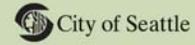
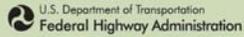


## Alaskan Way Viaduct & Seawall Replacement Program



## SR 99 – Alaskan Way Viaduct and Seawall Replacement Program

Seattle, Washington

Agreement XL3648

Corridor Hearing Comments and Responses

April 2010

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**From:** David L. Stone [timbre710@hotmail.com]  
**Sent:** Thursday, April 15, 2010 9:30 AM  
**To:** Alaskan Way Viaduct  
**Subject:** SR 99 proposal

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Since I am unable to attend any of the three public hearings scheduled, I am taking this opportunity to voice several objections to the planned "deep bore" proposal for SR 99 along the Seattle waterfront.

Objection 1 - The proposal, as it now stands, would not offer a viable route to the communities of Magnolia, Interbay or Ballard as does the present viaduct. Having to detour through downtown Seattle's surface streets would result in a waste of both time and money for the thousands of us who reside in the aforementioned communities. A waste of time having to cope with traffic and a waste of money having to consume more fuel while doing so.

Objection 2 - Should the proposal move forward, all taxpayers in the city would face the very distinct reality of having to pay for cost overruns. Those who are retired and exist on fixed incomes canNOT afford such a "luxury."

Please... re-think the entire concept and come up with a way to better facilitate the flow of traffic.

David Stone  
3642 33rd Avenue West  
Seattle, WA 98199

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The New Busy is not the too busy. Combine all your e-mail accounts with Hotmail. [Get busy.](#)

## Stone Response

Mr. Stone,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

When other elements of the Alaskan Way Viaduct and Seawall Replacement Program are completed in addition to using the bored tunnel, travelers heading to northwest Seattle would be able to use a new four-lane Alaskan Way that crosses over the railroad tracks and connects to Elliott and Western avenues. You would be able to access this roadway directly from SR 99 near S. Royal Brougham Way. Traffic signals along the waterfront would be operated to ensure through trips move efficiently. Another option is provided by a northbound off-ramp and southbound on-ramp at Republican Street. New crossings over SR 99 would be provided at Harrison, Thomas and John Streets to facilitate east-west traffic in the Seattle Center, South Lake Union and Uptown neighborhoods.

We have conducted traffic modeling of the proposed bored tunnel with and without new Alaskan Way to determine how they would affect travelers in northwest Seattle. Preliminary results indicate that travel times for trips between 15th Avenue W. and through the tunnel would be generally within one to two minutes of the same trip if the viaduct were still in place. The same is true for trips between 15th Avenue W. and S. Spokane Street using the waterfront. Southbound trips during the evening peak period are estimated to take a few minutes longer.

As you are aware, the State Legislature passed a bill for the proposed bored tunnel that says Seattle area taxpayers that benefit from the tunnel are required to pay for any cost overruns. We can't speculate on how this provision will be interpreted, but we do know that the Legislature endorsed the bored tunnel as the replacement for the viaduct and provided the budget authority necessary to support the construction schedule. We are focused on advancing the design of the bored tunnel on a very aggressive schedule, given the vulnerability of the existing viaduct.

To address the risk of possible cost overruns, we recently concluded an extensive six-month assessment to identify the probable cost for the proposed bored tunnel. This process, based on more advanced engineering plans for the tunnel and aided by the involvement of highly-qualified independent subject-matter experts, helped us identify key cost and risk drivers that could lead to cost increases. Once we better understood the risks, we took steps to manage or reduce them through value engineering and design changes. As the tunnel design advances, we will continue to indentify and address additional risks.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator

Stone Response

Alaskan Way Viaduct and Seawall Replacement Program

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**From:** Will Affleck-Asch [willaffleck@yahoo.com]  
**Sent:** Thursday, April 15, 2010 9:29 PM  
**To:** Alaskan Way Viaduct  
**Subject:** DEIS for Viaduct Replacement

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

My major concern is that, of the three alternatives presented to the public, the chosen primary alternative - the Tunnel Option - has the highest negative impacts on both global warming emissions and particulate emissions of all the possible options.

Given that our county and the adjacent counties are all - today - in violation of the proposed 2012 EPA standards for both measures, this seems foolhardy at best, and irresponsible under any viewpoint.

