U.S. Department of Transportation
Federal Transit Administration

REGION X
Alaska, Idaho, Oregon, Washington

915 Second Avenue
Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

December 17, 2010

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Ms. Angela Freudenstein
Alaskan Way Viaduct Replacement Project
999 Third Ave., Suite 2424
Seattle, WA 98104

Re: Federal Transit Administration Comments on the Alaskan Way Viaduct Supplemental Draft EIS

Dear Ms. Freudenstein:

Thank you for the opportunity to comment on the Alaskan Way Viaduct Replacement Project 2010 Supplemental Draft Environmental Impact Statement. The Federal Transit Administration (FTA) recognizes that this project presents enormous complexity in every facet. Within that context, we respect the serious work that the AWV team has done and the significant commitment that the team has made to identify and minimize adverse effects.

F-004-001 While the purpose and need of this project is to provide a replacement transportation facility that will "provide capacity of automobiles, freight and transit to efficiently move people and goods to and through downtown Seattle," it is not apparent from the SDEIS that transit capacity will be effectively maintained through the proposed transit enhancements and mitigation. In particular, the impacts of traffic diversion from tolling on public transportation need further refinement in either a supplemental DEIS or the FEIS.

It is our hope the attached comments may help the team refine its analysis and improve the environmental documentation of the Project. We sincerely apologize for not being able to complete our review more promptly.

Sincerely,

R.F. Krochalis
Regional Administrator

cc: David Moseley, Washington State Ferries
Joni Earl, Sound Transit
Kevin Desmond, King County Metro
Paul Hahn, City of Seattle DOT

F-004-001

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 that 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 monitored regularly 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 also work with the County to identify funding sources for the service originally contemplated in the January 2009 agreement.

Chapter 5 of the Final EIS includes analyses for each of the alternatives both with and without tolls. How tolls might be implemented as part of the proposed action will be refined further should the state legislature authorize tolls. The potential effects resulting from analyses described in Chapter 5 of the Final EIS represent a conservative tolling analysis meaning that we anticipate expect effects will be notably less than described in the Final EIS.

FTA COMMENTS
Alaskan Way Viaduct Replacement Project
Supplemental Draft Environmental Impact Statement (November 2010)
December 14, 2010

FTA's concerns with the SDEIS relate primarily to how the document generally approaches the analyses of tolling and cumulative effects, and specific details concerning the analysis of transit.

Comments relating to the SDEIS's approach

F-004-002 Inadequate and confusing presentation of tolling impacts. Chapter 9 introduces tolling, presenting it as a design option, and shows it to be a factor that apparently could cause significant changes in the way any of the alternatives would operate: "For the Seattle Center City area, Vehicle Hours of Delay in 2015 is projected to increase between 3 percent and 20 percent when compared to untolled 2015 Bored Tunnel." (p. 208) "[M]odeling results show the diverted traffic on Second and Fourth Avenues would increase travel times by 4 to 8 minutes for traffic traveling in general-purpose lanes under Bored Tunnel Toll Scenarios A and C. . .." (p. 215) "Under all tolling conditions, vehicle trips would increase by up to a third at intersections in the project area." (p. 222). With consequences of that magnitude, FTA would not expect the SDEIS to isolate the tolling analysis in a separate chapter, but rather to include those impacts in Chapter 5 in the discussion of the likely environmental effects of the proposed action on all elements of the environment. Further, the chapter itself seems to downplay the environmental effects of tolling. Of Chapter 9's twenty pages, the non-transportation consequences do not receive any attention at all until page 16, and of the five pages discussing non-transportation impacts, three of them are devoted to environmental justice. Finally, separating the tolling discussion from the cumulative impacts analysis (Chapter 7) further obscures the likely real impacts of tolling and extent of extra mitigation that it will require. Even if tolling is for some reason not examined in Chapter 5, we certainly do not understand why the effects of tolling are not considered in Chapter 7.

F-004-003 The approach to tolling leaves many questions unanswered. If tolling is to be part of a financing plan, will another supplemental DEIS be prepared? Will there be any more significant analysis given to, for instance, the consequences to bus traffic or ferry access if tolling diverts an additional 16,000 vehicles per day on streets west of I-5 (p. 209)? When the SDEIS says, "These effects would not be not acceptable as part of a long-term tolling solution. Therefore other scenarios would be evaluated and reasonable optimization measures would be applied and analyzed before tolling would be implemented" (pp. 214, 215), in what context would that evaluation of other scenarios take place? FTA hopes that the FEIS can better illustrate what effects to the environment will be caused by tolling and whether they can be mitigated, as called for by NEPA, or that the project proponents agree to a future environmental document that will adequately analyze tolling effects.

