modeling and Transit” as an issue that remains to be resolved, raising questions about whether the rather sparse conclusions in the EIS should be treated as reliable at this juncture. DSEIS at 39. The estimated daily traffic volumes shown on pp. 93-95 of the DSEIS cannot be reconciled with the data on pp. A-9 to A-20 of “Assessment of AWV Construction Approaches: Closed Viaduct or Partially Open Viaduct,” Parsons Brinkerhoff (2005) (“Closed Or Partially Open Assessment”), which is the only analysis of the impacts of construction that has been previously made available. It is unclear whether the DSEIS is based on new data, different analysis, an updated model, or some variation on all of the above.

It is also critical that the EIS disclose the impacts on the specific neighborhoods within downtown Seattle, rather than addressing only the number of north-south trips at three crosslines – Mercer Street, Madison Street and Spokane Street. DSEIS at 94. Although there is no way to reconcile the vehicle trip counts between the totals shown on pp. 86 and 93-95 of the DSEIS and those shown in the Closed Or Partially Open Assessment, the trip distribution diagrams in the Closed Or Partially Open Assessment drive home a critical point: the "average" increase in traffic in downtown Seattle is misleading because while some streets are barely affected or will have less traffic as a result of the increase in general congestion, some streets

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2 The DSEIS states that the Project will increase peak congestion on I-5 from its current 5 to 8 hours per day to 8 to 12 hours per day when SR 99 is partially closed and 9 to 14 hours per day when SR 99 is closed. DSEIS at 94. It says that peak congestion on downtown streets would go from its current 5 to 8 hours per day to 5 to 10 hours per day when SR 99 is partially closed and 10 to 12 hours per day when SR 99 is closed. Id at 93-94.
will experience dramatically more than the “average” increase in traffic. Attached as Exhibit B are the trip distribution sheets from the Closed Or Partially Open Assessment showing the change in daily traffic volume under “Scenario 1” (SR 99 open but limited to one or two lanes) and “Scenario 3” (SR 99 closed). The traffic increases for selected locations are shown below.

### Increases in Daily Traffic

<table>
<thead>
<tr>
<th>Location</th>
<th>Scenario 1</th>
<th>Scenario 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercer north of Seattle Center</td>
<td>+34%</td>
<td>+45%</td>
</tr>
<tr>
<td>Mercer between 5th and Aurora</td>
<td>+231%</td>
<td>+236%</td>
</tr>
<tr>
<td>Westlake at Valley</td>
<td>+427%</td>
<td>+437%</td>
</tr>
<tr>
<td>Broad at Seattle Center</td>
<td>+134%</td>
<td>Traffic decreased because the Broad Street counter is not included</td>
</tr>
<tr>
<td>First Ave. between Pike and Pine</td>
<td>+27%</td>
<td>+60%</td>
</tr>
<tr>
<td>Second Ave. between Pike and Pine</td>
<td>+68%</td>
<td>+75%</td>
</tr>
<tr>
<td>Third Ave. between Pike and Pine</td>
<td>+25%</td>
<td>+45%</td>
</tr>
<tr>
<td>Fourth Ave. between Pike and Pine</td>
<td>+4%</td>
<td>+23%</td>
</tr>
<tr>
<td>Fifth Ave. between Pike and Pine</td>
<td>+11%</td>
<td>+18%</td>
</tr>
<tr>
<td>First Ave. north of Yesler</td>
<td>+81%</td>
<td>+279%</td>
</tr>
<tr>
<td>First Ave. south of Yesler</td>
<td>+119%</td>
<td>+366%</td>
</tr>
<tr>
<td>Second Ave. between Yesler and Fourth</td>
<td>+6%</td>
<td>+28%</td>
</tr>
</tbody>
</table>

If these increases are in fact what will be experienced, they will result in very significant adverse impacts to three areas that are particularly sensitive to increased congestion: Seattle Center, the retail core and Pioneer Square. A strategy which focuses on improved transit and getting more trips through Seattle will do nothing to mitigate the impacts of increased congestion on these areas, because they are not now transit dependent and they rely for their success on the ability of people to drive to them and park at them.

- Seattle Center is home to some of the cultural treasures of the region – Pacific Northwest Ballet, Seattle Opera, Seattle Repertory Theater, Intiman, Book-It Repertory Theater, and Seattle Science Center. Each of these non-profits depends upon maintaining ticket sales, and their stability would be threatened if increased congestion leading to Seattle Center...
dissuaded patrons from renewing subscriptions or buying single tickets. Mercer Street in particular is key to access to Seattle Center, and the increases shown for Mercer Street suggest very severe impacts on Seattle Center.

- The retail core is a second Seattle treasure – one of the few urban retail cores that has thrived while most retail has abandoned city cores. But Seattle’s retail core is in constant competition for regional shoppers. Increasing traffic from 11% to 75% in the retail core would have very severe impacts on the retail core’s ability to be competitive.

- Pioneer Square is a key neighborhood for Seattle, having been resurrected in the 1970s from decades of decay, but facing current challenges to its stability. Increasing traffic through its main street by 81% to 366% would significantly hinder efforts to preserve its viability.

Because we cannot reconcile the data in the Closed Or Partially Open Assessment with the data in the DSEIS, we do not know if the projections in the Closed Or Partially Open Assessment are likely to be correct. It is simply the only detailed data so far produced to the public by the Project proponents. The EIS must present an assessment, supported by verifiable data and analysis, of the probable traffic impact on the specific areas within downtown Seattle that will be most affected. Before there is any irreversible commitment of resources, the public and decision-makers need to understand the impacts of congestion the Project will cause on Seattle Center, the retail core and Pioneer Square for three and a half to seven years or more.

It is also essential before there is any irreversible commitment of resources to have an analysis of the expected impact of the various mitigation measures that the DSEIS suggests may be included in a construction traffic mitigation plan. The mitigation plan must recognize and address the unique needs of the neighborhoods that are being affected. The DSEIS proposes mitigation such as removing on-street parking to allow more vehicle trips to pass on the streets of the area. While that may mitigate the impact on users of SR 99, it may increase the adverse impacts on areas such as Pioneer Square. The DSEIS proposes improving transit as a primary mitigation method. That may have little or no benefit for areas such as Seattle Center and the retail core, which depend upon patrons and customers being able to drive to and park at their destinations. The EIS cannot simply treat the area where traffic will be diverted as homogenous and able to rely on transit instead of automobiles, because critical parts of the affected environment will suffer unique impacts from the increased congestion caused by the Project and have unique needs that must be addressed.
A mobile source analysis has been conducted to estimate the potential air quality effects from the traffic conditions anticipated during construction and operation of the project. These analyses are described in the Final EIS and Appendix M, Air Discipline Report. Mitigation measures for traffic during construction are also described in the Final EIS and Appendix C, Transportation Discipline Report.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide
frequent parking updates

- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.
The DSEIS proposes to “increase the use of other parking facilities in the area.” DSEIS at 106. The Transportation Discipline Report, DSEIS App. C at 99, bases the ability to mitigate parking loss through increased utilization of existing facilities on a 2004 PSRC parking inventory, which purported to show only 66.4 percent utilization of central waterfront parking, and 500 unutilized spaces. We have reviewed that study. Although it may suggest that modern technology and signage could help mitigate removal of on-street parking in the downtown office core, it provides no basis for mitigation along the Central Waterfront. The study does not disclose where the vacant parking spaces were found, but it does disclose that each parking facility was surveyed twice—one between 9:30 and 11:30 a.m. and a second time between 1:30 and 3:30 the same afternoon on a Monday through Thursday between March and June of 2004. There is plenty of extra parking on the Central Waterfront during the midst of the business week in March or April, or even perhaps May or June. Parking demand on the Central Waterfront is highly seasonal. None of the businesses could survive, however, if lack of parking capped their businesses at their off-season level. Like retailers, who depend on sales between Thanksgiving and Christmas, Central Waterfront businesses must have parking to accommodate peak season demand. During the peak season, there is currently a shortage of parking, which restricts the growth of Central Waterfront businesses. Any loss of existing parking will exacerbate that problem and must be mitigated.

Construction workers must be prohibited from parking downtown. The DSEIS states that construction workers could require up to 2000 parking spaces. DSEIS at 100. At a time when the Project is placing maximum stress on all parking-dependent businesses Downtown, the least the Project can do is provide construction parking well outside of Downtown and bus workers to the site.

The discussion of construction noise impacts is too vague to provide a meaningful assessment of the magnitude of the noise impact.

The DSEIS says that "typical noise levels from construction equipment range from 69 to 106 dBA at 50 feet from the source." DSEIS at 97. On the other hand, it says that "the majority of construction activities would fall within the range of 75 to 85 dBA at 50 feet..." with some activities reaching 100 dBA. It further states that current noise levels range from 57 to 81 dBA, DSEIS at 104. Id. In short, the area is currently noisy; some noise during construction will be similar to what currently exists; other noise will be much louder. There is no way to tell from that description whether construction noise will be an annoyance or so severe as to make it painful to be at the Central Waterfront. A construction noise mitigation plan will be developed later—so there is no way to assess what effect it may have on the magnitude of the noise impact. This is simply inadequate to fulfill the purposes of NBPA and SEPA.

B-019-007
Removing the viaduct would be the loudest construction activity for businesses and residents near the viaduct. Although viaduct demolition would take approximately 9 months, demolition of individual two-block segments is expected to last no more than 4 weeks. Extremely loud activities, such as pile driving, are no longer anticipated in the Central Waterfront area. Current analysis and discussion of construction noise is provided in the Final EIS and Appendix F, Noise Discipline Report.
Because the project has evolved, please see the Final EIS for current project information. The economic analysis presented in the Final EIS has been supplemented with a discussion of the cost of increased congestion during construction. The level of specificity of the cost of congestion analysis was wholly dependent upon the detail generated from the traffic modeling.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The project team acknowledges that there will be difficult economic times for businesses within the immediate impact area and that the City of Seattle will absorb a certain loss in productivity due to increases in congestion. The project does not intend for businesses along the waterfront to close. The indirect economic effects (such as the diversion of tourists to other destinations within the Puget Sound Region and the relocation of businesses) are subject to many variables that cannot be quantified as a result of the direct impacts due to construction. These indirect effects are expected to be balanced by the influx of construction dollars into the regional economy.

The losses that may or may not materialize for businesses outside of the area of immediate impact would be subject to economic forces beyond the control of this project and cannot be calculated without speculation.
The seawall is part of the Cut-and-Cover Tunnel and Elevated Structure Alternatives, but is a separate project under the Bored Tunnel Alternative. Because the seawall is not integral to the bored tunnel, this allows for less construction disruption along the central waterfront.

The decision to replace the seawall is not based on the desire to avoid regular maintenance costs and periodic capital repairs. The maintenance and repairs are the minimum needed to keep the seawall functioning, though the seawall is already past its design life. Test probing indicated 37 percent of the seawall had timber relieving platform damage. This maintenance work will increase in frequency and expense as the seawall continues to age. Typical marine structures built in the 1930s were designed to last up to 50 years. The seawall is over 70 years old. An expanded monitoring program is essential to better predict seawall movement increases, which are our best means of advance warning of a failure.

The new seawall design will meet current seismic design criteria that the existing seawall does not meet. Analysis of the existing seawall indicates it will not withstand a large earthquake, even if it were in like-new condition. Planning for the needed replacement is the prudent and fiscally responsible approach.
We believe potential mitigation discussed in both the 2004 Draft EIS and 2006 Supplemental Draft EIS was appropriate for those documents. Mitigation, like project plans, evolve and are refined through the development process. Continuing analysis and work with affected parties, like the waterfront businesses, helps to further develop mitigation measures. Chapter 8 of the Final EIS discusses the current mitigation measures for the project. The lead agencies will continue to refine mitigation measures and work with affected businesses and residents throughout the project's design and construction process.
The alternatives presented in the 2004 Draft EIS and the 2006 and 2010 Supplemental Draft EISs represent a reasonable range of approaches that can meet the purpose and need for the project. Many options were looked at during the initial phases of the project's screening process. The screening process involved early analysis by the project team and discussions with community groups at more than 140 community meetings and community interviews, including businesses along the corridor. A total of 76 initial viaduct replacement concepts and seven seawall concepts were considered, and concepts that were not feasible, or were outside the purpose of the project were dropped from further consideration. The most workable ideas were shaped into the alternatives analyzed in the 2004 Draft EIS. Further screening and analyses were conducted for the 2006 Supplemental Draft EIS. In 2010, a second Supplemental Draft EIS was prepared to analyze the Bored Tunnel Alternative. The Final EIS contains descriptions and analysis of the current project alternatives.

As you state in your letter, NEPA and SEPA require agencies to evaluate reasonable alternatives; however, these same regulations allow agencies to eliminate alternatives. If agencies drop concepts or alternatives from further evaluation, they are required to briefly discuss the reasons why they were dropped. Some of the concepts/alternatives you have listed have been considered and the reasons why they have been dropped were stated in the 2006 Supplemental Draft EIS, as well as project screening documents included as references to the 2004 Draft EIS and 2006 Supplemental Draft EIS documents.

The lead agencies have evaluated several possible retrofit concepts over the years and have also submitted some of these proposals to other engineers for independent review. In all these cases, the conclusion has been the same--feasible retrofitting options cost almost as much as
the other hand the Project team admitted the Western Alternative could keep the waterfront open during construction if the seawall were not included, that the impact of construction on any particular property owner on the Western route could be a matter of months, not years, and that closure of SR 99 could be limited to two to six months, not three and a half to seven years. If given a choice, the public and elected officials might choose destruction of the waterfront and years of traffic congestion as the price to pay for getting the seawall fixed now and being able to drive 50 mph—before slowing down to 35 at the Battery Street Tunnel, which is already signed for lower speeds. Or they might not. NEPA and SEPA require that the choices be presented for the public and decision-makers to consider, and not unilaterally made by the project proponents.