Sincerely,

Will Affleck-Asch  
3648 Francis Ave N, #B  
Seattle WA 98103-932

Affleck-Asch response

Mr. Affleck-Asch,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

The environmental effects of the proposed bored tunnel are being analyzed in a second Supplemental Draft Environmental Impact Statement (SDEIS) for the project. You will have a chance to review and comment on this document when it is released this fall. The SDEIS will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** Ellen Sollod [ellen@sollodstudio.com]  
**Sent:** Thursday, April 22, 2010 3:19 PM  
**To:** Alaskan Way Viaduct  
**Subject:** Tunnel portal plans and impact

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

I am very concerned about the impact of the tunnel entrance on the character of Pioneer Square as well as the potential vulnerability of the historic fabric of this very important part of our city. I feel the potential 13 lanes of traffic between the stadium and the waterfront is damaging both physically and psychologically to the movement the large amount of pedestrians who access these facilities. Further, as a business owner south of the Pioneer Square portal, I am concerned about the routing of possibly 59,000 vehicles coming through the square each day. The state must mitigate this tunnel portal in a more effective way, providing fewer traffic lanes. Given the fact that the tunnel itself has only two lanes in each direction, it is hard to understand how this huge funnel of traffic will not be backed up through SODO.

I am also concerned that the portal at the north end be looked at as an opportunity to knit the street grid back together rather than further divide it. There needs to be a full intersection at 6th and Mercer and the other streets must also be given attention.

Finally, there was an earlier commitment to provide funding for bicycle access and improved transit service, neither of which appear to be in the current proposal. It is essential the state maintain its commitments in these crucial areas.

Ellen Sollod

Sollod Studio LLC

1941 First Avenue South #3G, Seattle, Wa 98134  
voice: 206.405.4155  
web: [www.sollodstudio.com](http://www.sollodstudio.com)

Sollod response

Ms. Sollod,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

We have worked very closely with the Pioneer Square Historical District to determine ways to maintain the character of the neighborhood when we replace the central waterfront section of the Alaskan Way Viaduct. Many of the lanes south of Pioneer Square associated with the proposed bored tunnel would be to accommodate ways to enter or exit SR 99. Because the next available exit off of SR 99 would be at Republican Avenue in the South Lake Union neighborhood, we expect an increase in the number of vehicles that would move north into downtown using surface streets through SODO, Pioneer Square and the waterfront. Drivers would have the option to take several city streets including Fourth Avenue, First Avenue and a new Alaskan Way. The preliminary design for the new Alaskan Way includes improvements to handle the increase in traffic. As part of the viaduct replacement program, King County is also seeking new funding sources for expanded transit service to downtown.

New connections that are part of the proposed bored tunnel would improve the street grid at either end of the tunnel. At the northern end, John, Thomas and Harrison streets would be reconnected across Aurora Avenue. We are also studying two options for reconnecting Sixth Avenue N. between Harrison and Mercer streets. At the southern end, a new connection between First Avenue S. and Alaskan Way S. would be created at S. Dearborn Street. The design for these new street connections would accommodate pedestrian and bicycle movements. The City also plans to include new pedestrian and bicycle pathways along the central waterfront, which would connect to new paths being constructed as part of the S. Holgate Street to S. King Street viaduct replacement.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit our website at [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** shireen72@hotmail.com  
**Sent:** Thursday, April 22, 2010 6:06 PM  
**To:** Alaskan Way Viaduct  
**Subject:** AWW Feedback

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Sent from: Shireen Deboo

Address: 1700 Bellevue Ave #402

City: Seattle

State: WA

County: King County

Zip: 98122

Email: [shireen72@hotmail.com](mailto:shireen72@hotmail.com)

Phone:

Comments:

Below are concerns I would like WDOT to address in its plans for the Viaduct Replacement project: --how will you manage the proposed 60,000 cars in pioneer square? can you do this without increasing the amount of paved lanes between south downtown and the waterfront? --how will you protect the historic district from impacts of vibration and soil settlement? --Where is the \$190 million promised for transit? the tunnel is plan that focuses entirely on SOVs, while the City, County and State are attempting to move towards sustainability and reduced carbon footprints...how? --Will there be a full intersection at 6th and Mercer? --Will there be full street connections at Harrison, Thomas and John?

## Deboo Response

Ms. Deboo,

Thank you for attending the April 22, 2010, corridor hearing for the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront. The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process.