F-004-004 Confusing presentation of cumulative effects. FTA found the detailed presentation of the cumulative effects "with the Program as compared to the Project," which comprised more than half of Chapter 7, to be confusing and to impair the assessment of overall cumulative effects – that is, the Project's effects

F-004-002

In response to comments, the Final EIS does not isolate the discussion of tolling in a separate chapter, as was done in the 2010 Supplemental Draft EIS. The effects of tolling are considered throughout the document and its appendices.

F-004-003

The analyses regarding how tolls might be implemented as part of the proposed action were preliminary for the 2010 Supplemental Draft EIS but have been updated for the Final EIS. They will be further refined during final design through a joint planning effort (described below) should the state legislature authorize tolls on the SR 99 Bored Tunnel. The analysis in the Final EIS represents a conservative estimate of the impacts of tolling the SR 99 Bored Tunnel. We anticipate that any effects due to applying tolls to the SR 99 Bored Tunnel will be notably less than those described in the Final EIS analysis.

Prior to a final decision about how the SR 99 Bored Tunnel would be tolled, the Washington State Department of Transportation will be working with the Seattle Department of Transportation and other agencies to refine and optimize how to toll the SR 99 tunnel while minimizing diversion of traffic to city streets and minimizing potential effects to transit, bicycle, and pedestrian travel. WSDOT, with cooperation from the City of Seattle, the Port of Seattle, and King County, will establish a Tolling Advisory Committee to provide strategies for minimizing diversion impacts. Chapter 8 of the Final EIS further discusses the role and objectives of the Tolling Advisory Committee.

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 of potential diversion. 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.

F-004-004 added to the effects of other reasonably foreseeable actions. In addition, we agree with EPA cumulative effects guidance that generally "the information presented [should be] commensurate with the impacts of the project, i.e., a greater degree of detail is needed for more potentially serious impacts."[1] Given the scale of the Project and the other reasonably foreseeable actions, and especially the likely scale and duration of the construction impacts, we expected less detail about other Program elements and more detail about overall effects.

Specific comments related to potential transit impacts

F-004-005 We appreciate the work that went into the transit analysis. It appears to be advanced quite a bit from the previous SDEIS (e.g., assessing impacts to transit travel times). However, in the broadest sense, FTA remains disappointed that the Project's impacts on public transportation are, from our perspective, adverse, even with mitigation. In the short term, "Daily ridership growth between 2005 and 2015 with the 2015 Project would generally be similar to or slightly lower than ridership growth in the 2015 Existing Viaduct, depending on the screenline" (Appendix C, p. 222). Looking slightly farther out, transit share would grow between 2015 and 2030 due to "expanded bus and rail service, particularly Link LRT service in place by 2030, [and] higher automobile operating costs and higher parking costs." Appendix C, p. 224. That is, transit share increases, but not because of the Project or its mitigation. Finally, with tolling in place, transit ridership actually decreases by 2030 (SDEIS, p. 215). The SDEIS ambiguously states that this decrease is both negligible and unacceptable (id.). FTA concurs that any project element that decreases transit ridership is not acceptable.

F-004-006 Long-term transit impacts. FTA is concerned that the SDEIS analysis does not adequately assess the long-term operational impacts on transit of the Bored Tunnel Alternative. For example, the document properly acknowledges that the removal of the Columbia/Seneca ramps will lead to longer transit trips from West Seattle because "vehicles would need to pass through more intersections,"[2] but concludes without elaboration that the level of delay "would not likely require added resources in terms of more buses on the affected routes" (p. 110). This statement appears not to recognize that the added delay for the specific West Seattle routes is merely indicative of similar added delays on scores of routes, and that the bus delays compound general purpose traffic delays. In addition, we were unable to determine from Appendix C whether the long-term traffic forecasting took into account that the Metro buses will eventually be using surface streets rather than the Downtown Seattle Transit Tunnel, when the DSTT is converted to an all-light-rail facility.