- Project staff rejected a deep bore tunnel because it might cause building settlement of as much as 1 ½ inches, without any discussion with structural engineers who are familiar with the affected buildings. Current borer tunnel technology is being used in California at costs far below the projected cost of any alternative considered in the EIS. A deep bore tunnel could have minimal construction impacts. Nonetheless, Project staff has stood by a decision made years ago, before current technology existed, that a deep bore tunnel would be too expensive and too risky.

- Project staff has recently given more consideration to a retrofit proposal, but also dismisses it as not meeting the project’s seismic standards. The staff’s analysis of the retrofit shows that the retrofit would survive but be damaged by the 500-year earthquake, and the columns could potentially fall in a 2500-year earthquake. See Evaluation of Gray’s Retrofit Proposal, TY Lin (2005), at 21-23. Again, the public and elected officials might choose destruction of the Central Waterfront and years of congestion in order to have a finished viaduct that meets the 2500-year earthquake standard. Or they might not. NEPA and SEPA require that those choices be presented for them to consider, not decided by staff without a public vetting of the choices.

These are reasonable alternatives under NEPA and SEPA that must receive objective analysis and a fair comparison to the alternatives being offered by the project proponents. “Objective” analysis is key. It is clear that Project proponents have focused on finding potential flaws in any other alternative, at the same time that they minimize the potential risks and flaws of their own
The environmental documents for this project meet the NEPA regulations set forth in the Code of Federal Regulations (40 CFR 1502) and the SEPA regulations in the Washington Administrative Code (WAC 197-11). The 2004 Draft EIS and 2006 Supplemental Draft EIS provided an appropriate evaluation of the proposed project at that time. In 2010, the project prepared a second Supplemental Draft EIS to analyze the Bored Tunnel Alternative. Please see the Final EIS for updated project information.

In their comments on the 2004 DEIS a number of members of Historic Waterfront said that the DEIS was inadequate and required supplementation because:

The DEIS does not disclose the impacts of construction on the people who must live and work in its midst; the DEIS does a disservice to thousands of people who must live through years of disruptions by saying nothing more than this "could" drive customers away.

The DEIS fails in its obligation to disclose mitigation that may reduce the primary adverse impacts of the project; it is simply not good enough to disclose potential mitigation later.

That remains true. The EIS must contain all the elements required by NEPA and SEPA. On its face it does not. A new draft EIS is required. 40 CFR § 1502.9(a). The alternatives that are now being considered to shorten construction will themselves visit such extraordinary adverse impacts on the City that alternatives other than simply shortening construction must be considered.

The DEIS appears to falsely assume that because the scope of the construction and its adverse impacts are so extraordinary, the normal requirements of NEPA and SEPA can’t be expected to apply to the Project. It assumes that the EIS should not be expected to identify environmental

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In addition to the EIS’s failure to adequately describe the impacts discussed earlier in this letter, the EIS does not state that Project staff has identified as risks of their proposal that construction may conflict with BNSF’s ability to operate the railroad, that there may be excessive water inflow through wall joints, that their proposed soil improvement may not result in adequate shear strength, and that there is a risk of good getting into Puget Sound. See, work papers for 2009 CVP cost estimates. We cannot assess how great any of these risks may be – they are simply risks the Project staff has identified for their alternatives and built into their cost estimates, but not told the public about in the EIS.
WSDOT
September 22, 2006
Page 19

8-019-012

Effects and values in adequate detail so they can be compared to economic and technical analyses. It assumes the EIS need not include appropriate mitigation measures that are part of the proposal. It assumes the description of the affected environment can be general and need not allow the reader to understand the Project's impacts. It assumes the EIS need only analyze those alternatives that the Project proponent has previously determined will be considered, and need not analyze other alternatives that might feasilibly attain or approximate the goals of the project but at lower environmental cost. None of those assumptions is supportable.

Only when an adequate EIS is issued can the Project move forward. If the Project is difficult and complex, with multiple adverse impacts, as it is, that is a reason why thorough environmental analysis is required early, not an excuse to put off environmental analysis until later. The EIS must include the actual mitigation to be provided, and where the impacts that cannot be mitigated are as serious as are likely to be the case here, all reasonable alternatives must be fully considered.

Sincerely,

GRAHAM & DUNN PC

Elaine L. Spencer

cc: Ivar's
Argosy, L.P.
Pier 57, Inc.
Martin Smith Inc.
Ye Olde Curiosity Shop
Elliott's Oyster House

ELS/Att
m3171796163.doc
The project team has undertaken a coordinated permitting effort to ensure project permits and approvals are obtained in a timely manner. This includes:

- Working closely with the utility and design groups to ensure that appropriate permits are received during the life of the project.
- Incorporating permitting in the project base schedule.
- Working closely with the project schedulers to ensure permits are obtained in advance of all utility and construction work.
- Holding early pre-application meetings with permitting agencies allowing early review of design plans and environmental documents.
- Tracking permit requirements, permits and permit commitments in a project-wide database.

Potential utility relocations are discussed in Chapter 6 of the Final EIS Appendix K, Public Services and Utilities Discipline Report.

Although costs are an important part of project planning and decision-making, they are not part of the NEPA environmental review process. However, overall project costs, which includes costs associated with utility relocation, are discussed in the overall project description and are certainly part of the lead agency decision making considerations. Costs of relocating private utilities located in public rights-of-way are generally borne by the utility and are not included in the project costs paid for with public monies.

The project's proposed construction sequencing, schedule, and construction methods for the alternatives are discussed in the Final EIS Appendix B, Alternatives Description and Construction Methods.
5. PSE will need to perform normal utility maintenance activities on its facilities before, during and after any required pipeline relocations that should be considered when determining final location of facilities.

6. As a result of this project, PSE may need to relocate and restore services on private property associated with this work. Any final utility plan should reflect this issue.

7. PSE plans to install a 10" diameter high-pressure (HP) gas main during the utility relocation. PSE would prefer that all of the 10" HP gas main be installed before transferring service from and deactivating the existing 12" HP gas main. PSE would prefer to be able to mobilize and demobilize only one time during the placement of the relocated HP main.

8. PSE would like to address plans for connecting customers on the east and west side of the tunnel alignment. PSE would request that before the roadway is in its permanent state, PSE will be able to install customer connections.

9. PSE gas piping would need to be supported and protected in place across excavation areas. PSE concerns for the crossings include duration of pipe exposure, length of crossings, potential degradation of pipe coatings, design of crossings, differential settlement and PSE monitoring requirements.

10. Impressed current corrosion protection of the seawall could require significant power. PSE prefers not to work in joint trenches because of the different production rates of steel and plastic pipe due to the different welding/piping fusion disciplines. PSE considers pipeline bedding, backfill and compaction important and will want to be involved in the inspection of this work for their facilities.

11. PSE prefers to continue to be part of a coordinated corrosion protection plan for the project. Coordination among all parties will be necessary to design and build efficient corrosion protection systems. At utility crossings, PSE recommends including a common cathodic protection test station with leads to both utilities.

12. PSE requests that the Intermediate Pressure (IP) gas main be located with consideration of best serving PSE customers.

13. PSE continues to remain concerned about trenching methods. PSE does not favor the use of trenchless methods in this corridor because of concerns surrounding the guidance system interference caused by other utilities and buried obstructions.

14. It is critical that representatives of Puget Sound Energy be included in the development and execution of any coordinated communication plan with the community, our customers and other stakeholders. This includes review of media releases that reference Puget Sound Energy work and meetings, and other interactions, with impacted businesses, residents, government agencies and the public.

Thank you for the opportunity to comment on the proposed Alaskan Way Viaduct and Seawall Replacement Project Supplemental DEIS. If you have any questions concerning these comments, please contact me at 425-456-2836 or susan.hempstead@pse.com.

Sincerely,

Susan Hempstead
Local Government & Community Relations Manager
Puget Sound Energy
There are utilities in addition to PSE that will need to be connected to customers before the roadway corridor is in its final state. The project will develop preliminary design plans to approximately the 30 percent level. The final design, including the sequencing of customer connections, is to be addressed by the private utilities.

The details for the support and protection of utilities that are temporarily exposed during roadway excavation can be addressed by PSE and other private utilities as they develop their own final design, following the project's completion of the 30 percent design phase. The lead agencies will continue to coordinate with PSE and other utility providers on issues such as this one.

Your concern is noted. Details for cathodic protection of utilities will continue to be developed in coordination with PSE and other utilities as design proceeds. Please note that the preferred Bored Tunnel Alternative does not include replacement of the seawall. However, the Cut-and-Cover Tunnel and Elevated Structure Alternatives do include replacement of the seawall.

PSE's concerns and preferences are noted. Coordination on design and contracting between PSE and the project will continue as the utility design proceeds.

The location of the Intermediate Pressure (IP) gas main will be determined as the design progresses, and will be coordinated with PSE.
B-020-013
PSE's concern is noted. Based on coordination between PSE and the project team, it is the project's understanding that horizontal directional drilling for other utilities under PSE gas mains can be addressed by having a well-defined entry point for the drill and that the entry point is a few feet back from PSE gas mains.

B-020-014
The project's communications team will ensure that PSE will have the opportunity to review any media releases or public notifications related to PSE work prior to public release.
The Final EIS addresses the economic cost of congestion for the construction phase of the project within the limits of the data provided by transportation modeling. The updated discussion of economic impacts associated with freight mobility were described in the Appendix L, Economics Discipline Report, of the Final EIS. The Final EIS also includes an evaluation of impacts to freight mobility. Mitigation measures, which include a traffic management plan, are presented in Chapter 8 of the Final EIS and in Appendix C, Transportation Discipline Report. These measures cannot alleviate all of the construction impacts, but will provide some relief. The importance of the corridor for freight, and for the local and regional economy, is understood and efforts to minimize the impacts during construction will continue.

A dedicated truck corridor is not proposed on SR 99 due to limitations on the total number of lanes that can be provided on the corridor, the relatively small share of truck traffic compared to total users, and general-purpose capacity requirement associated with peak period auto demand. Off-peak traffic conditions are generally not congested on SR 99. The issue of overall freight mobility is an important one; please see the Final EIS for proposed mitigation measures to reduce effects to freight mobility.

This project is not considering changes to the West Seattle Bridge. Use of the dedicated bus lanes for moving freight is not recommended due to the potential merging impacts that could be experienced at the end of the lane under higher vehicle loads. Additionally, allowing trucks in transit lane would likely impede operations for transit vehicles as grades on the West Seattle Bridge would induce slower climbing speeds for trucks, thereby backing up transit buses and causing further delay.
The City of Seattle designates all principal arterials as truck streets and has also classified certain streets as Major Truck Streets. By policy, the City will “monitor these streets and make operating, design, access and/or service changes, as well as capital investments, to accommodate trucks and to preserve and improve commercial transportation mobility and access on these major truck streets.” First Avenue S. is currently designated as a Major Truck Street by the City of Seattle.

While First Avenue S. is a Major Truck Street, it is also an important transit corridor serving West Seattle and communities to the south. Adding exclusive use lanes on First Avenue S. for buses and freight would reduce vehicle carrying capacity in the corridor and likely cause more congestion, particularly during peak travel periods. The City will likely continue to monitor this facility and work with Metro and the freight community to determine if joint use by transit and freight is feasible.

The Southwest Spokane Street Swing Bridge opens on demand, even during rush hour traffic, due in part to tidal fluctuations and the resulting limited window for allowing certain types of marine vehicles to pass under the bridge. While the lower bridge could be prioritized for use by freight, restriction of use is not proposed since the route does serve some general-purpose users as well. Restricting buses and freight traffic to the Spokane Street Bridge would likely divert more traffic to the already congested upper West Seattle Bridge, further impeding general purpose, freight, and transit operations on that bridge. Of particular concern are those West Seattle express buses that access downtown via SR 99, which would likely encounter longer travel times during the peak commute hours if traffic was diverted from the lower bridge.
B-021-006
This proposal is beyond the project area, though such a change could be considered for implementation during the construction period.

B-021-007
For more information on the proposed mitigation measures, please refer to the Chapter 8 of this Final EIS.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.
WSDOT, City Council, Governor, and Legislature to find a way to make the tunnel
option a reality, or if economics don’t work, tear it down and leave it down!

Sincerely,

[Signature]

Joe W. Jacobs

P.S. Please find an article by William Weis, which represents my sentiments, enclosed.

Enclosure

Cc: Governor Gregoire, Representative Frank Chopp, Seattle City Council
Tear down viaduct for a great city

GUEST COLUMNIST
WILLIAM WEIS

One distinctive feature of every great city is its ability to move people into and out of its center—and its resolve to keep through traffic far away from its heart and core. Consider this before dismissing the call to permanently remove the Alaskan Way Viaduct.

To argue for a highway going through the center of Seattle is to argue that Seattle should forsake its urban center to provide a freeway link between Renton and Tacoma or between Shoreline and Olympia. That is precisely the kind of selfish thinking that has destroyed most of the United States' once promising cities: Detroit, Atlanta, Miami, Toledo, Phoenix, Houston, Dallas, Los Angeles (yes, even Los Angeles was once a city, not so very long ago), and on and on. Not one of those examples survived the decision that somehow building highways through their urban cores would save them—and not one will ever be a city again.

We've been lucky in Seattle. Something is still left of an urban center—but what is left is precarious and can survive only so many ill-considered studies, last-minute transit opportunities, faddish urban plan- kesaducts and highways—inated Interstate 5—through its urban center. Great cities are not built to such scars as the Alaskan Way Viaduct. Would you expect to see a freeway dissecting the center of Paris? London? New York? Vienna? Rome? Vancouver?

Villagers used to worry about how to get people into their centers and out of their centers—but never through their centers. In our case, the state Department of Transportation would like Seattle to sacrifice its soul to move cars and trucks up and down the I-5 corridor—to move people from one side of Seattle to the other. The Seattle City Council and the mayor's office should give notice to DOT, ayes, that downtown Seattle will no longer be an available alternative for moving cars and trucks from the north to the south of the state. Nothing—not much urban essence will be lost by adding a few more downtown lanes to highways passing through Seattle, which has no aspirations of ever becoming a city.