We have worked very closely with the Pioneer Square Historical District to determine ways to maintain the character of the neighborhood when we replace the central waterfront section of the Alaskan Way Viaduct. Many of the lanes south of Pioneer Square associated with the proposed bored tunnel would be to accommodate ways to enter or exit SR 99. Because the next available exit off of SR 99 would be at Republican Avenue in the South Lake Union neighborhood, we expect an increase in the number of vehicles that would move north into downtown using surface streets through SODO, Pioneer Square and the waterfront. Drivers would have the option to take several city streets including Fourth Avenue, First Avenue and a new Alaskan Way. The preliminary design for the new Alaskan Way includes improvements to handle the increase in traffic. As part of the viaduct replacement program, King County is also seeking new funding sources for expanded transit service to downtown.

New connections that are part of the proposed bored tunnel would improve the street grid at either end of the tunnel. At the northern end, John, Thomas and Harrison streets would be reconnected across Aurora Avenue. We are also studying two options for reconnecting Sixth Avenue N. between Harrison and Mercer streets. At the southern end, a new connection between First Avenue S. and Alaskan Way S. would be created at S. Dearborn Street. The design for these new street connections would accommodate pedestrian and bicycle movements. The City also plans to include new pedestrian and bicycle pathways along the central waterfront, which would connect to new paths being constructed as part of the S. Holgate Street to S. King Street viaduct replacement.

We are committed to protecting buildings along any of our proposed viaduct replacement routes. To better understand ground conditions, crews have drilled approximately 650 holes along the alignments of the proposed bored tunnel and other previously studied alternatives. Soil samples help us assess the type and characteristic of the soil along the tunnel alignment. This important information will be used to help the tunnel contractor design a boring machine that is best suited for the existing conditions, and help define where pre-construction ground stabilization measures would be needed. We have also conducted initial surveys of utilities, buildings and other facilities along the proposed tunnel route. These surveys help us identify the most sensitive structures and develop strategies to proactively minimize any damage to them.

During construction of the tunnel, we would take an active role in monitoring and responding to indications of ground movement. WSDOT's contractor would follow specific requirements for monitoring activities and equipment operation, and a team of experts would be on hand to review excavation and ground data and take mitigation measures (such as stopping the machine or changing the pressure), if needed.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Deboo Response

Thank you again for attending the hearing and leaving your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

FHWA, WSDOT, City of Seattle  
% Corridor Hearing and Open House  
Att: Ryan Bianchi  
999 Third Avenue  
Seattle, WA . 98104

4/22/10

Re The Alaskan Way Viaduct .

The State DOT recently issued preliminary plans for the bored tunnel with a cost of 3.1 billion. Others estimate the costs at 4.0 Billion. The Viaduct Preservation Group (VPG) has presented the case for saving the viaduct but to date all of our concerns have been ignored. . It would seem that the possible savings of 2 Billion cannot be ignored as contrasted to the inherent problems with the proposed tunnel project.

The sad Fact is that the proposed tunnel with 2 traffic lanes in each direction will have less capacity than the existing viaduct with no chance to expand capacity in the future. The connections at the north end will create new traffic jams at Mercer Street and Seattle Center. The proposed new construction at Western and Elliott will dump more traffic on Alaskan Way.

The tunnel layout is substandard and does not meet the published FHWA standards. The tunnel some 2 miles long does not provide for public safety with narrow lanes and inadequate shoulders. The tunnel does not provide means of egress from refuge centers spaced at 650 feet but no stairways to the surface. With a vehicle fire or accident emergency equipment will have a difficult time reaching the site due to backup traffic

A recent USGS shows the Seattle fault immediately south of the tunnel portal. It is claimed that the tunnel will move with the ground . However the tunnel will be bored in soft and unstable ground at the south end. Should a major seismic event occur the tunnel walls could be breached and the tunnel flooded as it well below sea level.

Regarding cost over runs it seems that the more complicated the project in unknown underground conditions the more overruns. Take the Bright Water project where two tunnel boring machines were stuck for some 6 months.

The work at each end will disrupt existing traffic. A recent study by Hebert Associates stated that even for a partial shut down of the viaduct could cost 2 billion each year. The DOT ignores this cost as it is not in their budgeting program. None the less it is a real cost to the public that should be considered in the decision making process.

.Finally it does not make any sense to ignore the retrofit with a savings of more than 2 billion that can be started now. The retrofit is a safe and timely answer.

Victor O. Gray P.E.  
Viaduct Preservation Group  
120 Colman Drive

Port Townsend , WA. 98368  
360-379-9862

P.S So far the DOT and City ignore the visual impact of the two ventilation buildings at each end of the project that measure 150 or 350 feet and 50 to 72 high.

Gray response

Mr. Gray,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

We have carefully examined the possibility of retrofitting the existing viaduct; however, several studies have shown that a retrofit would be a poor investment. This alternative is no longer under consideration. I have attached our current handout on the feasibility of a retrofit that includes more detailed information.