F-004-007 Post-construction mitigation. The SDEIS observes a number of times that the removal of the Columbia/Seneca and Elliott/Western ramps is a major difference between the Bored Tunnel alternative and the other alternatives. It notes that the ramp removal is the primary reason for increased VHD (Vehicle Hours of Delay) of 7 percent in the 2015 Bored Tunnel Alternative compared to the 2015 existing viaduct. As a result, "more traffic is expected to use city streets for a longer portion of their trip than they would using the existing viaduct" (p. 15). Yet Appendix C states, "Long-term (post-

[1] "Consideration Of Cumulative Impacts In EPA Review of NEPA Documents," U.S. Environmental Protection Agency, Office of Federal Activities (2252A) (EPA 315-R-99-002/May 1999) http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf

[2] The loss of the midtown ramps in the 2015 Project requires buses to travel through nine additional signalized intersections in the southbound direction and 17 additional signals in the northbound direction between the south portal on- and off-ramps and central downtown. Appendix C, p. 227.

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.

In advance of construction, WSDOT funded Intelligent Transportation System (ITS) investments that provide improved signal operations and travel time information on SR 99 and city streets such as 15th Avenue NW that were likely to see increased volumes due to SR 99 construction activities. These investments will have lasting value. Supplemental transit services and transportation demand management were also implemented with assistance from the City of Seattle and King County, and these strategies can form the blueprint for future strategies.

F-004-004

Comment noted. In the Final EIS, Chapter 7 discusses project cumulative effects. The cumulative effects analysis provided in Chapter 7 has less detail on the program elements than was provided in the 2010 Supplemental Draft EIS (although the details have been retained in Appendix C, Transportation Discipline Report) consistent with your comment. Chapter 7 contains more detail about overall project cumulative effects.

F-004-005

The discussion of transit conditions has been updated to in Chapter 5 of the Final EIS to reflect the modeled conditions for the year 2030. The Viaduct Closed (No Build Alternative) is expected to carry the fewest number of transit riders of any of the alternatives considered. Tolling any of the build alternatives is expected to change transit ridership by up to 1 percent compared to non-tolled conditions.

Chapter 7 of the Final EIS Appendix C, Transportation Discipline Report, also provides information on transit service and indicates the tolling

F-004-007 construction) transportation mitigation measures are not anticipated for the project." The ramp removals are certainly long-term and their impacts on travel time and transit service are long-term. Would not some of the transit improvements and enhancements that the Project will support include permanent elements? Would the Project exclude post-construction transportation mitigation measures even under a tolling scenario, which further degrades surface street conditions?

F-004-008 Tolling impacts. The SDEIS states that tolling could divert 40,000 to 45,000 vehicles per day on to city streets and I-5 from the Tunnel (p. 39). We believe that this is inclusive of the 30,000 or so vehicles otherwise diverted onto city streets due to access issues, but it is unclear. The same question arises as to the additional 7000 vehicles diverted onto Alaskan Way due to tolling (p. 39). In addition, is it even possible that I-5 will be able to absorb 15,000 more vehicles per day, as suggested on p. 39? "In the Center City area, I-5 experiences restricted movement or congestion throughout most of the day, from 6:00 a.m. to 7:00 p.m. in both directions" (Appendix C, p. 58). Adding several thousand peak-hour vehicles into the mix does not seem possible without further impacting transit service and reliability. And again, it raises the question of whether the Project does not intend to provide post-construction transportation mitigation measures, given impacts of this magnitude.

F-004-009 The SDEIS states that "Since transit routes are designed to serve trips to downtown, while the tunnel is designed to serve trips through downtown, the impact of tolls on transit is negligible" (p. 215). This is simplistic and inaccurate. First, much transit does indeed serve trips through downtown both by design and necessity, sometimes directly and sometimes through connections. Second, to the extent tolling affects the ability of transit to operate effectively – that is, if tolling affects access, reliability, or travel time – it obviously affects ridership. (The SDEIS correctly makes this connection in the Environmental Justice discussion when it observes that transit service would be affected by increased traffic on Second and Fourth Avenues.)