The existing infrastructure of state Route 99 can be fully used in a system of access and exit points to serve the needs of the region, in fact, throughout the downtown Seattle grid. And that can be accomplished much more efficiently than is done by the current viaduct, which is clogged by vehicles passing through (more than 70 percent, even during rush hour) rather than going to and from Seattle. That will free up the north and south directions on SR 99 for people coming to and from Seattle, which is all that our city planners should be concerned about.

Thanks to earthquake vulnerability, we face an unexpected opportunity to begin turning back the movement to destroy what's left of Seattle as a city. Focus on how to retain the waterfront and its adjacent spaces—the commercial and residential centers of Seattle, as are not all waterfronts in great cities with such fortunate geography. Mayor Nickels, tear down this Viaduct!
The lead agencies have continued to consider a multitude of options and the trade-offs involved in shortening the construction duration for the project. The 2006 Supplemental Draft EIS included analysis for a shorter construction plan (closed corridor), intermediate construction plan (partially closed corridor), and longer construction plan (partially open corridor). The 2010 Supplemental Draft EIS also analyzed a construction plan for the Bored Tunnel Alternative. Since the 2006 and 2010 Supplemental Draft EISs, the construction plan for each alternative continued to develop and is presented in the Final EIS. Appendix B, Alternatives Description and Construction Methods Discipline Report, also contains a detailed description of the length of construction and how the preferred alternative would be built.

The Battery Street Flyover Detour is no longer being considered. Please see the Final EIS for current information about detour routes needed for each alternative.
After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project.

To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
studied alternative ways of keeping the traffic flowing. And so, it seems to me it's almost like a given, and a prerequisite, and I don't accept that given, and I don't accept that prerequisite. There are other alternatives that ought to be evaluated.

People in West Seattle are going to have a problem when the viaduct is under construction. Ferry service to West Seattle is an alternative. There are things that can be done to significantly improve traffic flow during all of this, and I don't think that has been studied.

The way this project is going it looks like the waterfront is going to take the entire hit. And while we're willing to take a hit, we think that it needs to be shared, and that there are ways to get traffic flowing for the City, and spending hundreds of millions of dollars adding years to the project is just going to increase the pain, and it hasn't been justified.

And the major comment here is that the Draft E.I.S. does not adequately cover this subject. It's almost as if it was a prerequisite that they have to keep this traffic flowing, and they haven't looked at alternatives to keep it flowing. All they've looked at is an alternative that adds years and lots of money to the project. Adding those years, spending that money, I don't see in the Draft E.I.S. the justification for doing that, and I think that's a big
whole in the Draft E.I.S.

PENNY SWENBERG: My name is Penny Swanberg and my
time is on Alaskan Way. I'm just concerned that no
alternative regarding traffic control or stopping of
traffic has been mentioned, which would save the time of
construction, maybe two years, and also maybe a half a
billion dollars or more. And I'm talking with regard to
The Old Pass down Alaskan Way.

And that's basically my concern, besides all the
dust and the noise, and the disfigurement of Alaskan Way,
which they've been trying to build, make attractive to
tourists, since the '70's, when it was not very
attractive. And I hate to go back to that disruption, to a
disruption of that kind.

JANICE BLAIR: My name is Janice Blair, and I live on
the waterfront on Alaskan Way. And I'm concerned that the
E.I.S. didn't address the traffic during the interim,
especially during cruise season. Right now, during cruise
season, the streets are clogged already, and I don't think
that they have figured out or have thought about how
they're going to keep those truck moving as they come to
supply the cruise ships.

Also, I didn't see how they're going to work with
the noise and the dust. I'm thinking about not only the
residents on the waterfront, but tourists and other people
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project.

To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
Since the 2004 Draft EIS was published, additional traffic analysis has been conducted as presented in the 2006 and 2010 Supplemental Draft EISs, and the Final EIS. Please see the Final EIS for current information regarding traffic impacts during construction.

Mitigation measures for traffic, noise, and dust are presented in Appendix C, Transportation Discipline Report; Appendix F, Noise Discipline Report; and Appendix M, Air Discipline Report, of the Final EIS.
As part of the ongoing public involvement process, the project will continue to coordinate with the residents, businesses, and property owners along Alaskan Way through meetings, open houses, newsletter updates, and e-mail. Mitigation measures addressing noise, parking, traffic, dust, and other factors are included in the Final EIS and appendices. The lead agencies will continue to refine construction mitigation for the preferred alternative’s construction sequencing and methods. The mitigation measures may also become part of the permit conditions required for the project.

H-004-003

Bonnie Collett: I am Bonnie Collett, and I reside at 1425 Western Avenue, in Seattle. Our collective concerns in our condo unit, or our condo group, is that the E.I.S. needs to establish a forum for residences and businesses adjacent to the project site who work with the design team to assure that concerns about construction impacts are met, develop a clear process by which claims for any damage to adjacent properties can be met and fully compensated. The full disclosure of project insurance levels or self-insurance of W.S.D.O.T. should be made.

Locate the Pike Street ventilation buildings and its stacks some place other than Pike Place Market hill climb. There’s a lot of children who play in the daycare there, there’s tons of tourists that come by, and it’s not a good idea.

The E.I.S. needs to address the release of concentrated pollutants and their affect on residential property directly adjacent to proposed ventilation stacks.
WSDOT is currently preparing a claims process that would address any damage to property directly related to the Bored Tunnel Alternative. This information will be given to individual property owners that may be affected by the project. WSDOT plans to install an array of monitoring equipment to alert the construction team of any settlement which would be used in the claims process. There are specific impacts that WSDOT can compensate for such as excessive noise and vibration levels or damage to property. However, impacts that are not quantifiable are generally not compensable. If you experience impacts during construction, please call our 24-hour hotline, 1-800-AWV-LINE.

An exhaust stack near Pike Place Market is no longer included in any of the alternatives. The preferred Bored Tunnel Alternative would have two tunnel operations buildings that include exhaust stacks. One building would be located in the south portal area near Alaskan Way S. and Railroad Way S., and a second building would be located in the north portal area near Sixth Avenue and Harrison Street.
An exhaust stack near Pike Place Market is no longer included in any of the alternatives. The preferred Bored Tunnel Alternative would have two tunnel operations buildings that include exhaust stacks. One building would be located in the south portal area near Alaskan Way S. and Railroad Way S., and a second building would be located in the north portal area near Sixth Avenue and Harrison Street.

Under normal daily operations, tunnel ventilation fans are subject to the noise level limits of the Seattle Noise Ordinance and must meet Seattle property line noise limits. Ventilation fans would be designed not to exceed 57 dBA at the property line of the nearest residential use during normal operation hours. If the fans would normally be operated during nighttime hours (10 p.m. to 7 a.m. on weekdays and 10 p.m. to 9 a.m. on weekends) they would be designed not to exceed 47 dBA at the property line of the nearest residential use during nighttime hours.

Construction of the project will require nighttime construction activities, and the City will require a Major Public Project Construction Noise Variance. Construction noise mitigation requirements would be developed and specified in the noise variance.

We acknowledged your concerns as a neighbor adjacent to the existing viaduct and project construction area. The project will continue to coordinate with the residents and businesses along Alaskan Way through meetings, open houses, newsletter updates, and e-mail. Mitigation measures addressing noise, parking, traffic, dust, and other factors of specific interest to residences and businesses are included in Chapter 8 of the Final EIS.
What are the affects of the constant exposure to the fumes from the ventilation building? What type of particulate matter will be released, and what are the health risks?

The E.I.S. should also address the change in character of the ambient noise resulting from the frequency and steady sound of the fans. Those concerns should affect a location for the building to a non-residential area. We ask that you limit construction noise that exceeds the City of Seattle Residential Nighttime Noise Regulation to nonresidential areas of the project site. Appendix F states that City noise levels are expected to be exceeded in the nighttime, and this is not acceptable in a residential area.

Phase the construction adjacent to Hill Time Court to maintain parking garage access onto Alaskan Way, integrate safe access into the final design, provide adequate dust control during demolition, and develop progress to keep the area businesses alive during the project period. Having people continue to access the area shops and restaurant will enhance the safety of the adjacent neighborhoods. Thank you.

ARTHUR M. SKOLNIK: My name is Arthur M. Skolnik. I'm a fellow of the American Institute of Action. I'm a land use consultant. I live at 2515 Fourth Avenue, Apartment 2702, Seattle, Washington 98121.
We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
Economic impacts are discussed in the Final EIS and Appendix L, Economics Discipline Report, of the Final EIS.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information regarding permanent project effects and temporary construction effects. The content and level of analysis conducted for this document is consistent with the level of design and more than adequate to inform the public and decision-makers of the probable consequences resulting from the project or from inaction.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to
identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.
We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.
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To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects (including the cost) of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated primarily due to these impacts.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS,
many people asked the lead agencies to consider more than one construction plan. To respond to this question, three different construction plans were developed and evaluated in the 2006 Supplemental Draft EIS.

FHWA, WSDOT, and the City of Seattle are committed to communicating and coordinating with the downtown and waterfront neighborhoods and businesses through open houses, community briefings, newsletter updates, and e-mail. The lead agencies are also committed to implementing construction mitigation measures to offset the impacts of construction on the downtown area as much as possible. Proposed construction mitigation measures are discussed in the Final EIS.

H-007-005
There will be a slight decrease in the number of properties paying property taxes as some properties are converted from private use into public right-of-way at the beginning of construction. The effect of this is that the tax burden is redistributed to the remaining parcels in King County that do pay property taxes.

At the end of construction, and depending on the final design, there may be some parcels that previously were right-of-way that are no longer needed and can be sold and returned to the inventory of property tax-paying parcels. This would offset the effect on property taxes that will occur at the beginning of construction.

During construction, the effect on the value of an individual parcel as measured by its sale price, and the resultant effect on the assessed value for tax collecting purposes, is dependent on a great many factors and cannot be calculated without speculation. It should be noted that during the Central Artery Project in Boston, the rate of redevelopment of abutting parcels actually increased dramatically during the project's
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent, though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

An EIS intentionally does not evaluate funding or financial issues. This allows the documents to discuss and compare a broad range of environmental issues that are not easily quantified in terms of cost. The lead agencies are very concerned about project costs and have invested substantial effort into accurately evaluating the cost of each alternative.
A variety of financing mechanisms are under consideration and overall costs will continue to be an important part of the decision process.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments and recognize your preference for the 2004 Cut-and-Cover Tunnel Alternative. After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.
There are specific impacts that WSDOT can compensate for, such as excessive noise and vibration levels or damage to property. However, impacts that are not quantifiable are generally not compensable. If you experience impacts during construction, please call our 24-hour hotline, 1-800-AWV-LINE.

The Final EIS and its Appendix G, Land Use Discipline Report, contain updated information about properties that would be acquired for the project.

Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information. The Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, provide additional details about the alternatives, construction plans, and potential construction staging areas. Appendix C, Transportation Discipline Report, of the Final EIS also provides more detailed information on parking.
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Although the Embarcadero Freeway had some similarities to the Alaskan Way Viaduct, it served a different function. The Embarcadero Freeway was primarily a way for drivers to access the regional highway network from downtown San Francisco. After it was taken down, traffic from the Embarcadero Freeway shifted to more than a dozen parallel streets that served the same neighborhoods. Traffic on some city streets increased by as much as 50 percent following the closure of the Embarcadero Freeway.
where there is to precedence and you have to look at
confusing facts and decide, "How are we going to do this
decision?"

In this case, though, about 25 years ago, in the
City of San Francisco, they had two freeways the same
vintage as these, almost exactly analogous, and they had a
large earthquake. On the Oakland Bay side it was the
Admiral Nimitz freeway and, more pertinently, in
San Francisco there was the Embarcadero Freeway. Major
arterial flows.

The Oakland Bay Bridge funneled eight lanes of
traffic over the top of it, and dropped it into the
Embarcadero freeway and the interstate coming from the
south into San Francisco, and both of those funneled into
the Embarcadero freeway, which was the only way to get
around the city to the Golden Gate Bridge.

The earthquake wound up having the Embarcadero
freeway having to come down. Parts of it was fallen, and
the other part of it had to be removed. And there was,
like today, there was, "We can't live without it."
"There's too many cars that go across it." "We'll never
survive if we don't have something like it." There was a
lot of gnashing of teeth with politicians, but a lot of the
populous did not like the freeway, because it blocked their
view. Sounds familiar? And it had been built at a time
when there were huge warehouses down there and there wasn't
anything, and it was a very bad part of the city, still.

The decision, finally, either due to it was easy or
because they listened to the people, was that they decided
not to replace it entirely. It's never been replaced. And
everybody survived. All of the traffic still gets through
from both of those. They go through the middle of
downtown. Is it easy to do? No, and not terribly
convenient, but they do get through there. All the people
who want to get from "A" to "B" do. The area flourished in
that it became, for walking, what used to be underneath the
freeway is now a great walking boulevard, a great greenery,
and people love the area now. There's all sorts of very
high rent condominium and other restaurants and
establishments in the area. The politicians are viewed as
absolute heroes now, those who made the decision to not
replace it.

My point is, that that's as good of an analogy as
you'll ever see to the situation we face now. If you don't
succumb to the pressure of saying, "We have to do
something," "We don't have any money, so we'll do something
cheap and easy," even if you do nothing, all those who say
we can't possibly survive are wrong, you will survive. The
ideal thing that you have to do, because you only get a
chance like this every 70, 80 years or so, in order to do
something monumental, is got that out of there as a view block.

If you really believe in tourism, and you really think this has got to be a great city, and it is, but that's one aspect of it that is an anachronism left from the past. Bring it down, do not replace it, put the freeway underground, that which you need, and turn that into a boulevard, much like San Francisco had. If you do, the politicians who make the decisions, you will also be viewed as great saints and heroes. If you build another one, that will be your legacy, and people will hate you for years.

That's it. Thank you.