The current viaduct carries approximately 110,000 vehicles per day. Of this amount, 60,000 vehicles are trips going through downtown Seattle in the Battery Street Tunnel, which has two lanes in each direction. We expect the bored tunnel's four lanes would serve this through trip demand into the future. The rest of today's viaduct users, who are either driving into or leaving from downtown, would be able to access the downtown street grid using ramps at either end of the tunnel and then choosing among a variety of routes to connect to their destination.

In regards to your concerns about collisions, real-time traffic technology would minimize delays caused by stalled vehicles or other similar disruptions in the bored tunnel. If a collision occurs, incident detection systems would allow tunnel operators to view and respond to the incident. If one lane of the tunnel is blocked, overhead electronic signs would quickly close the lane to travelers, and variable speed limit signs would maximize traffic flow through the open lanes. Emergency vehicles would then enter the tunnel and remove the disabled vehicles.

Any replacement alternative would be safe in an earthquake, because each could be designed and constructed to current seismic standards. For example, the proposed SR 99 bored tunnel is being designed to withstand an earthquake that only happens every 2,500 years on average (in the range of a 9.0 on the Richter scale) without collapsing.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

9688 Rainier Avenue S.  
Seattle, WA 98118-5981

April 22, 2010

Mr. Ryan Bianchi  
Alaskan Way Viaduct and Seawall Replacement Program  
999 3<sup>rd</sup> Avenue, Suite 2424  
Seattle, WA 98104

Re: SR 99 PSH 1 Alaskan Way Viaduct  
Corridor Hearing  
Comments & Concerns

Dear Mr. Bianchi:

I am taking this opportunity to set out my concerns with respect to the above referenced state highway, SR 99, PSH 1, the Alaskan Way Viaduct. My comments and concerns are not set out in any particular order of importance since, together, they constitute my input into the real purpose of the corridor hearing and, hopefully, will lead to an honest "Justification to abandon an existing corridor ..." as stated in the currently adopted *Design Manual*, under Section 210.07, Corridor Hearing.

My major concern is that the *Design Manual* requires that a corridor hearing be held "**before WSDOT is committed** to a preferred alternative establishing the final route corridor." (emphasis added) Reference: *Design Manual*, page 210-23, first bulleted item under Section 210.07.

Unfortunately, from the agreement signed with Mayor Greg Nickels and Governor Gregoire last fall and considering the preliminary design work already published (see Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, February 5, 2010) the deep bore tunnel, lying under the subject corridor, is apparently a *fait accompli* which, in turn, violates the very purpose and intent of the corridor hearing since it is no longer possible to have a hearing "before WSDOT is committed", to quote from the *Design Manual*. This leads to the following questions.

1. Has the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010 been adopted and is this the final corridor for that particular design?
2. What was the process used to determine the basis for the need for a new corridor as distinct from using the existing corridor with a new or refurbished viaduct?
3. Given the new corridor is obviously being established for the construction of a deep bore tunnel, what social considerations were assumed that, ultimately, deny air and light to over 85,000 motorists per day and, troubling to say the least, carrying enormous new accident potential to those motorists?

4. Since this corridor hearing is about a new alignment for the Alaskan Way Viaduct and recognizing (*Design Manual*, page 1140-17, Principal Arterial Notes: [2] “The design year is 20 years after the year construction is scheduled to begin.”) defines the horizon year for the new facility, what is the presently established design year for this corridor facility and, secondly, where is the required, attendant 20-year traffic forecast published?
5. What engineering studies have been done to contrast the traffic operational issues of a deep bore tunnel in this corridor versus those associated with a new viaduct on the existing corridor whose lane geometry can, at a minimum, comport with the adopted new design standards (lane width, shoulder width, grade) published in the *Design Manual* such that a comparison can be made to judge the traffic carrying capacity and safety of each option?
6. Considering the new corridor and the assumed deep bore tunnel as described in the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010, what is the annual cost for electrical power for lighting and ventilation and, as needed, (inflow) water pumping?
7. How does the annual power cost for the deep bore tunnel, see question 6 above, compare with the electrical power costs for a new or refurbished viaduct on the existing corridor, including a possible new or refurbished battery Street Tunnel?
8. To what extent will the cost of electrical power for the deep bore tunnel in this new corridor, versus the power needs for a new or refurbished viaduct, including its associated Battery Street Tunnel, inhibit annual general maintenance and construction services on other high value state highways in other parts of the state?
9. When purchasing the below surface easements below privately owned property, for the tunnel subsurface right-of-way along this new corridor, how was the price of the publicly owned below surface tunnel right-of-way established?
10. To what extent will the publicly owned below surface tunnel right-of-way price be used by the City of Seattle to offset its utility relocation costs?
11. When preparing the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, a series of substandard geometric design changes were requested from FHWA, at that time limited to:
  - Design Deviation Number 1, SR 99 Shoulder Width (Inside and Outside)
  - Design Deviation Number 2, SR 99 Left Off/On-Ramps
  - Design Deviation Number 3, SR 99 Length of GradeHowever, the Draft Conceptual Design now shows the original 12-foot wide traffic lanes being reduced to 11 feet and the overhead clearance in the tunnel at 15 feet. According to the current *Design Manual*, page 720-4 the overhead