The SDEIS finds the impact of tolling on transit ridership to be "negligible" (p. 215). However, FTA believes the assessment of the effectiveness of priority treatments to be optimistic. More realistic is the depiction of dramatically increased travel times on Second and Fourth Avenues (Exh. 9-15). At a time when the downtown core will see a huge need to boost transit mode share, we agree that "such effects would not be acceptable as part of a long-term tolling solution" (p. 215). The Project should be ensuring that even the most conservative assumptions show increasing transit use and only minimally disrupted performance, even if getting to that point requires more mitigation funding than the Project has anticipated.

F-004-010 In addition, we were unable to determine from Appendix C whether the long-term traffic forecasting took into account that the Metro buses will eventually be using surface streets rather than the Downtown Seattle Transit Tunnel, when the DSTT is converted to an all-light-rail facility. FTA believes this would further degrade the modeled conditions.

F-004-011 North Portal transit-only lanes. FTA appreciates the inclusion of transit-only ramps at both portals. Perhaps the FEIS could include a clearer diagram showing the configuration and operations of the transit-only lanes at the North Portal.

F-004-012 Stadium area connections. Good connections between the Stadium ramps and the transit spines are vital if transit is going to continue to offer reliable service. Has King County Metro validated the assumptions

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scenarios would not have major effects on transit travel times or transit mode shares at selected screenlines. Transit demand and travel mode shares would generally be the same under both the non-tolled and tolled conditions.

F-004-006

The travel forecasting analysis for 2030 conditions assumed that the Downtown Seattle Transit Tunnel would be used exclusively by Sound Transit LRT vehicles. Under the Viaduct Closed (No Build Alternative) severe back-ups are expected to form at the transition points along SR 99 in the south and north, affecting transit speed and reliabitly. The lack of throughput through the central business district would result in substantially more traffic and resulting delays, for general purpose and transit vehicles.

The Final EIS identifies similar travel times across all three build alternatives for transit routes on Elliott Avenue, Aurora Avenue, and Second and Fourth Avenues. Transit times from West Seattle to downtown are expected to be slightly higher under the Bored Tunnel compared with the Cut-and-Cover Tunnel and higher than Elevated Structure. Although the Bored Tunnel Alternative would increase travel time for transit traffic destined to the central business district, buses would be able to access locations in the south area more directly.

F-004-007

The mitigation program to address construction-related impacts would include transit speed and reliability improvements. These improvements will be permanent and would help mitigate transit-related impacts after project completion. An example of such an improvement is upgrading traffic signals to support transit and traffic flow. In addition, WSDOT is seeking an acceptable long-term solution to minimize the amount of diverted traffic anticipated to result from tolling the facility. Please see

F-004-012 regarding the effectiveness of these connections? More generally, has Metro validated the effectiveness of each of the transit priority measures used in the project's modeling?

F-004-013 Cumulative impacts. FTA finds the discussion of cumulative impacts due to the Central Waterfront Project, Elliott Bay Seawall Project, and Alaskan Way Surface Street Improvements (p. 170) extremely optimistic. It finds the discussion of cumulative impacts due to additional, "non-Program" projects (p. 170-175) perhaps even more optimistic. And as suggested above, the effects of tolling should be folded into the cumulative effects analysis.

F-004-014 Public review of detailed mitigation plan. Given the length of the construction period and the intensity of construction-related impacts, FTA would have preferred to see a detailed mitigation plan released concurrent with the SDEIS. It obviously complicates any attempt to assess the adequacy of the measures. It also obscures the likely or potential costs of mitigation, and consequently the likelihood of actually implementing the identified mitigation. We understand that strategies are being currently being devised and that detailed plans will be included in the FEIS, and we look forward to seeing them. FTA recommends that the Record of Decision (ROD) respond to comments on the mitigation measures presented in the FEIS. Please see below for additional comments related to construction mitigation.

F-004-015 Construction impacts to transit. The brief discussion of how construction would impact transit (p. 140) seems cursory. Increased traffic on First and Fourth Avenues would definitely affect transit operations; the restrictions around the north portal would affect transit operations; congestion around staging sites would affect transit operations; congestion around Colman Dock would ripple outward and affect transit operations; and whenever lane reductions on SR 99 causes increased congestion on alternate routes (as described in the freight section), that would likely affect transit.

F-004-016 South Holgate improvements. Appendix C states, "Transit enhancements and improvements to the street system will play a major role in keeping people and goods moving during construction of the S. Holgate Street to S. King Street Viaduct Replacement Project, starting in 2010. These improvements will remain useful to travelers during construction of the Bored Tunnel Alternative." (p. 308) FTA believes that the transit enhancements related to the South Holgate project are unfunded as of 2014. Do the project proponents intend to fund their continuation through Project construction?