DANIEL RAMRAS: Okay. I'm Daniel Ramras. I represent Triad Pier 70, LLC and numerous other Triad properties on the Alaskan Way thoroughfare. We own and occupy the Pier 70 property, which is at the foot of Broad Street, we own property two blocks north of Broad Street, and other property three blocks south of Broad Street. We own a parking lot a block east of the viaduct, on Seneca, and the Okay Hotel, which is directly adjacent to the Alaskan Way Viaduct. Therefore, we have substantial holdings and are going to be impacted dramatically by the Alaskan Way Viaduct Seawall Project. We are in favor of a tunnel option, a full tunnel.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project.

To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

The Broad Street underpass (referred to as the Seattle Art Museum underpass in your comment) is no longer included in the project, and this change is reflected in the Final EIS.

The Broad Street detour (referred to as the Broad Street overpass in your comment), includes a temporary aerial trestle over the BNSF railroad tracks at Broad Street. This detour route is only proposed for the Elevated Structure Alternative. The Final EIS describes the visual effects and increased traffic flow along Broad Street and the north portion of the Alaskan Way surface street. We acknowledge your comment and concern about these effects; and we emphasize that these effects will be temporary and would not occur with the preferred alternative. Both the temporary trestle (overpass) and the traffic detour route will be removed.

We are, again, extremely opposed to the concept of the Broad Street detour option, bringing all truck traffic from I-99 Southbound down Broad Street, onto Alaskan Way.

Thank you.

WILLIAM RAMIREZ: (Through the Spanish Interpreter.)

Good afternoon. My name is William Ramirez. I come on behalf of Casa Latina. I have one comment, and some concerns. For my comment I have two points that I'd like to make. Okay. So they've told us that they have a project with Viaduct, that they want to move, because of the Viaduct they want to move us to a different location.

Okay. So I would just like to mention that the place where the Castle Latina now is located, and where the workers congregate, is a place where we are together from early in the morning until late in the evening.

For us, Casa Latina is the area that we congregate, is very important, and it's very important for the Latino community in Seattle, Washington. So, the reason that it is so important for us is that we are working every day from this place to be able to support our families. I would like to ask, then, the City of Seattle and the administrative personnel of the City, that they consider this point: I would just like to ask that you consider when they are no longer needed to accommodate traffic during project construction.

FHWA, WSDOT, and the City of Seattle considered other detour options in this area; however, the agencies have agreed that the Broad Street detour is the best solution based on trade-offs of cost, effects, and overall efficiency.
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

WSDOT will comply with the federal requirements for disadvantaged business enterprise (DBE) participation. WSDOT cannot require contractors to hire workers from specific organizations. However, WSDOT can and does encourage contractors to work with local organizations and to develop programs that draw on the local labor pool.
very seriously where we will go if we are moved and, as
Hispanics in this country, what will happen to us as part
of this project.

So, my first point is that, as Hispanics and as
members of Casa Latina, so that they, in the projects, that
will be as construction and other projects, as part of the
overall Viaduct project, that they give us priority and
that they provide some sort of jobs for us to be part of
the overall project. And so, it would be acceptable, any
kind of position, a general laborer, or whatever kind of
position that we could have with the project, because
Casa Latina has qualified workers. They've been trained to
do various different types of jobs.

The second point, and I'll conclude after this, we
understand and we respect why the City is going to move us
from this place. I'd like to mention again, knowing that
the City is going to move us, and that they are going to
help us to find a new location, we ask that it be in a
place that is very easy for people to get to, and very easy
for the people who need workers to come to and pick up the
different workers. We need easy access. So, we know that
the City could put us in a very spacious place anywhere,
that they could find some extra space, but it's very
important for us to be in a place that's close to the
center, and that it's easy for the people who need workers
Okay. And that's it. Thank you very much.

PERMIN MONTANO: (Through the Spanish Interpreter.)

So, I agree that and I support that they have a new place for Casa Latina. And this is for our families, and so that we can support our families. And I would prefer that, if possible, that it be that the jobs that they find are more stable, longer lasting positions, rather than just a few days. Maybe more like six months is better for the Casa Latina workers, because the Casa Latina workers are very good workers, and they're good workers, they've come here to help the City of Seattle, and hope the opposite happens as well, that the Seattle citizens help the Casa Latina workers as well.

Another point, so, I would like that the support that Casa Latina will get to be more formal and happen sooner rather than later. So, I don't have much else to say, but just that hopefully we can get help and that everybody will do their part in order to make this happen.

I would also just like work. We'll all be more secure, if we have jobs that last for longer than just today. And because people are always going to be coming back, day after day after day, as it is now. Okay.

LUIS FLORES: (Through the Spanish Interpreter.) My name is Luis Flores, and I come on behalf of Casa Latina,
In March 2009, Casa Latina moved to their new building east of I-5 in the International District neighborhood. The new location is outside of the Alaskan Way Viaduct project area.

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okay, but I also have my own opinion.

They told us that they were going to move Casa Latina from where it is now, so I think, and also my colleagues at Casa Latina think, that this is going to greatly affect us. So, I come representing several other colleagues as well, and we want to ask the City that they help us find another place that we can find work. So, we would very much like it to be somewhere close to the downtown, because most of us don't have any transportation and we can't go to places that are far away on our own.

So, this way we will be able to continue work and go help our families.

So, there’s at least 1,000 to 1,500 new workers that come every year to Casa Latina to work with Casa Latina.

So, we need this place very much, but also the people who will come in the future need this place. So, the workers at Casa Latina are helping the City of Seattle, and helping to make it a prettier and nicer city. Okay. So we are helping homeowners improve their homes, and help to save them money by them using our labor.

And to the authorities and administrators that are managing this project, one more time, please help us. And we have faith in the authorities that they will help us.

DAN RANCHIU: My name is Dan Ranchiu. B-a-n-c-h-i-u. I'm a general manager at the Marriott Hotel.
We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.
The preferred alternative does not propose to construct a temporary viaduct structure along the waterfront (or in front of the Marriott Hotel) as shown in the 2004 Draft EIS Aerial Alternative. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

Economic impacts are discussed in the Final EIS and Appendix L, Economics Discipline Report, of the Final EIS. Construction activities along the central waterfront would interfere with access to businesses and properties adjacent to the project on either side of the right-of-way. The project team has met numerous times with the businesses and property owners in the project area to discuss construction plans and solicit input on a variety of mitigation strategies. Chapter 8 of the Final EIS discusses mitigation measure in detail. We anticipate coordination with nearby businesses and property owners to continue through the rest of the design and construction process.
We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.
As a neighbor adjacent to the existing viaduct and project construction area, your concerns are acknowledged. The project will continue to coordinate with the residents and businesses along Alaskan Way through open houses, newsletter updates, and e-mail. Mitigation measures addressing noise, parking, traffic, dust, and other factors of specific interest to residences and businesses are included in Chapter 8 of the Final EIS.

Since comments were received in 2004, the project has evolved. The lead agencies believe the information provided in the 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and the Final EIS do give the public a solid foundation of information to compare the alternatives and provide comments. In addition to information provided in the main body of the EIS documents, discipline reports containing additional detail and analysis are included on a CD attached to the back of each document and are located on WSDOT’s website.

Regarding the Draft E.I.S., as a resident who lives on Alaskan Way, I’m concerned that the document does not adequately discuss the impact to my home on Alaskan Way, given the increased possibility of increased traffic, potential public hazard with that increased traffic, and does not adequately address the concerns of the increase of pollution from the vehicles traveling through there, as well as the sound and noise pollution from the additional vehicles.

I’m also concerned that the inadequacies of this Draft E.I.S., as a public document, does not provide a strong foundation upon which the public can comment on the potential options for the viaduct. That’s all.

BOB MESSINA: All right. My name is Bob Messina, M-e-s-s-i-n-a. I live at 1301 North 90th Street. I come down to Alaskan Way for recreation via Myrtle Edwards Park, and I often walk the waterfront all the way to King Street Station.

After seeing the various options for replacing the Viaduct, my concern is to keep as much traffic off of Alaskan Way in the future as possible. Therefore, from all of these alternatives, the plan that keeps the most traffic off of Alaskan Way is the full tunnel option. And therefore, I support the full tunnel option. Even though it’s listed as the most expensive, it is not terribly much
Regarding the Draft E.I.S., as a resident who lives on Alaskan Way, I’m concerned that the document does not adequately discuss the impact to my home on Alaskan Way, given the increased possibility of increased traffic, potential public hazard with that increased traffic, and does not adequately address the concerns of the increase of pollution from the vehicles traveling through there, as well as the sound and noise pollution from the additional vehicles.

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After seeing the various options for replacing the Viaduct, my concern is to keep as much traffic off of Alaskan Way in the future as possible. Therefore, from all of these alternatives, the plan that keeps the most traffic off of Alaskan Way is the full tunnel option. And therefore, I support the full tunnel option. Even though it’s listed as the most expensive, it is not terribly much...
higher than the other options. So, I wholeheartedly
support the tunnel option because it, first of all, keeps
more traffic off of Alaskan Way and, secondly, it opens up
all of the green spaces and park blocks for pedestrians,
and the bicycle lanes, and much wider sidewalks. So, that
plan I'm recommending, as one voter tonight.

ERIN HOWSHAR: My name is Erin Howshar. I am a
resident on Alaskan Way, and I've lived there for
approximately four years.

I'm concerned about the Draft Environmental Impact
Study because I don't feel that it adequately addresses a
lot of issues that should be addressed for Downtown
residents. One, I don't feel it adequately addresses the
alternatives in a comprehensive manner. It only addresses
five alternatives, and does not address at all, routing
traffic other ways through the city and through the
downtown area. It does not focus on minimizing impact to
Downtown residents, and especially along the waterfront. I
don't feel that it adequately addresses the economic impact
that is going to be had to Downtown residents and business
owners along the waterfront, especially with regard to the
plan to build a temporary viaduct along Alaskan Way and in
front of many of the businesses and residences that are
downtown.

I don't feel that the Environmental Impact Study
Further analysis of alternatives was completed for the 2006 and 2010 Supplemental Draft EISs, and this Final EIS. The alternatives are described in Chapter 3 of the Final EIS. The Battery Street Flyover Detour shown in the 2004 Draft EIS has been eliminated.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. No residential displacements are expected with the preferred alternative. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

There are specific impacts that WSDOT can compensate for, such as excessive noise and vibration levels or damage to property. However, impacts that are not quantifiable are generally not compensable. If you experience impacts during construction, please call our 24-hour hotline, 1-800-AWV-LINE.
Fixing the larger transportation infrastructure through the downtown area is beyond the scope of this project. Please see Chapter 3 in the Final EIS for a description of each alternative in the project area.

We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.

Updated information on public services (including police, fire, etc.) is provided in the Final EIS. In addition, the content and level of analysis conducted for the document is consistent with the level of design to inform the public and decision-makers of the probable consequences resulting from the project or from inaction.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft
EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies' decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the 2004 Draft EIS and 2006 and 2010 Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent, though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.
We understand that members of the public may prefer different ways to share their comments. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team. The program team often holds open house-format public meetings to provide as much flexibility as possible to the public. With an open house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.
The 2004 Draft EIS accurately described the alternatives and options under consideration at the time it was written. The lead agencies published two Supplemental Draft EISs (in 2006 and 2010) that provided updated information on the proposed alternatives and construction plans. Each supplemental draft included a formal public comment period, during which several public hearings were held. The Final EIS provides the latest information on the proposed alternatives.

The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Additional traffic analysis for each proposed build alternative was presented in the 2006 and 2010 Supplemental Draft EISs and the Final EIS. In addition, each EIS includes a Transportation Discipline Report (Appendix C) that contains a substantial amount of information about traffic impacts and travel times.

Please see the Final EIS and Appendix L, Economics Discipline Report, of the Final EIS for current information on the economic impacts and proposed mitigation for the project. The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation
measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

**H-019-007**

The 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, Final EIS, and Transportation Discipline Reports provide detailed information about parking removals and effects. FHWA, WSDOT, and the City of Seattle are working with transit providers to determine transit routes and options during project construction. Mitigation measures are discussed in Chapter 8 of the Final EIS.

**H-019-008**

Construction will be challenging for many businesses and people. Possible mitigation measures are discussed in Chapter 8 of the Final EIS.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

**H-020-002**

After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.
Thank you for your comments. The purpose and need for this project is to replace SR 99 along the Seattle waterfront. The recommendations that you have provided are beyond the scope of this project.
then over to the peninsula.

And I'd say this should be there because, well, one thing is to replace that ferry system that the State is running, because that ferry system is a money loser. The people of the state are subsidizing that thing, and I think that it's about time. This is the 21st Century age, and we can't do something there that's -- or start way back in the 19th Century and using 19th Century ideas, but go into the 21st Century age. That's something we can be able to think about.

We can make this a toll, the whole thing, starting from the Vashon Islands and going into Seattle downtown area, over to West Point and over, and make that entire route a toll road. And I'd say a toll road and a toll bridge, because I think a toll system will work a lot better, if they were all connected, all the bridges and the Alaskan Way Viaduct.

And from the past history, this is something that's not new, it's been started with this idea that was thought about way back in, I'd say, the early 40's, and they were planning to do something like this, you know. The idea about having a cross Sound bridge, the idea was favored by even one of the governors who was a Republican governor, by the name of Arthur Langley. But, he was all in favor of doing something like this, because at that time the ferry
system was privately owned and they were trying to build
the money or, I should say — yeah, they were trying to
vote the people out of raising the fare every damned time,
and it was getting very expensive for people to be paying
this amount of money, so the State went and stepped in and
they said — and they were trying to control it, as far as
the pay increase on the toll, I should say on the — you
know, yeah, they were trying to increase the fare on the
ferry. But, so, when the State came out with this idea,
well, we're going to put in a bridge and that would just —
and they told them, "Well, you guys are not going to be in
business after we put the bridge in," which was sort of a
black mailing somewhat. And so they said, "Well, the thing
you can do is just sell the ferry system to us, and then
we'll build this bridge, and then the ferries, we won't
have the use of the ferries no more."