clearance is 16.5 feet. Have the reduced lane widths and overhead clearances been approved by FHWA?

12. The Port of Seattle is providing \$300 million to this project, yet its primary land based cargoes arrive by truck at many of its terminals. How does a reduced traffic lane width and reduced overhead clearance constitute an improvement valued at \$300 million versus that which is currently available with the Alaskan Way Viaduct along its current right-of-way?
13. When considering the Port of Seattle and its involvement in a substandard new corridor, how was the \$300 million share for its participation derived?
14. When considering the substandard roadway geometry of the deep bore tunnel, geometrics that fail to meet the adopted highway safety standards, it is important to recall a few fatal accidents that have taken place this year. The include:
  - January 10<sup>th</sup>, 2010 @ 5:30 p.m., a fatal accident on SR 18 caused entirely by the narrow shoulder and a disabled Dodge Neon struck by a motorcycle:
  - January 20<sup>th</sup>, 2010, an evening peak hour collision on the Alex Fraser Bridge in Vancouver B.C. involving a disabled car in the northbound curb lane struck by a flatbed commercial vehicle, which, in turn, flipped it over causing it to strike a third vehicle. The resulting fire was so intense that the driver of the third vehicle, who was killed, could not be identified. The fire was so strong that the entire bridge had to be repaired and inspected before it could open to traffic.
  - March 24, 2010, an early morning accident on SR 167 involving an automobile striking the rear end of a parked semi, again due to a narrow shoulder.
  - March 29, 2010, 2:00 p.m. involving an automobile striking the rear of a parked car on the shoulder of I-5 that was being refueled from a gallon can by the driver.

With four fatal accidents in three months involving drivers parked on narrow shoulders, what would have happened if any of these had occurred in the Alaskan Way Deep Bore tunnel?

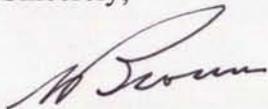
15. With the Alex Fraser Bridge accident involving a fire and its attendant closure for inspection and repair for nearly one full day, what would be the economic loss if that kind of accident were to occur in the tunnel?
16. In 2005 the importance of wide shoulders was discussed in a research paper entitled *Cross-sectional Accident Models on Flemish Motorways Based on Infrastructural Design* (Frank Van Geirt & Erik Nuyts, Provincial College of Limburg, Belgium.) Wider shoulders were found to be statistically significant with respect to lower accident frequency. What are the economic consequences or substandard shoulder designs in the tunnel along this new corridor?