F-004-017 Cost of mitigation measures. Will the project proponents will pay for whatever mitigation measures are adopted? Or are the measures in the SDEIS available for consideration but contingent upon funding? The document is confusing on this point. For example, the SDEIS states, "A variety of transit enhancements would be provided to support planned transportation improvements associated with the Alaskan Way Viaduct and Seawall Replacement Program" (p. 7). It goes on to list the Delridge Rapid Ride and increased South Lake Union peak-hour service, neither of which, to our knowledge, is yet funded. Similarly, on p. 3, most readers would incorrectly infer that the 2009 agreement to proceed with a tunnel includes funding for a First Avenue Streetcar. FTA's understanding is that the transit enhancements agreed to by Governor Gregoire, County Executive Sims, and Mayor Nickels assumed revenue from an excise tax that has not been secured, leaving in doubt the status of these and other transit enhancements/mitigation. Again, on page 163, the SDEIS refers to transit enhancements being "phased in . . . well before 2030." Are these the enhancements that currently lack funding?

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Chapter 8 of the Final EIS for discussion of the transportation mitigation proposed for this project.

F-004-008

A detailed tolling analysis has been conducted for all alternatives, so there are updated estimates for the number of vehicles diverted per day. These estimates are presented in Chapter 7 of the Final EIS Appendix C, Transportation Discipline Report. Substantial volumes of general-purpose traffic are expected to divert as a result of tolling. However, the availability of bus-only lane on new Aurora Avenue surface street, under the Bored Tunnel Alternative, and the bus-only exit lane on SR 99 between S. Holgate Street and S. Royal Brougham Way, would help reduce the added transit travel associated with tolled conditions. Additionally, with the availability of bus-only lanes on Second and Fourth Avenue, under all alternatives, travel time variations for transit between tolled and non-tolled conditions would not be substantial.

Chapter 5 of the Final EIS summarizes the permanent transportation effects, while Appendix C contains the detail of the analysis. WSDOT and partner agencies have or will implement several strategies that should reduce the effects of potential diversion. 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 of Seattle's Complete Street goals and includes treatments for pedestrians, bicycles, freight, and adjacent land uses.

In advance of construction, WSDOT funded Intelligent Transportation System (ITS) investments that provide improved signal operations and travel time information on SR 99 and city streets such as 15th Avenue NW that were likely to see increased volumes due to SR 99 construction activities. These investments will have lasting value. Supplemental

F-004-018 Construction haul routes. Construction haul routes need definition in the FEIS. The removal of some 1.5 million cubic yards of spoils (pp. 134-45) could itself contribute noticeably to congestion. Disposal sites may become an issue and require the use of different routes if AWV construction overlaps with Sound Transit (North Link), SR 520, I-405 and I-5 work. Are barge and rail hauling possible?

F-004-019 Additional buses as mitigation. FTA recommends that the final Construction Transportation Management Plan include a procurement plan for purchasing buses, identifying the numbers, types, sizes, fuel sources, vendor, and needed-by dates (bearing in mind that multi-year lead times may be required). In addition, FTA notes that local transit agencies presently have a very limited amount of extra maintenance capacity. Depending on the number of buses required as mitigation, additional maintenance facilities may be required and should be analyzed in the FEIS.

F-004-020 Remote parking for construction workers. Requiring transit and/or remote parking (possibly with shuttle buses) for construction workers 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.

F-004-021 Prioritization of mitigation strategies. FTA recommends that the mitigation measures identified in the FEIS, be prioritized, at least those related to transit. The priorities might be different for different areas of the city, and for different phases of construction. This would be particularly helpful if, as it appears, funding has not been identified for many of the transit-related measures.

F-004-022 Other mitigation concerns that FTA hopes to see clearly addressed in the mitigation plan include safe pedestrian access to Colman Dock when the Marion Street pedestrian crossing is removed (without further hindering vehicular access to ferries); vehicular access to and from Colman Dock for Washington State Ferries; maximizing the utility of the Rapid Ride buses and other buses when SR 99 is restricted and/or subject to detours (i.e., "during the first 4.5 years of construction" (p. 29); funding for the transit-related mitigation measures, as noted above; a plan to provide adequate transit service during Stadium events on weekdays (at about South King Street, the 2015 Bored Tunnel is expected to shift about 29,000 daily trips from SR 99 to city streets (p. 19)). Some of these are elaborated upon below.