Well, the thing is, the State went and bought out
the ferry system, but they never ever built the dog gone
bridges, so for the last 50 years it's been sort of a
concept and an idea that many people like myself still do
remember that. And I say now is the time that we should
start thinking about doing something like this, rather than
having a ferry system which is doing nothing but just
costing us money every damned time that we have our eyes on
the damned thing. That just doesn't seem to make any
sense, to go out and subsidize it. So, if they say, "Well, as far as how much it would cost to put up a system like this," well, who knows? It may cost maybe about $100 billion. Well, you know, when they built the first Lake Washington bridge, they said that the cost would be over $10 million or something. And people were saying were squabbling back then, they were squawking the darned thing was expensive, it would never ever work, you know, and they were trying to fight it from going in. But I think they were fighting for something like about 5 years or 10 years, or whatever it was, but they finally went and built that thing, and after they built that thing, that thing made money. They were expecting the thing would be paid for within about 20 years. They've had that thing paid off in about 5 years.

And, when they put in the Tacoma Narrows Bridge, the first one, when it went down, it was about the same time that they opened up the Lake Washington Bridge, the first one. Well, when they built the second one there, which is back in 1950, they built it more sturdier, and it cost about twice as much as the first one that they built up, and that thing got paid off in something like 14 years or so. And the same thing happened to the Evergreen Bridge. That was on — they were all paid off by tolls. Whoever uses that thing, you know, it was — it's a — you know,
users pay. That works. So, it didn't cost anybody
anything else, except the dog gone people who were using
the thing. So, it makes sense to do something like that.
If they can, you know, build the cross Sound bridge,
the two cross Sound bridges, and then have this, you know,
Alaskan Way Viaduct included with it, and make that entire
route a toll road or toll bridge. But, I think just, you
know, if either one of them would just had stand alone on
the thing, I don't think it would work because, you know,
you got to have a connection of some kind in order for
these, you know, the three places to — two cross Sound
bridges, and that connecting of Alaskan Way Viaduct.
Anyway, that's what I got to say on that.

BRUCE PINE: My name is Bruce Pine, and I live on
the waterfront. I'm concerned that they have not addressed
adequately the motion of having traffic be either
eliminated, or substantially impeded, during the
construction period. It appears that there's a presumption
that traffic needs to continue to flow through this area
while construction is going on, as a result of which there
are a number of mitigation, temporary measures, and so
forth, which extend the construction time and substantially
divert resources from the actual project to these temporary
mitigation issues.
I would like it see them consider a couple of
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Some projects in the area, such as the section of Mercer Street between Dexter Avenue and I-5 are currently under construction. The Final EIS discusses other projects under construction at the same time as the viaduct replacement in Chapter 6. The project team is endeavoring to reduce the construction impacts on all affected neighborhoods.
H-022-003

Washington State Ferries (WSF) is part of the State Department of Transportation. The lead agencies have coordinated with WSF from the onset of this project regarding the ferry access and egress operations during and after construction. For the preferred alternative, a temporary northbound lane would be added during construction to accommodate ferry traffic.

Cumulative construction impacts have been analyzed in Chapter 6 of the Final EIS.
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent; though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.

More detailed information about construction effects and mitigation has been provided in the 2006 and 2010 Supplemental Draft EISs and the Final EIS. Additional details about mitigation can be found in Chapter 8 of the Final EIS. The 2004 Draft, 2006 and 2010 Supplemental Draft, and Final EISs all considered effects to people, surrounding neighborhoods, and the natural environment (including known species in the project area). Effects were not evaluated using a "prototype person," rather, effects to the general population are discussed.
Thank you for stating your preference to minimize the construction duration as much as possible. Construction durations are discussed in Chapter 6 of the Final EIS.

they're trying to assess these impacts? Do they assess
them against people that are young and healthy, or old and
infirm, or children, pets. You know, the variety of living
creatures on the waterfront of varying ages and types, I
don't think have been adequately evaluated for the effects
that this construction would have on them. And so, I would
like to see the E.I.S. spend more time on that.

And once again, my thinking is that you minimize the
construction period as much as possible, and so, whatever
the affects are on those variety of individuals, those
become minimized to the extent possible and, then again,
spread it around to other communities. I think that's all
I have to. Say. Thank you very much.

SCOTT KRAFT: I do not believe that the E.I.S. does
not adequately address negative affects on the residents of
the waterfront during the construction, or consider options
to reduce these negative affects. Specifically, the E.I.S.
does not adequately address the option of the shortest
construction periods. All the alternatives seem to be
based on maintaining the current traffic flow during the
construction and, thus, leading to longer construction
periods and costs, reduced construction costs created by
shorter construction periods and minimizing traffic detours
during construction, and economic impacts during
construction on the waterfront related to reduced property
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
Pedestrian access and safety on the waterfront will be maintained at all times during construction activities. At times, it will be necessary to reroute pedestrians using temporary facilities and detours, but these detours will be designed to minimize any inconvenience and would be ADA compliant. Any sidewalk, path, or the pedestrian bridge to Colman Dock that may be removed to accommodate construction activities will be replaced with a temporary facility in a nearby location with equal capacity. Wayfinding signs will also be placed to help pedestrians access the waterfront, Pike Place Market, and other sites in the corridor.

Further information on how the Project will address pedestrian access and safety during construction activities can be found in Appendix C, Transportation Discipline Report, of the Final EIS.

The BNSF Railway has not expressed interest in altering its tunnel as part of the project.
The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

Please refer to the Economics Discipline report, where you will find discussion related to the potential economic effects of the project. WSDOT cannot speculate as to how the various factors that influence property values will come together at some future time.

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each
alternative and its construction plan, and Chapter 6 describes construction effects.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.

I love Seattle, and even when I lived in Alaska, I always enjoyed visiting Seattle. One of my favorite areas to visit was the waterfront. I fell in love with it before I ever moved here. Since I moved here I've enjoyed, immensely, living in Magnolia. My business is located in Magnolia, however, we have customers all over Puget Sound. Many of our customers are in West Seattle and Renton, and for our business we frequently visit those customers, we use the Viaduct, we consider Highway 99 a vital transportation link for us. I-5 is not a good substitute for that, so we consider whatever it takes to make Highway 99 a viable transportation artery, and to continue to be that, is an important priority for government and for citizens of Seattle King County and Washington State.

I will say my background has been working in utilities and transportation, and I currently own a computer services company. When I worked in utilities I did feasibility studies for two hydroelectric projects that were built in Alaska. One was Tie Lake, and the other one was Terror Lake. I also worked on a hydroelectric project that was not built, called the Susitna Project.

Having been through that experience, I know the great benefits from the projects that were built, and I know the
As a citizen of Seattle, I believe that taking the same road of not building the correct transportation artery for the viaduct replacement will have the same impact as not building the Susitna hydro project. It will be a great opportunity lost for the citizenry of Seattle, as well as Washington State.

I also, when I moved to Seattle, worked on the Metro Tunnel project and the West Point Treatment Plant project, secondary treatment project, doing cash management when employed at Metro. I know about building large projects, and I know what it takes in terms of the financing and the resources to do those projects. It seems to me that I'd like to make four points in my testimony here on that. One is, many people are saying right now that we don't have the money to spend or we don't want to spend this money on doing this project, or we want to do the least amount of spending on this project. Most of those people who are pleading that we can't afford to do this have their own priorities. Many of them are supporting Light Rail, many of them are supporting the Monorail. Some of them just want to plead the need to cut taxes or to keep taxes down. I believe that pleading poverty is an attempt to stop the argument for doing the
right thing about the viaduct replacement, without really ever allowing the arguments or the merits for all the different alternatives to be considered. I also think that it's absolutely not true that we can't afford the project. In fact, we have both the tax base and the revenue to afford it, and I can say this from having looked at all the various bond rating agencies' criteria, and certainly a $4-billion dollar project or a $2-billion dollar project could be afforded easily by the citizenry of Seattle, King County and the State of Washington. We have the tax base, we also have the opportunity to use non-tax financing, as in tolls, for instance. All of those could certainly pay for this project over a reasonable period, 30, 40 or even 50 years for financing.

My second point, the most expensive option is usually not considered to be the best case. In many projects people look for the lowest cost option. However, in this case the most expensive option appears to be the best option. And when we say the most expensive, I mean the most expensive up front cost. In this case we’re talking about spending $4-billion to build a tunnel to replace the aerial viaduct. The other options, the aerial option and the surface option, have some real deficiencies, whereas the tunnel provides a great opportunity, not only
to meet the transportation problem, which it does quite
well, and actually provides better than any other
alternative for future transportation growth, but it also
fixes the problem of the Seawall, which needs to be
replaced, and frees up the space currently occupied by the
Viaduct. This permits the expansion and development of the
waterfront.

The aerial option would maintain the same dominance
that the current viaduct has over the land, and will
actually cause the transportation problem to not be
improved. We still will have to replace the Seawall,
regardless of whether we do the aerial option or a tunnel
option.

The surface option actually exacerbates the
transportation problem. It also dominates the land,
actually, in a much worse way than the aerial option does.
Worse, it cuts off the waterfront from the rest of the
city, causing that area to become potentially an
economically wasted area.

In addition, the aerial option and the surface
option actually lend themselves to earthquake
vulnerability, as that area is a fill area, and only by
building a strong, secure Seawall and proper foundations
can we ensure that that area is not subject to immense
earthquake damage.
I would say the bypass tunnel is also insufficient in that the capacity of the tunnel is just not worth the cost. If we're going to build a tunnel, we might as well do it right and build the full tunnel.

My third point is we have an opportunity to develop a waterfront neighborhood. The Mayor of the City of Seattle has exercised leadership in this area, has been conducting a community based effort to look at how we could develop and strengthen the waterfront neighborhood and develop strong ties with both the Downtown and the Bell Town neighborhoods.

In addition, we can also provide for the stadium in providing parking and enhanced use of the stadium areas, along with building a central area for community activities in the area vacated by the old viaduct when it's torn down.

What we need is a framework for financing this project. First of all, we can and should receive federal highway funds. Second, we should look to revenue bond fundings. We can do this by securing the bonds through toll collection and by establishing a local improvement district for all the businesses which would benefit greatly in the area of the waterfront. In this we should be liberal. We should look all the way up to businesses on Second Avenue, down to the waterfront, in establishing the
Finally, we should look at some general obligation bond financing, which would include property tax and vehicle licensing tax revenue, as the basis for the general obligation bond financing.

I also went to conclude by saying that I was privileged at one time to listen to Ezra Solomon, who is a tremendous Ph.D. economist, who talked about projects such as the Viaduct replacement project. And he pointed out that frequently when doing these projects people tend to overlook the extraneous costs of doing a particular alternative, and also overlook some of the benefits. He called these spill-outs and spill-ins. In the case of most of the options, there's a tremendous spill-in for the project, in terms of the aerial options or the surface option or even the bypass tunnel, and that is that they not only do not directly solve the transportation unit, but they don't lend themselves to developing the community. There's a tremendous spill-out from the project, in a positive way, in terms of the tunnel, where it does allow us to greatly promote our community and to build a strong Downtown, Bell Town and waterfront area, in addition to providing for the transportation of today and tomorrow.

And so, I hope that those people who are deciding upon how to do this project and on which options to
proceed, do not get caught up in a bigger type philosophy of "We can't afford it." We absolutely can afford it, and we absolutely should, in this case, build the most high cost alternative, which is the tunnel. Thank you.

**0000**
The S. Holgate Street to S. King Street Viaduct Replacement project is under construction, and the lead agencies have coordinated closely with the Port of Seattle and BNSF to develop a design and construction approach that ensures freight access to Terminal 46, maximizes rail operations, and provides safe crossings at S. Atlantic Street. Realignment of the corridor to the east was one idea considered early in the project, but it was not carried forward due to design constraints and potential impacts to the SIG rail yard. The lead agencies will continue to coordinate with the Port of Seattle and BNSF regarding construction of the preferred Bored Tunnel Alternative.
access to Terminal 46 is maintained and that a better
program of realignment to the south at Pier 25 and what's
now Pier 30 is addressed.

So, I would like to see the Port, the City, the
State Department of Transportation, sit down, and included
in that the BNSF Railroad, and work out a realignment of
that whole viaduct situation there where it would join the
new Downtown Seawall and Viaduct Project. Thank you.

ANDREA MENIN: I want to register my comments about
the Seawall and Viaduct replacement. I would like to see
them build a tunnel. Even though it's the most expensive,
it seems like the best alternative. I don't mind if it's a
bypass or a regular tunnel, as long as it gets tunnelled.

That's it.

What do you think, Anna?

ANNA CREAN: Same as her.

ANDREA MENIN: Same as me? Can you say it louder?

You kind of want an aerial thing, don't you?

ANNA CREAN: I don't really care.

ANDREA MENIN: You don't really care? Do you want
to be able to look down at the traffic, like you do now, or
do you want to be able to go underneath it?

ANNA CREAN: Look down at the traffic.

ANDREA MENIN: So she wants an aerial.

AARON GOSS: I think we should take the Viaduct down
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

FHWA, WSDOT, and the City of Seattle appreciate receiving your thoughts regarding the Draft EIS alternatives.
Many people asked the lead agencies to consider an alternative that would remove the viaduct and replace it with a four-lane surface roadway along Alaskan Way and include transit improvements. Without a host of improvements and modifications, a four-lane Alaskan Way would create even more congestion on I-5 and downtown streets than the alternatives evaluated in the Draft and Supplemental Draft EISs. Transportation studies performed for this project indicate that replacing the viaduct with a four-lane surface street would substantially increase congestion for most of the day and part of the evening on I-5 through downtown Seattle, downtown streets, and Alaskan Way. On downtown streets, traffic would increase by 30 percent, though traffic increases to specific areas like Pioneer Square and the waterfront could exceed 30 percent. With a four-lane roadway, traffic on Alaskan Way would quadruple to 35,000 to 56,000 vehicles per day compared to about 10,000 vehicles today. This traffic increase would make Alaskan Way the busiest street downtown, carrying more traffic than Mercer Street does today. The increased traffic congestion would also make travel times worse for buses, making transit improvements along these streets largely ineffective. Finally, neighborhoods west of I-5 (Ballard, Queen Anne, Magnolia, and West Seattle) would be less accessible and would face longer commute times.
and replace it with a park and living space. I want that
to be one of the alternatives. Make it the sixth
alternative, the do nothing alternative.
**0600**
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

Further evaluation of construction traffic impacts has been included in the Final EIS and Appendix C, Transportation Discipline Report. This evaluation further defines and identifies traffic impacts caused by diversions onto surface streets, potential traffic volumes and congestion levels, and travel times. Additional information on economics can also be found in the Final EIS and Appendix L, Economics Discipline Report.
Please refer to Appendix L, Economics Discipline Report, where you will find discussion related to the potential economic effects of the project. WSDOT cannot speculate as to how the various factors that influence property values will come together at some future time.

