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Re Alaskan Way Viaduct and Seawall Replacement Project DEIS.

The WSDOT has produced a major document for the DEIS. A three volume summary with about 450 pages in the 11 by 17 format backed up by 23 appendices in the 8.5 by 11 format with more than 2400 pages of data. Just taking the time to review all of the data requires a major effort not to mention trying to develop some constructive comments.

The DOT is well aware we have followed closely the project in its development over the last 3 years. We have suggested some alternates that might be considered. However the five selected alternatives ignores our views and are presented as the last word and the only possible solution for the entire project. This is in spite of the fact that the financing, 2.5 to 4.1 billion, to support any of the alternatives simply is not available and the time table proposed is unrealistic.

In our concern about costs we have suggested that the seawall work could be done independent of the viaduct. The soils below the viaduct can be stabilized independent of the wall. We also note that the work scheduled for north of the Battery Street Tunnel could be deferred and done independently as the safety of the viaduct is not involved. The viaduct single level structure north of Pine Street could be retrofitted and strengthened as noted in the rebuild alternative. That leaves the two level structure south of Pine street to be upgraded or replaced.

We proposed a system to provide for base isolation together with seismic dampers to protect the two level structure against a earthquake. That proposal was considered and dismissed by the DOT. Still there are other options available that should be investigated with the same zeal as those of the five alternatives. Specifically we suggest that the viaduct can be braced to meet the new more rigorous earthquake standards. Together with ground improvement the new braced frames can provide the necessary lateral strengthening while the existing structure can support the vertical loads even with some damage as now exists. It should be noted that during the 2001 earthquake only about one block or 2 three span viaduct units out of 64 were damaged. Our proposed braced frame alternate can be done while keeping the viaduct in service. We call this a repair alternative/strengthen proposal.

Some observations of the five proposed alternatives are in order. In all of the alternates it is assumed that the money will be there at the time it is needed. Given the status of the funding at this time and the vulnerability of the viaduct structure time is not on the side of just waiting until something happens. Further all of the alternates involve a loss in traffic capacity over a period of years during construction. Appendix "C" Transportation Discipline Report, cites a loss of 51% up to 82% during the most disruptive stage. Even those figures may be low considering the assumptions made. See appendix "C" page 267. If anything the loss in capacity will be greater than estimated.

Considering the loss of capacity, even using the average of about 25% (varies with each alternate as per table 6.7 appendix "C") that translates into some 28000 trips per day that will be diverted from the viaduct corridor to I 5 and other remaining streets. Just where the traffic will go and how much delay and cost to the motorist needs to be quantified when considering alternates. Also the

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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 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.

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ferry system will be disrupted thru out each day with all of the alternates. Again that will cause more delays and costs to all of the users of the ferries. Some 45 scheduled landings and 45 departures occur during a typical weekday. This involves some 7700 vehicles. Those delay costs should also be quantified.

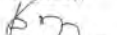
All of the proposed alternatives will have a severe impact on the businesses that now exist on the waterfront. Somehow the DEIS assumes that they will survive during the extended period or years of construction. How the public will access those facilities as well find a place to park not to mention how normal deliveries can be made. The DEIS is inadequate with respect to the waterfront activities as well as maintaining truck traffic and emergencies services thru the corridor.

Recommendations:

1. Break the project down into separate units for cost control. Delete the work north of the BST tunnel. Separate the seawall work.
2. Do a study of the repair strengthened braced frame with viscous dampers as an alternate for the two level structure. Note that this would be a minor cost and involve a short period of time and would allow a construction cost estimate to be made. The study should be performed by an independent engineering firm with a given directive to find a solution to repair the viaduct.
3. Strengthen the single level structure north of Pine Street.
4. Do a survey of the costs to the public of the loss of capacity for each of the alternates. This should include the travel time costs and any off corridor projects that would be necessary.
5. In the overall assessment of the project include the capacity lost cost with the construction costs for each alternative.

After all is said and done, with the 5 now proposed alternatives, the public will be forced to find ways to work around the congestion on Alaskan Way. And as noted in the report this will go on for some years. Who knows, the public may just manage to survive with out the need of a project costs in billions.

Sincerely,


Victor O. Gray.

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.