F-004-023 Colman Dock intersection analysis. The SDEIS concludes that with the Bored Tunnel Alternative, Colman Dock traffic operations (at Alaskan Way's intersections with Yesler and Marion) will be "comparable" to current conditions (p.110). However, "LOS and delay at these locations may be somewhat understated" because "the traffic models used to assess intersection conditions for this EIS do not specifically model the back-and-forth preemption cycles, and instead reflect an estimated 'average' condition during the peak hour" (Appendix C, p. 119). How understated? Any understatement could be significant given that the facility serves nearly 2.7 million vehicles and 8.5 million riders each year, not to mention the anticipated addition of 28,000 cars/day displaced to surface streets in the vicinity – perhaps, with tolling, considerably more than 28,000 – and a notable amount of freight traffic (the new Alaskan Way will be a regional truck route for freight (SDEIS, p. 7)). We note that WSF must get vehicles off the

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transit services and transportation demand management were also implemented with assistance from the City of Seattle and King County, and these strategies can form the blueprint for future strategies.

F-004-009

A detailed tolling analysis has been conducted 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, including impacts to transit and transit travel times. Transit travel times on Second Avenue and Fourth Avenues would benefit from bus-only lanes, as well as limited skip-stop access to bus zones along each avenue. Therefore, estimated added travel time under tolling scenarios would likely be less for buses than for general-purpose travel.

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 of potential diversion. 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 of Seattle's Complete Street goals and includes treatments for pedestrians, bicycles, freight, and adjacent land uses.

The tolling analysis discussed in Appendix C of the Final EIS shows the relative variability of each build alternative in terms of tolling, as measured by the standard transportation metrics in the project area. Given the different physical configurations for the alternatives (i.e., whether or not midtown ramps or Elliott/Western ramps would be provided), the appropriate tolling scenario for each of the build alternatives would likely be different. In order to provide some level of consistency between the environmental analyses for the three alternatives, one fairly conservative tolling scenario was used as the

F-004-023 dock promptly so it can fill up the holding lanes and set sail again.[3] If traffic does not flow, WSF sailing schedules will be impacted due to the backup of vehicles attempting to depart from the dock.

F-004-024 Colman Dock connectivity. In addition to Washington State Ferries, King County Ferry District operates two other passenger-only routes, one at Colman Dock and the other at pier 50. Have both ferry operators validated the SDEIS's conclusion that the Project will improve passenger connectivity to Colman Dock? Will King County Metro be able to provide adequate connections for the additional passenger-only ferry traffic that one can expect in light of congested downtown streets? FTA suggests that the Project consider mitigation in the form of additional transit connections to help move these walk-ons (from WSF as well as the King County ferries). Will the mitigation measures that will be proposed in the FEIS be validated by WSF as to their ability to assure safe and efficient operations during construction? Also, the Colman Dock analysis mentions in passing that the Marion Street pedestrian bridge will be removed as part of AWV demolition (p. 141). While unavoidable, this is more than a minor inconvenience for thousands of people; further, combined with already serious pedestrian-auto conflicts on Alaskan Way (Appendix C, p. 119-20), both safety and efficiency require an expedited replacement for this overpass.

F-004-025 Ferry queuing on Alaskan Way. During peak hours, WSF must "store" about 200 cars on Alaskan Way (between Yesler and Royal Brougham) because the dock lacks room for these vehicles when boats are discharging. With a reconfiguration as part of the proposed project, the dock may be able to absorb at most 100 of these cars. The SDEIS states at page 110 that this situation "may" affect northbound through traffic on Alaskan Way. Indeed, even without adding thousands of vehicles per day to Alaskan Way due to tunnel displacement (and tens of thousands more (compared to current conditions) in the general vicinity), this would unquestionably affect northbound through traffic. Will the Final EIS assess the severity of this impact and attempt to mitigate it? The SDEIS mentions briefly that Alaskan Way between S. Jackson and S. King Streets will serve as a staging area for "soil improvements." Does that worsen the ferry queuing problem?