Additional economic discussion and analysis is presented in the Final EIS and Appendix L, Economics Discipline Report of the Final EIS. The lead agencies plan to maintain access to businesses and residences throughout construction. Temporary limitations and any required changes to access during construction will be mitigated to the extent practicable. Mitigation measures for parking, pedestrian and vehicle access, and business assistance are discussed in Chapter 8 of the Final EIS. The project team will continue their coordination and mitigation activities with local businesses and residents, freight/delivery companies, the Port of Seattle, neighborhood groups, and other affected groups.

The lead agencies recognize that businesses along the central waterfront, Western Avenue, and Pioneer Square rely on the short-term parking in the area. The City of Seattle Department of Transportation (SDOT), in coordination with the project, has conducted parking studies as part of the process to develop mitigation strategies and better manage the city’s parking resources. SDOT’s studies identified a number of strategies to offset the loss of short-term parking in this area, including new or leased parking and the increased utilization of existing parking. Although the mitigation measures would be most needed during construction, many of them could be retained and provide benefits over the longer term. Specific parking mitigation strategies have not yet been determined, but the project has allocated $30 million for parking mitigation. The parking mitigation strategies will continue to evolve in
coordination with the project and community partners. Parking measures under consideration and refinement include:

- Encourage shift from long-term parking to short-term parking
- Provide short-term parking (off-street), especially serving waterfront piers, downtown retail, and other heavy retail/commercial corridors
- Implement electronic parking guidance system
- Provide alternate opportunities to facilitate commercial loading activities
- Develop a Center City parking marketing program
- Use existing and new social media and blog outlets to provide frequent parking updates
- Establish a construction worker parking policy that is implemented by the Contractor

Refer to the Parking Mitigation during Construction section in Chapter 6 of the Transportation Discipline Report (Appendix C of the Final EIS) for additional information.

**H-029-006**

As a neighbor adjacent to the existing Viaduct and project construction area, your concerns are acknowledged. The project will continue to coordinate with the residents and businesses along Alaskan Way through open houses, newsletter updates, and e-mail. Mitigation measures addressing noise, parking, traffic, dust and other factors of specific interest to residences and businesses are included in Chapter 8 of the Final EIS.
Currently, freight trucks carrying flammable or combustible liquids, as well as other hazardous materials, are not allowed in the Battery Street Tunnel and would not be allowed in a new tunnel. Flammable and hazardous materials may also be precluded from an elevated structure, at the discretion of the Seattle Fire Department. Transport of these materials is prohibited on the existing viaduct during commute hours today. Measures will be in place to ensure that tankers carrying flammable or combustible liquids, as well as other hazardous materials, can still move through the city on alternate routes. The project team is committed to working with the freight community to define alternative routes.
are pretty small, but at least they're very, very important. The maritime sector that works in the Lake Washington Ship Canal are primarily served by two fueling facilities, one being Covich and Williams and one being Ballard Oil.

The entire maritime industry is primarily served out of four fixed facilities in the whole State of Washington. It's our responsibility to assure that those maritime fishing industry vessels are supplied with fuels, lubricants, et cetera.

If we accept a tunnel solution based on the current regulations of the Seattle Fire Department, which would be the governing controlling agency, then it will be impossible for us to remove combustible, flammable or materials, primarily the combustible materials.

We need to service this industry from Harbor Island to Ballard. There are days when we have a lot of business with the fishing industry, and we can require as much as 15 truck and trailer loads a day from each of us, which effectively could be 30 truck and trailer loads a day. So, therefore, the tunnel solution requires that there be no flammable, at least from the things we're seeing, to be no flammable and/or combustible materials entering that tunnel.

If we do a rebuild or an aerial solution, we will be
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Rebuild Alternative. After studying several retrofitting concepts, the lead agencies found that rebuilding the viaduct would not be a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative, which was analyzed in the 2006 Supplemental Draft EIS and the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
Freight connections are important to the region, and the conditions for freight under each alternative are discussed in the Final EIS. While traffic during construction will be more difficult, providing a safe facility will benefit both the general public and the maritime community.

The Bored Tunnel Alternative does not include rebuilding the Elliott and Western Avenue ramps, while the Cut-and-Cover Tunnel and Elevated Structure Alternatives would provide these ramps. However, with the Bored Tunnel Alternative, access to and from neighborhoods and commercial interests would be provided by on- and off-ramps north of Denny Way, and in the stadium area just south of downtown as described in Chapter 3 of the Final EIS.
will just be gridlocked, no matter what have we do.

NORMA SOARDAL: I prefer the aerial construction for
replacing the Viaduct. Of course, we need a seawall,
that's for sure. Thank you.

ELWOOD R. LATTU: I'm here to protest tearing the
Alaska Viaduct down because I don't think there's been
enough studies to look into repairing it. Because, it's
one of the jewels of Seattle. It's a jewel of the Seattle,
because how can we ever look at the Ocean when they put in
a tunnel?

And many people in this Seattle appreciate the
Viaduct when they go to work every day. I think they
should put more effort on the repairs to bring it up to the
earthquake specifications. And there's some studies out
now that say this is feasible. I think there should be
more effort in saving the Viaduct, than going through all
the expense that we would have to incur to replace it, no
matter what it is, and we don't have that type of money.
And we should have a committee to look into this.

That's the end of my — I think I should add also,
that the expenses incurred should be used in other ways,
because we're in big trouble here in Seattle. And it
appears that developers are pushing this more than common
sense.

KATHLEEN MCLoughlin: I'm for the tunnel. I think:
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Aerial Alternative. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative to meet today’s safety standards while minimizing the effects of a wider structure. This alternative was analyzed in the 2006 Supplemental Draft EIS, and the design was refined in the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Rebuild Alternative. After studying several retrofitting concepts, the lead agencies found that rebuilding the viaduct would not be a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. Elements of the Rebuild and Aerial Alternatives were incorporated into the Elevated Structure Alternative, which was analyzed in the 2006 Supplemental Draft EIS and the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.

Repairing (or retrofitting) the existing structure has been analyzed as described in the 2004 Draft EIS, 2006 Supplemental Draft EIS, and the Final EIS. The lead agencies determined that repairing the existing structure would not be a wise investment, because it would cost 80 to 90 percent of a new structure, would only have one-third of the lifespan, and would not provide any safety improvements such as wider lanes and shoulders.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information. If the viaduct is replaced with a tunnel, very little land would become available for commercial or residential redevelopment. What land is freed up will be located in small parcels at sporadic locations along the waterfront where the viaduct is currently located. The Cut-and-Cover Tunnel would not be designed to support development on top of it and would occupy approximately two-thirds of the Alaskan Way right-of-way. Another major development constraint is the major utility lines running underground, both above and to the east of the tunnel. These major utilities, including very large drainage pipes, conveyance pipes, and electric transmission lines, all require ongoing maintenance access, which makes development infeasible.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. After the 2004 Draft EIS was published, your comments along with others led to additional planning, analysis, and the revised alternatives presented in the 2006 Supplemental Draft EIS. Following publication of the 2006 Supplemental Draft EIS, there was not a consensus on how to replace the viaduct along the central waterfront. A public vote was held on March 13, 2007. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2004, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2004 Draft and 2006 Supplemental Draft EISs, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies’ decision to identify the Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
I have been so appalled at some of the remarks. I have detested the Viaduct for as long as I've lived in Seattle, and that's most of my life. It is a visual obstruction, it is an auditory imposition on its area, and it's awful. And the idea that the view of a few people driving through should be favored over the people who live, work, actually get out of the cars and walk there, is incredibly selfish, to my mind.

I don't like the surface solution because it puts a freeway at the surface level, it would be awful, it would make crossing dangerous, and the noise would be just as bad as it is now. I don't like the aerial or the replacement, because it's continuing the problem. The tunnel was extremely expensive when it was first proposed, but they have reduced the cost of it to the point that I don't see why it should even be questioned anymore. The bypass is too much of a cut. It doesn't serve the needs.

I think the choice is clear, you need to tunnel. We need to stop talking about it, we need to start doing it, we need to get it funded. And I hope that that's what happens.

BRIAN FREDERICK: Okay, My name is Brian Fredrick, and I am a resident, and I live on Alaskan Way, in Seattle.

I would like to address two inadequacies of the CEPA
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
The 2004 Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS considered impacts on residential uses in the project area. Few direct impacts on residential properties were identified, and no residential displacements would occur along Alaskan Way.

As discussed in the Final EIS, residences immediately adjacent to the proposed project corridor may be affected by various construction-related impacts such as increases in noise, dust, and traffic congestion. The project would also displace existing parking spaces in the project area, which may affect visitors to residential and other properties on Alaskan Way. The discipline reports on Noise (Appendix F), Air Quality (Appendix M), and Transportation (Appendix C) address these impacts. Mitigation measures are also addressed in the discipline reports and in Chapter 8 of the Final EIS.
After the 2004 Draft EIS was issued, numerous comments were received relating to the visual impacts and other negative effects of the Battery Street Flyover Detour. As the design plans for the Cut-and-Cover Tunnel and the Elevated Structure Alternatives evolved, the Battery Street Flyover Detour was eliminated.

All funding plans under consideration would secure bonds or other commitments to ensure the project would be completed.
If the preferred Bored Tunnel Alternative is selected, the configuration of Alaskan Way will be determined by the City of Seattle's Central Waterfront Project. The configuration of Alaskan Way for the other build alternatives is described in Chapter 3 of the Final EIS.

Please refer to the Final EIS and its Appendix C, Transportation Discipline Report, for information regarding traffic flow, parking, transit, and pedestrian access for all the proposed build alternatives.

As noted in H-037-001, the Battery Street Flyover detour has been eliminated.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2004 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004, please refer to the Final EIS for current information.
The tunnel's ventilation system is being designed with sufficient capacity to ensure that pollutant levels within the tunnel do not reach unhealthy levels during slow traffic conditions.

There should not be any impact of the tunnel's discharge on water systems, because essentially the same amount of emissions will be generated with or without the tunnel alternative. These emissions, which are generated by the vehicles traveling on the affected roadway, would be released directly into the atmosphere with an elevated roadway and indirectly via the vent stacks at the tunnel operations buildings and the tunnel's portals. However, since the total amount of emissions are the same, there should be no affect on the area's water system.

Since 2006, the plans for the ventilation system have evolved along with the alternatives. The ventilation system would not require 100 percent redundancy. The tunnel's ventilation system satisfies the National Fire Protection Association's (502) safety requirements for road tunnels. Please refer to the Final EIS and Appendix M, Air Quality Discipline Report for current information on ventilation and the tunnel operations buildings.

Thank you for your thoughts regarding the format of the meeting. We hope that the project representatives at the meeting were able to answer your questions and provide feedback directly to anyone who needed information. In order to encourage as much feedback as possible, we provided several options. At the hearings, attendees could submit comments on a written form, on a computer using an electronic form, or verbally to a court reporter. In addition to the meetings, the public could submit comments by mail or e-mail to the program team.
The program team often holds open-house format public meetings to provide as much flexibility as possible to the public. With an open-house format, hearing participants are able to come and go to the meetings as their schedules allow, making the meetings more convenient for many people.

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. As a result of the comments received on the 2006 Supplemental Draft EIS, additional planning and analysis was conducted and presented in the 2010 Supplemental Draft EIS.

After the 2006 Supplemental Draft EIS was published, there was not a consensus on how to replace the viaduct along the central waterfront. In March 2007, Governor Gregoire, former King County Executive Sims, and former City of Seattle Mayor Nickels initiated a public process called the Partnership Process to develop a solution for replacing the viaduct along the central waterfront. Details about the project history are described in Chapter 2 of the Final EIS. Because the project has evolved since comments were submitted in 2006, please refer to this Final EIS for the current information.

In January 2009, Governor Gregoire, former King County Executive Sims, and former Seattle Mayor Nickels recommended replacing the central waterfront portion of the Alaskan Way Viaduct with a single, large-diameter bored tunnel. After the recommendation was made, the Bored Tunnel Alternative was analyzed and compared to the Viaduct Closed (No Build Alternative), Cut-and-Cover Tunnel, and Elevated Structure Alternatives in the 2010 Supplemental Draft EIS. The comments received on the 2006 Supplemental Draft EIS, subsequent Partnership Process, and the analysis presented in the 2010 Supplemental Draft EIS led to the lead agencies' decision to identify the
Bored Tunnel Alternative as the preferred alternative for replacing the viaduct along the central waterfront.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

With the preferred Bored Tunnel Alternative, replacing the seawall would be a separate project, because the failing seawall does not have the potential to affect the seismic stability of this alignment. The Cut-and-Cover Tunnel and Elevated Structure Alternatives include replacing the seawall. Please see Chapter 3 in the Final EIS for a description of the current configuration for each alternative.

Because of the very wide range of taxes and assessments, it is not possible to calculate exactly how project costs will affect individual taxpayers.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

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Harvey L. Rosenbloom
530 Tenth Avenue East, #104
Seattle, Washington 98102

I wish to have a tunnel and a greenway or I wish nothing. I think every other politician in the city and county has promised that. I'd like to see it come to fruition.