F-004-026 Ripple effects from Colman Dock. The SDEIS provides a good qualitative summary of how construction will temporarily interfere with how passengers can access Colman Dock (p. 30). Given the number of vehicles using Colman Dock each day, we are concerned that the SDEIS has not looked at how these consequences themselves ripple out to further undermine transit service – for instance, when vehicles "exiting the Ferry Terminal would also need to connect to First Avenue S. or other north-south streets north of S. King Street to travel southbound," does the traffic model include those effects on the affected intersections' LOS? Travel times? Transit times?

F-004-027 Vanpools for ferry riders. Additional ferry-landing-based vanpools and ride-sharing have in the past been proposed as likely mitigation during construction. FTA encourages the project proponents to work with WSF to explore the feasibility of this measure.

F-004-028 Format. Finally, FTA appreciates the improvements to the format since the 2006 environmental document. The inclusion of the CD-ROMS with the Supplement was helpful. Still, the SDEIS remains difficult to review from an agency's perspective. The approach is "reader-friendly" but conclusory, so that the reviewer must frequently turn to the technical appendices for assumptions, data and analysis that

[3] When both Bainbridge and Bremerton boats are unloading at once, which occurs about 10 times each day, about 350 vehicles are exiting the dock.

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basis for all the tolling analyses presented in this chapter (Toll Scenario C from the *Updated Cost and Tolling Summary Report* to the Washington State Legislature, 2010).

F-004-010

The model assumptions are stated in Section 2.3.1 of the Final EIS Appendix C, Transportation Discipline Report. Metro buses currently operating in the Downtown Seattle Transit Tunnel are assumed to operate on surface streets upon completion of University Link.

F-004-011

The Final EIS includes an expanded description of the transit facilities and operations in the north area, but it does not provide a detailed exhibit depicting them. Please refer to the Final EIS Appendix C, Transportation Discipline Report.

F-004-012

King County Metro staff and representatives of the City of Seattle provided input on various transit priority treatments. These included transit speed and reliability improvements in the south area to address construction-related impacts, as well as bus-only lanes in the north area.

F-004-013

The cumulative effects analysis in Chapter 7 of this Final EIS has been revised and now includes tolling. The analysis for impacts due to the Central Waterfront Project, Elliott Bay Seawall Project, and Alaskan Way Surface Street Improvements and non-Program elements reflects information provided by the agencies leading these projects.

F-004-014

This Final EIS provides current information on construction impacts and mitigation. These are described by subject and will be carried forward as

F-004-028 support these conclusions. Further, due to the question-and-answer format, it is often hard to find answers if the reviewer has a question that was not asked in the document. And the amount of material is enormous (exemplified by a 500-page technical appendix on transportation). Most members of the public will likely find such a vast sea of material overwhelming. We understand that agencies, decision makers, and the public clamor simultaneously for more information on specific topics but less information overall, but feel compelled to comment. We hope WSDOT can continue to work towards "right-sizing" its environmental documents.

Thank you for considering our comments.

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appropriate into the Record of Decision (ROD) as either measures to minimize harm or commitments. Per FHWA's NEPA requirements, the ROD will respond to any comments received on the Final EIS.

F-004-015

Project construction will affect transit, and the extent of the effects will vary with each build alternative and traffic stage during construction. Chapter 6 of the Final EIS summarizes the construction effects to transit for each build alternative. Appendix C, Transportation Discipline Report, contains all the detailed information.

F-004-016

Transit enhancements were part of the package of Moving Forward Projects identified by WSDOT and King County in 2008. These enhancements included both capital improvements and additional service hours to help manage the impacts of all the Moving Forward Projects, not just the S. Holgate Street to S. King Street Viaduct Replacement Project. The capital improvements have been completed. Currently, WSDOT is providing funding to 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, but funding for this transit enhancement has not been secured yet for the duration of construction for the Alaskan Way Viaduct Replacement Project. However, WSDOT is working closely with King County to implement the additional service hours in the most effective manner. Since this is an ongoing program with potential flexibility in the timing of the service hour implementation and funding, the end date is also potentially flexible while still fitting within the agreed funding limit.

F-004-017

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 that the funding anticipated in the agreement has not been realized yet, 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 also work with the County to identify funding sources for the service originally contemplated in the January 2009 agreement.