I do not wish to see the original viaduct rebuilt as such. I would like it opened up into a greenway and a direct view to the sea.

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Public Hearing, 9/7/06 - Comments by Harvey L. Rosenbloom
While the University of Washington is not in the study area for the Alaskan Way Viaduct Replacement Project, highway corridors leading to and from the University could experience residual congestion due to traffic impacts from project construction activities. WSDOT, King County, and the City of Seattle have developed transportation improvements to minimize traffic effects during construction to keep people and goods moving. Mitigation measures would ensure that transit remains a viable option for passengers traveling in the project area. The lead agencies will also coordinate closely with transit providers throughout construction. In the Final EIS, construction details are described in Chapter 6 and mitigation measures are described in Chapter 8. Additional information on transit is also included in Appendix C, Transportation Discipline Report, of the Final EIS.

Protecting the environment is important to the lead agencies. The appendices to the Final EIS present an extensive amount of analysis conducted for both the built and natural elements of the environment. Mitigation measures have also been developed and are discussed in Chapter 8 of the Final EIS.
because Seattle is a beautiful place, and it would be
a shame if a construction project took that away. So
thank you very much.

(Public comments concluded.)
The alternatives analyzed in the Draft EIS, 2006 and 2010 Supplemental Draft EISs, and Final EIS did not include items other than those directly relating to replacement of the existing viaduct. Other modes, such as the personal transportation system, do not address the project's purpose to protect public safety and provide essential vehicle capacity to and through downtown Seattle.

Ryal White
Renton, Washington

Basically, I favor the elevated rail system, elevated transportation system, but I would also incorporate a small personal transportation system, which one system is called SkyTran, and they have a website called SkyTran.net, and I'm passing out some of this literature tonight.

Basically, it's just a design that was thought about back in the mid '60s by General Motors, and the price -- or the cost wouldn't be that much because it's an old General Motors design. Basically, you call them and tell them you'd like to build this system. Like the states that fought to get the Saturn plant built in their states, it would be the same principle, and I believe General Motors would run to build this project.

(5-page document attached.)
I think the city council and the state government should push for building a tunnel to replace the Alaskan Way Viaduct to improve the view of downtown. Even though I’m a West Seattlite and I use the viaduct, but I think it’s the most beautiful highway in urban Washington, I still would rather have more people be able to see the waterfront from downtown, and I would like to get to North Seattle or downtown quickly in a tunnel.

I think you should replace the seawall and make it part of the tunnel wall; do it right for the next hundred years and also do it quickly because it’s going to save money. Don’t bother doing it in medium-slow fashion, but just shut down the tunnel, get people to change their behavior, and get it done with even if it takes four years.

For mitigation, I would -- from the south end anyway, I would like to see Fourth Avenue off -- Fourth Avenue ramps from the Spokane Street Bridge reopened, Spokane Street widened, and surface streets opened and without allowing parking so that you can get downtown, bus routes, light-rail going as soon as

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H-044-001

FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The alignment for the Cut-and-Cover Tunnel Alternative has been refined in the Final EIS. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project’s identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

H-044-002

The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

H-044-003

The City of Seattle's S. Spokane Street Project is under construction, and a new ramp connecting eastbound S. Spokane Street traffic to Fourth Avenue S. opened in August 2010. This will help divert some in-
bound traffic off of First Avenue S. New westbound on- and off-ramps from First Avenue S. to S. Spokane Street are expected to open in Fall 2011. Widening of the S. Spokane Street Viaduct from E. Marginal Way to Sixth Avenue S. is expected to be completed around May 2012.

Impacts to traffic during construction have been analyzed as part of the transportation planning process for construction and are described in the Final EIS Appendix C, Transportation Discipline Report. A comprehensive list of traffic mitigation measures, including the need for temporary parking restrictions on select streets during peak travel periods, have been identified and are included in Appendix C and Chapter 8 of the Final EIS. Mitigation measures will continue to be refined in cooperation with the lead agencies and other agencies.

H-044-004

Thank you for your comment regarding bicycle facilities. Bicycle access will be maintained during construction activities. At times, it will be necessary to reroute bicycles using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Mitigation measures for the project are described in Chapter 8 of the Final EIS.
The preferred Bored Tunnel Alternative is a safe alternative. Generally, structural engineers agree that tunnels are one of the safest places to be during an earthquake, because the tunnel moves with the earth. No Seattle tunnels were damaged during the 2001 Nisqually earthquake, including the Mt. Baker and Mercer Island I-90 tunnels, Battery Street Tunnel, Third Avenue Bus Tunnel, and Burlington Northern Tunnel.

The bored tunnel would be built to current seismic standards, which are considerably more stringent than what was in place when the viaduct was built in the early 1950s. The bored tunnel design includes improving relatively soft, liquefiable soils found near the south tunnel portal. Emergency exits would be provided every 650 feet in the tunnel. Project engineers have studied current data on global warming and possible sea level rise and concluded that the seawall provides enough room to protect the tunnel from rising sea levels. The engineers also considered the possible threat of tsunamis during the design process.

Although costs are an important part of project planning and decision-making, they are purposely not part of the environmental review process.

The lead agencies recognize that retrofitting highways, roadways, and bridges is often a viable option to counter earthquake threats. However, unlike other bridges and structures in the area, it isn’t practical to retrofit the viaduct by only strengthening one or two structural elements. Fundamentally, such fixes transfer the forces from one weak point in the structure to another, and the viaduct is weak in too many places. The concrete frames, columns, foundations, and even the soil under the structure don’t provide enough strength by today’s standards. The lead agencies have studied various retrofitting concepts, and all of these concepts fail to provide a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state.
of the viaduct. The lead agencies also determined that retrofitting 20 percent of the viaduct as discussed for the Rebuild Alternative is not reasonable.

useful for many years to come. There's no fractures in the rest of the columns. I walked the whole length of it. That's about the sum and substance of it. It's very, very well built.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the 2006 Cut-and-Cover Tunnel Alternative. The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative due to its ability to best meet the project's identified purposes and needs and the support it has received from diverse interests. Because the project has evolved since comments were submitted in 2004 and 2006, please refer to the Final EIS for current information.

The Bored Tunnel Alternative might create some opportunities for development in the project area. It is expected that future development will be determined by economic conditions and zoning in place on adjacent parcels. Thus, while it is possible that adjacent parcels may attract development interests, land use regulations and economic forces will likely determine the type of development that occurs in the project area as discussed in Appendix L, Economics Discipline Report, of the Final EIS.

During construction there will likely be some delays to traffic travelling north from West Seattle. Please refer to Chapter 6 in the Final EIS and Appendix C, Transportation Discipline Report, for more information.

Although the construction of the new ramp is an element of the S. Spokane Street Project (independent from the Alaskan Way Viaduct Replacement Project), this connection will improve both traffic and transit access into downtown Seattle, especially during construction activities.
Thank you for your comment regarding new or additional direct bus service. It is outside of the scope of the Alaskan Way Viaduct Replacement Project to restructure the region’s transit service systems. However, as part of the ongoing transportation planning during construction, mitigation measures have been identified to maintain and improve transit service, speed, and reliability throughout the region. Since the project is located in downtown Seattle, these measures do focus on local and regional connections to the downtown core. Please refer Chapter 8 of the Final EIS and Appendix C, Transportation Discipline Report, for further details on mitigation measures related to transportation.

Decisions on this project are made by the lead agencies, not firms or interest groups who pay for advertising of any kind.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments. As a result of the comments received on the 2006 Supplemental Draft EIS, additional planning and analysis was conducted and presented in the 2010 Supplemental Draft EIS. Because the project has evolved since comments were submitted in 2006, please refer to this Final EIS for the current information on the alternatives and cost estimates.

The end of the Battery Street Tunnel, which does not have a view of the waterfront, includes improvements to Aurora Avenue, which is lowering Aurora and remove overpasses, and I wanted to know how much of that -- how much that was going to cost and what portion of the viaduct money itself would be directed to that end, I suppose how much cheaper would the viaduct project be if it were not included.

And I know the City wants to do that eventually, but I'm curious how much has been included in the viaduct project. And that's pretty much it, and I appreciate you taking the comment.
The 2004 Draft EIS evaluated one construction plan that considered brief closures of SR 99 during construction, but otherwise assumed that at least two lanes would be provided in each direction on SR 99 or an alternate detour route. In comments received on the 2004 Draft EIS, many people asked the lead agencies to consider more than one construction plan. Specifically, many people wanted to know if closing the corridor would reduce the amount of time it takes to build the project. To respond to this question, three different construction plans were developed (a shorter construction plan, an intermediate construction plan, and a longer construction plan) and evaluated in the 2006 Supplemental Draft EIS. Since 2006, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.

The City of Seattle's S. Spokane Street Project is under construction, and a new ramp connecting eastbound S. Spokane Street traffic to Fourth Avenue S. opened in August 2010. This will help divert some in-bound traffic off of First Avenue S. New westbound on- and off-ramps from First Avenue S. to S. Spokane Street are expected to open in Fall 2011. Widening of the S. Spokane Street Viaduct from E. Marginal Way to Sixth Avenue S. is expected to be completed around May 2012. Improvements south of S. Royal Brougham Way are not included in the scope of the Alaskan Way Viaduct Replacement Project.
The Alaskan Way Viaduct Replacement Project limits extend only to S. Royal Brougham Way. The interchange at SR 518 is not included in the scope of this project.

The Seattle Department of Transportation (SDOT) is widening the S. Spokane Street Viaduct from East Marginal Way to Sixth Avenue S., which is expected to be completed around May 2012. The project’s goals are to improve traffic safety and upgrade the structural and seismic performance of this roadway. A new ramp connecting eastbound S. Spokane Street traffic to Fourth Avenue S. opened in August 2010. New westbound on- and off-ramps from First Avenue S. to S. Spokane Street are expected to open in Fall 2011. SDOT has no plans to reopen the Fourth Avenue S. on-ramp to westbound S. Spokane Street, as the ramp no longer meets federal safety standards. Westbound traffic will need to exit at First Avenue S.

Midtown ramps will not be added to the Cut-and-Cover or Bored Tunnel Alternatives due to geometric limitations. Instead, access to SR 99 would be provided via a full interchange near Dearborn Street and S. Royal Brougham Way. From these new ramps, traffic destined for downtown would use the downtown street grid. Removing the Columbia and Seneca Street ramps under the Cut-and-Cover Tunnel Alternative and the preferred Bored Tunnel Alternative will help alleviate much of the congestion that is seen under existing conditions due to the redistribution of traffic accessing SR 99 to several east–west streets, rather than to a single street (i.e., Seneca or Columbia Streets).

Please see the Final EIS for the current configurations for all the proposed build alternatives.
downtown. Currently the tunnel drawing shows access only at the far north and far south ends of downtown, and this seems inadequate. This would force many drivers to drive through Pioneer Square and the north end of downtown, both of which are quite congested all the time and would add perhaps ten minutes to a person's commute during peak hours.
Thank you for your participation. We hope you have found the information in the Final EIS useful.

First of all, I want to thank you people for coming down here and trying to explain this because we as voters need to know what we're voting on, and until we can really see pictures in detail, there's no way we can get a halfway decent picture of this. So I appreciate the fact that all these people came down here and they're trying to help us out because it's not an easy solution at all.

No matter what we do, it will cost us money, and if we don't do anything, that's going to even be worse, so I just -- I'll be looking forward to many more meetings here and try to catch up with really what's involved here. So I want to thank everybody for all their good work. I'll be at many more meetings, so I'll probably have more comments later on, but until I understand, I have no way of knowing how to vote.

/Public comments concluded./
The views of Elliott Bay, Puget Sound, and the Olympic Mountains are prized by many. Views are currently enjoyed by motorists and passengers traveling on the upper deck of the existing viaduct. However, the views for motorists and pedestrians using downtown streets in the vicinity of the waterfront are interrupted by the existing viaduct structure. This structure is considered by some to be a substantial visual intrusion as well as a source of noise and shadow for the Pioneer Square Historic District and the Central Waterfront. Impacts to views are discussed in the Final EIS and considered in detail in Appendix D, Visual Quality Discipline Report.

Construction effects on the Ballard/Interbay, West Seattle, and Duwamish businesses and residents (due to their location outside the area of immediate impact) are not expected, with the exception of a decrease in freight mobility and increase in congestion/travel times for truck and vehicle traffic as they use alternative freight routes. The loss of freight mobility will have a resultant loss in productivity.

Effects to Downtown Seattle would be limited to those properties abutting the construction zone (east and west sides). The effects to the bulk of downtown Seattle will revolve primarily around the increase in congestion as traffic is displaced from the immediate corridor and is absorbed on the surface street network. The increase in congestion will have a resultant loss in productivity. These effects are discussed in the Appendix L, Economics Discipline Report, of the Final EIS as costs of congestion due to increase in travel times.

Access to essential public health services will be maintained throughout the viaduct construction. Users of these medical facilities may need to shift their mode of transportation from automobile to mass transit in order to reach medical facilities at the current level of service.
14 hours of delay on I-5. Many of the residents in
Ballard and Magnolia, due to the afflictions of
Swedish Hospital and the use of Swedish Hospital on
First Hill, with I-5 and other parts of downtown in
gridlock, the impact on these hospital visits could
be significant.

These indirect construction impacts are
unmitigatable. The increased greenhouse gases and
other pollutants from construction, gridlock,
detours, and the seven percent grade which will cause
congestible [sic] gridlock inside of the tunnel are
not adequately discussed for the tunnel alternative.
No reasonable alternative routes have been provided.
Idling traffic and gridlock will produce more
greenhouse gases than without these grades. These
impacts are unmitigatable.

Number five, the economic impacts of construction
delays. The EIS does not adequately discuss the
economic impact from the delays caused by the direct
or indirect construction impact of either
alternative. The job losses in Ballard, West
Seattle, Magnolia, downtown could be significant as
the raising of cost of finding employees could be
prohibitive. Cost of shipment increase, businesses
leaving the area without delays. These temporary and
Heavy vehicles constitute approximately 3 percent of the Average Daily Traffic (ADT) volume on SR 99 in the northbound direction. The traffic impact of the 7 percent grade would be mitigated because approximately 40 percent of the northbound trucks on SR 99 exit at Western Avenue and are in the outer lane, which is also a drop lane.