F-004-018

The discussion of construction haul routes has been updated in Chapter 6 of the Final EIS. The project is planning to barge clean spoils and is unlikely to use the BNSF tracks to haul most of the spoils. Materials from the north portal area and those requiring special handling will likely move by truck. The number of trips is expected to be small in proportion to normal traffic volumes and is not anticipated to have a noticeable effect.

F-004-019

In cooperation with WSDOT, King County Metro has prepared a procurement plan associated with construction mitigation. The added buses would be supported by the construction mitigation program. No additional bus operations and maintenance capacity would be necessary to support the added vehicles.

F-004-020

The transportation planning process for construction encourages construction workers to use alternatives to single-occupant vehicles to access the job site, so that their potential contribution to traffic congestion is minimized 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.

F-004-021

The Bored Tunnel includes several design features, such as peak hour transit only lanes, that will benefit transit service. These are described in Chapter 3 of this Final EIS as integral parts of the project. Potential 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 because they are all being considered equally at this time. These strategies will be refined and considered further during final design.

F-004-022

Pedestrian access to the ferry dock will be maintained throughout construction and demolition activities. A discussion of the mitigation plans for the project is provided in Chapter 6 of the Transportation Discipline Report (Appendix C, Final EIS) and Chapter 8 (Mitigation) of

the Final EIS. The mitigation elements 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.

F-004-023

Level of Service (LOS) calculations using Highway Capacity Manual procedures do not include methodologies to directly assess the intermittent nature of traffic flow and changing signal parameters that occur at Colman Dock. As such, two conditions were modeled independently (conditions while ferries unload, and conditions while they do not), and an average LOS was calculated.

Subsequent to the 2010 Supplemental Draft EIS analysis, the project team developed traffic simulation models that are capable of specifically assessing the unique traffic operations at Colman Dock, including the effects of transitions between the various traffic flows and signal system states. Working in consultation with Washington State Ferries, this analysis demonstrated that traffic operation schemes could accommodate the forecasted traffic flows from Colman Dock in conjunction with traffic volumes expected on Alaskan Way. It should be noted, however, that traffic operating conditions at Colman Dock are highly dependent on how the traffic signal system is operated, the final design of the surface street and how Washington State Ferries operates the dock.

F-004-024

Representatives from King County Metro Transit and Washington State Ferries participated in the review of access at ferry terminals. While additional passenger ferries would result in higher passenger demand, access would involve a variety of modes including walking and public transit. Transit-related demand would not likely require added bus capacity. As part of the Central Waterfront planning process being led by the City of Seattle, transit service will be reviewed, including access to

Colman Dock and Pier 50. The existing Marion Street pedestrian bridge from First Avenue to the Seattle Ferry Terminal would be demolished and replaced as part of all build alternatives.

F-004-025

The Final EIS Appendix C, Transportation Discipline Report, included ferry queuing in the evaluation of transportation impacts on Alaskan Way due to operations at Colman Dock. 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.

F-004-026

Chapter 6 of Final EIS Appendix C, Transportation Discipline Report, details major construction activities and their associated transportation effects. The construction stage that most disrupts transportation (i.e. substantial sustained effects) was evaluated for each of the three build alternatives. This analysis included intersection LOS, travel times and impacts to transit. The effects of Colman Dock traffic was included in the modeling of construction traffic impacts for all build alternatives. Please see Appendix C for updated transportation analysis.

F-004-027

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 Program. The plan includes information about travel alternatives and incentives to encourage use of transit, carpool, and vanpool programs.

In addition, preparation of a traffic management plan, to be accepted by the City of Seattle, will be required to ensure that construction effects on local streets, property owners, and businesses are minimized. The traffic management plan will include procedures to identify and incorporate the

needs of ferry traffic in the project area.

Please see the Final EIS and Appendix C (Transportation Discipline Report) for more information.

F-004-028

We acknowledge that the 2010 Supplemental Draft EIS contains a great deal of information, which is why it relies on the included technical appendices for supporting information. This approach is consistent with CEQ regulations and guidance (see "Forty Most Asked Questions Concerning CEQ's NEPA Regulations," No. 25a). We have provided direction in sidebars to show readers where additional information can be found. We also provide a technical index (pages 256-257) that helps readers find where specific subjects are addressed. Overall, we agree with your observation that readers of all types make contradictory demands for both more and less information. We may never achieve a perfectly sized document for all individual stakeholders, but we believe that striving for that goal is a worthy effort that will bring many benefits.