The right lane would act as a truck climbing lane for this percentage of trucks. The current on-ramp at Western (to northbound SR 99) would be restricted to emergency vehicle use only, removing many merge conflicts that exist today.

It is true that vehicles carrying flammable and/or combustible cargo would not be allowed to use the tunnel. They are not allowed in the Battery Street Tunnel today. These materials need to be transported along the surface streets, such as Alaskan Way. It is not the intention of this project to force West Seattle and Ballard businesses to close because of the inability to transport fuels and other petroleum products from Harbor Island to the Lake Washington Ship Canal; however, fire, life, and safety requirements for operating a tunnel structure would require additional transport time for petroleum product deliveries using the surface street network.

Both the Cut-and-Cover Tunnel and the preferred Bored Tunnel Alternatives are safe alternatives. Generally, structural engineers agree that tunnels are one of the safest places to be during an earthquake, because the tunnel moves with the earth. No Seattle tunnels were damaged during the 2001 Nisqually earthquake, including the Mt. Baker and Mercer Island I-90 tunnels, Battery Street Tunnel, Third Avenue Bus Tunnel, and Burlington Northern Tunnel.
The bored tunnel would be built to current seismic standards, which are considerably more stringent than what was in place when the viaduct was built in the early 1950s. The bored tunnel design includes improving relatively soft, liquefiable soils found near the south tunnel portal. Emergency exits would be provided every 650 feet in the tunnel. Project engineers have studied current data on global warming and possible sea level rise and concluded that the seawall provides enough room to protect the tunnel from rising sea levels. The engineers also considered the possible threat of tsunamis during the design process.

**H-050-006**

This comment requests a level of detail that is not required for the analysis of the build alternatives to comply with NEPA and SEPA. The design for the proposed build alternatives are not final and are still being refined. The final design of the selected alternative for this project, including grades, will comply with WSDOT and American Association of State Highway and Transportation Officials (AASHTO) roadway design standards.
Funding infrastructure maintenance and replacement, such as for this project, is a long-standing challenge for many jurisdictions and agencies such as WSDOT and the City of Seattle. Please note that the lead agencies have identified the Bored Tunnel Alternative as the preferred alternative for this project. If this alternative is selected, the replacement of the seawall would occur under a separate project, the Elliott Bay Seawall Project, led by the City of Seattle. See the Final EIS for current project information, including estimated cost for all of the proposed build alternatives.

First of all, they're using highway funds for urban renewal, which I think is illegal, because if they tear down the viaduct, they're planning on doing urban renewal, so that means highway funds are being inappropriately appropriated.

And secondly, for lack of foresight on part of Mayor Nickels and his predecessors, they haven't set aside money for the infrastructure of the City. It's not a very glamorous thing to put money aside for, but they have not maintained the seawall. Now they're asking for highway funds to repair and replace the seawall, and cleverly on their part, including it as the western wall of the tunnel so that what was city infrastructure is now becoming a state highway problem, and I think that again is illegal use of highway funds.

Another thing I'd like to add, that recently Boeing was involved, engaged in a contract to put I believe it was people on the moon, and interestingly, the budget that was allocated for it was $4.2 billion, and the City is asking for $4.2 billion dollars to build a highway that's less than two miles.
The purpose of the EIS public hearings is to provide information to the public and to solicit public comments such as this. The comments are part of the information considered by the federal, state, and local officials responsible for making decisions on the project.
H-051-003
Taxes are affected by many factors that this project cannot control. The project is working with the local businesses and residents to mitigate the impacts of construction as described in Appendices G (Land Use Discipline Report) and L (Economics Discipline Report) of the Final EIS. Neighborhoods are discussed in Appendix H, Social Discipline Report.

H-051-004
The lead agencies recognize that retrofitting highways, roadways, and bridges is often a viable option to counter earthquake threats. However, unlike other bridges and structures in the area, it isn’t practical to retrofit the viaduct by only strengthening one or two structural elements. Fundamentally, such fixes transfer the forces from one weak point in the structure to another, and the viaduct is weak in too many places. The concrete frames, columns, foundations, and even the soil under the structure don’t provide enough strength by today’s standards. The lead agencies have studied various retrofitting concepts, and all of these concepts fail to provide a cost-effective, long-term solution that adequately addresses the risks to public safety and the weakened state of the viaduct. The lead agencies also determined that retrofitting 20 percent of the viaduct as discussed for the Rebuild Alternative is not reasonable.
when, in fact, that's a vague statement that doesn't
mean anything.

And because of the way that the viaduct was
constructed, I don't think you can use examples of
San Francisco and other places where there's been a
collapse because this viaduct is built in sections
and it has turns in it, which makes it stronger.
There have been a number of engineers who have
studied it, and their opinion is that it's sturdy and
will withstand many more years.

So usually a study has the results of what it is
the people doing the study want to hear. For
example, a cigarette company, tobacco company
determining that cigarettes don't cause cancer is
what you feel like what's happening, all the
arguments about why the viaduct is about ready to
collapse.

There's only about three or four or five
sections, pillars of viaduct that need repair, and
that kind of repair is done on a number of other
bridges in the city, and it seems that you could
repair those sections for a fraction of the cost and
probably have a structure that you can rely on for
the next fifty years. And by that time, who knows
what kind of transportation issues we might have.
The lead agencies are committed to ensuring that the state, local, and federal public funds are spent effectively.

WSDOT developed a technique for cost estimating, called the Cost Estimate Validation Process, or CEVP, in 2002. This process is being used across the state and has proven itself much more accurate than previous methods.

The bored tunnel cost estimate is based on CEVP. This process uses outside experts to help establish a more comprehensive budget at the early stages of a project and identify risks that need to be actively managed. It takes into account project changes, mitigation, inflation and risk—something projects that experience cost overruns generally fail to do.

Independent experts and cost estimators experienced in tunnels, underground construction and megaproject delivery have reviewed the bored tunnel cost estimate. The viaduct replacement program also has a technical advisory team with more than 295 years of collective experience delivering projects around the world that provides guidance on risk management, construction methods, and oversight.
The multi-disciplinary project team is well aware of the many challenges you describe. These issues, including archaeological and cultural resources, geologic and soils conditions, etc., are discussed throughout the Final EIS. These issues are also factored into the project's design budget.
The preferred Bored Tunnel Alternative is a safe alternative. Generally, structural engineers agree that tunnels are one of the safest places to be during an earthquake, because the tunnel moves with the earth. No Seattle tunnels were damaged during the 2001 Nisqually earthquake, including the Mt. Baker and Mercer Island I-90 tunnels, Battery Street Tunnel, Third Avenue Bus Tunnel, and Burlington Northern Tunnel.

The bored tunnel would be built to current seismic standards, which are considerably more stringent than what was in place when the viaduct was built in the early 1950s. The bored tunnel design includes improving relatively soft, liquefiable soils found near the south tunnel portal. Emergency exits would be provided every 650 feet in the tunnel. Project engineers have studied current data on global warming and possible sea level rise and concluded that the seawall provides enough room to protect the tunnel from rising sea levels. The engineers also considered the possible threat of tsunamis during the design process.

Maintenance costs for alternatives have been calculated and are included in the overall cost estimates. The Bored Tunnel Alternative would have a stacked configuration with northbound and southbound traffic completely separated so head-on collisions would be unlikely. Please note that the deteriorating seawall would be replaced under the Alaskan Way Viaduct Replacement Project if the Cut-and-Cover Tunnel or Elevated Structure Alternative is selected. Replacing the seawall would be a separate project if the Bored Tunnel Alternative is selected, because the failing seawall does not have the potential to affect the seismic stability of this alignment. Please see Chapter 3 in the Final EIS for a description of the current configuration for each alternative in the project area.
The grades for the Cut-and-Cover Tunnel Alternative are approximately 7 percent in the northbound direction, both entering and exiting the central waterfront tunnel. In the southbound direction, the entering grade is approximately 7 percent, but the exiting grade is 6 percent. The grades shown are correct; however, the design for this alternative is still considered preliminary.

Please see the Final EIS text for updated information on the three build alternatives, including the Cut-and-Cover Alternative, which this comment refers to.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments.

All reasonable measures would be taken to make the tunnel as safe and secure as possible. The structure will be far more robust than the existing viaduct. Emergency exits would be located approximately every 650 feet and would be built to conform with the current Fire and Life Safety code. The City of Seattle also has an Emergency Management Plan to be put in place in the event of explosions, major accidents, or other potential major emergencies involving the tunnel.
An independent Evaluation of Gray's Retrofit Proposal (July 31, 2006) was prepared for WSDOT by TY LIN International. The evaluation found that the proposal makes some improvements but that the foundations of the viaduct would still remain vulnerable to earthquake damage.

 Completely closing SR 99 during construction is a concern for many people. FHWA, WSDOT, and the City of Seattle have carefully considered the trade-offs between the amount of time that construction would take and keeping SR 99 open to traffic. The Final EIS describes the current construction approach for each alternative.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Elevated Structure Alternative. Because the project has evolved since comments were submitted in 2006, please refer to the Final EIS for current information.

Construction of a new major north/south traffic corridor in the project area to accommodate construction traffic or future traffic increases has been determined not to be feasible. Construction impacts are described in Chapter 6 of the Final EIS. Traffic conditions on city streets and I-5 during construction are expected to be more difficult than what is being experienced today. Mitigation measures will be in place as described in Chapter 8 of the Final EIS.
FHWA, WSDOT, and the City of Seattle are moving forward to implement the project. Please see the response to comment H-053-003 concerning Gray's Retrofit Proposal. The alternatives studied in the Final EIS will maintain capacity to efficiently move people and goods to and through downtown Seattle.
design would do that more cost-effectively than any
other alternative put out by other parties.

(Public comments concluded.)
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the Bypass Tunnel Alternative. However, the Bypass Tunnel Alternative was not carried forward because the traffic analysis showed that it did not maintain mobility and accessibility.

I'm dissatisfied with both of the preferred alternatives. The six-lane cut-and-cover tunnel is too expensive and provides too much limited access capacity. And the six-lane replacement viaduct does the same. It has the additional flaws of being too big and too ugly and also continues to provide freeway ramp access to Seneca and Columbia Streets, which is harmful to our urban fabric in downtown Seattle.

I would like the City and State instead to consider an alternative that they rejected during the first phase. That is the bypass tunnel alternative, a four-lane cut-and-cover tunnel with two features added to it, so it would be a hybrid option, borrowing things from the preferred options. It should have ramps to and from Interbay at Western and Elliot Avenues and also should have dynamic tolling.

The southbound ramp at Elliot may require that that intersection be signalized so that when vehicles enter from southbound Elliot Avenue, the lanes coming...
WSDOT is evaluating tolling on SR 99 as discussed in Chapter 5 of the Final EIS.

out of the battery street tunnel may have to be stopped. But on East Marginal Way, further south on State Route 99, we have at least four signals in a six-lane profile, so we need not build the replacement to accommodate 70-mile-an-hour traffic through our downtown.

Dynamic tolling has the potential to more efficiently allocate lane space. It will provide an incentive to drivers to drive at off-peak periods when the demand is less, to shift their use to other times of the day when there is plenty of capacity.

Today the viaduct is actually rarely congested. Only it's access points are congested, the on-ramp at Elliot, the off-ramp at Western, and the ramps at Seneca and Columbia, but there is more than sufficient through capacity provided, and the two preferred alternatives actually increase that capacity by adding wider lanes and shoulders. You need not do that.

I suspect that the bypass tunnel would be affordable with the monies that we have on hand and that it has all the urban planning benefits of the six-lane tunnel without the fatal flaw of excessive cost.

I want to make one more remark about dynamic
Since the 2006 Supplemental Draft EIS, the Cut-and-Cover Tunnel and Elevated Structure Alternatives and the construction approach for each of the alternatives have been refined. One construction plan is analyzed for each of the alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure) in the Final EIS. Chapter 3 describes each alternative and its construction plan, and Chapter 6 describes construction effects.
Optimizing freeway ramp and express lane operations will be an important factor in how transit and general purpose traffic can navigate I-5 during major construction of the Alaskan Way Viaduct Replacement Project. Chapter 8 of the Final EIS and Appendix C, Transportation Discipline Report, list strategies that are being considered to help manage traffic during project construction. The lead agencies will continue to work with all local transit agencies to ensure that transit services can maintain reasonable levels of service quality on I-5 and provide a viable alternative to the single-occupant vehicle.
FHWA, WSDOT, and the City of Seattle appreciate receiving your comments on the tunnel alternatives.

The preferred Bored Tunnel Alternative is a safe alternative. Generally, structural engineers agree that tunnels are one of the safest places to be during an earthquake, because the tunnel moves with the earth. No Seattle tunnels were damaged during the 2001 Nisqually earthquake, including the Mt. Baker and Mercer Island I-90 tunnels, Battery Street Tunnel, Third Avenue Bus Tunnel, and Burlington Northern Tunnel.

The bored tunnel would be built to current seismic standards, which are considerably more stringent than what was in place when the viaduct was built in the early 1950s. The bored tunnel design includes improving relatively soft, liquefiable soils found near the south tunnel portal. Emergency exits would be provided every 650 feet in the tunnel. Project engineers have studied current data on global warming and possible sea level rise and concluded that the seawall provides enough room to protect the tunnel from rising sea levels. The engineers also considered the possible threat of tsunamis during the design process.

Traffic through Seattle will be difficult during construction no matter what alternative is chosen. Mitigation measures will be in place as described in Chapter 8 of the Final EIS.
diverting all 110,000 cars through downtown or onto I-5 effectively, so I think we need to have more mass transit in place before we even consider shutting down the viaduct temporarily, and I think that we should possibly shut the viaduct down for a week or so and see what happens.

(Public comments concluded.)