17. The most recent research published in China, entitled *Characteristics of Traffic Accidents in Chinese Freeway Tunnels*, Chang'an University, China, 2008, looked at four tunnels ranging in length from 0.12 to 1.8 miles. In two years (2003, 2004) there were 134 accidents that included 6 fatalities, 32 injuries and 96-property damage only types. Freeway tunnels are assuredly dangerous places, the data suggests, even in tunnels shorter than the proposed Alaskan way Viaduct replacement tunnel. Indeed, is not the Battery Street Tunnel on the State's *High Hazard List*? Given that research and the above comments in item 14, what is the societal cost of a deep bore tunnel, what assumptions may be used, how were they defined, and how was that cost calculated?
18. For the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, complete with narrow substandard shoulders, non-standard lane widths, it may be opportune to recall the WSDOT memorandum dated February 13, 2007 addressed to Douglas MacDonald, Secretary of Transportation, over the signatures of David Dye, P.E., Urban Corridors Office Administrator, Ronald Paananen, P.E., Project Director, SR 99 Alaskan Way Viaduct Replacement, John Milton, PhD., P.E., Project Director, SR 520 Bridge Replacement, and Mark Bandy, P.E., Urban Corridors Office Traffic Engineer, who all recommended that the city of Seattle's then called surface tunnel hybrid proposal "... not be advanced for further study." Its shoulders were too narrow, among other problems noted by WSDOT engineers. What justification exists for the design now being proposed given this previous engineering opinion by WSDOT key staff engineers?
19. Setting aside the negligence issues presented by permitting a reduction in shoulder width in a long tunnel, the next issue concerning narrow shoulders must focus on capacity reduction. As long ago as 1965 it has been documented that the reduction of shoulder width from, say, 6 feet to 2 feet will lead to a reduction in flow rates of at least 17 percent. (Highway Research Board *Special Report 87* Table 5.2, *Effective Roadway Width Due to Restricted Lateral Clearances Under Uninterrupted Flow Conditions*.) Given narrow shoulders, among other elements, what is the capacity of the deep bore tunnel along this corridor and how would that capacity compare with a refurbished or rebuilt viaduct along the existing Alaskan Way corridor?
20. The concept of design negligence should be uppermost in the mind of the corridor-hearing examiner. In light of the above noted safety issues, seemingly ignored by WSDOT, the ethical and professional concerns for public safety mandated by RCW 18.43.010 "... to safeguard life, health, and public property, and to promote the public welfare ..." should be addressed. Where are they in the current concept for this corridor?

21. Current designs for the lower, northbound roadway in the deep bore tunnel on this new corridor show a width of 6 feet on the left side and 2 feet on the right. The *Design Manual*, page 1140-9 states, "Shoulders on the left between 4 feet and 8 feet wide are less desirable. A shoulder in this width range might appear to a driver to be wide enough to stop out of the through traffic when it is not. This concern is repeated in the AASHTO *Policy on Geometric Design of Highways and Streets*, 2001 edition, page 459, where it states, "Shoulder space on the left side ... is not intended to serve the same purpose as the right shoulder. The shoulder on the right, through customary use ... is accepted by all drivers as a suitable refuge space for stops." It is remarkable that WSDOT is yet again, on this corridor, deviating from current, adopted standard engineering practice. Consequently, this leads to an obvious question. In terms of highway safety, is not a new or refurbished viaduct on the original corridor the optimum choice when life safety issues are under consideration?
22. Ignoring the right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and limiting the focus on only life-safety issues alone, what is the long term cost over 50 years, for example, of the new corridor and its deep bore tunnel versus a refurbished or rebuilt viaduct on a corridor that is already owned and fully depreciated?
23. From question 22, then, what is the societal cost for the new facility in the new corridor when right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and life-safety costs are all considered.

In closing, I believe it is fair to say that when the governor and the legislature, obviously very poorly advised by the secretary of transportation and her staff, rushed into this new corridor and its new deep bore tunnel facility, no true societal cost assessment was made of what they imagined was some form of grand urban waterfront renewal. The time is now for that comparison to be made. At the very least, considering only an earthquake, life safety issues of the new corridor and its tunnel versus a refurbished or rebuilt viaduct on the old corridor must be properly assessed.

Sincerely,



Christopher V. Brown, P.E.

Brown response 1

Christopher Brown sent an edited version of this comment on 4/23. No response to the original is necessary.

1           A public corridor hearing and open house  
2           regarding the ALASKAN WAY VIADUCT & SEAWALL  
3           REPLACEMENT PROGRAM was held on April 22, 2010 at  
4           5:00 p.m. in Seattle, Washington. Verbal walk-up  
5           comments by citizens were recorded as well as the  
6           presentation by Ron Paananen, WSDOT, before Vicky L.  
7           Pinson, Notary Public in and for the State of  
8           Washington, as follows:

9                           \* \* \*

10  
11                           VERBAL COMMENT #1

12           DORLA RAINEY:

13           This is really more a question of the time frame  
14           than a comment. I would like to know, for instance,  
15           why this particular corridor hearing was not held  
16           before the tunnel route was more or less established.  
17           And also I would like to know why, before this  
18           hearing, they are already sending out bids and trying  
19           to purchase subterranean rights on the property owners  
20           in the corridor before they have established the  
21           corridor.

22           And the other thing I have problems with is that  
23           the public really has only managed input. You go and  
24           you look at all these pretty drawings; but from one  
25           hearing to the next, there are changes to the

1 drawings, and unless you know when they were there  
2 before, that there's been a change, you really don't  
3 know what the changes are.

4 And I really feel that they are way too late with  
5 this meeting, and they should have waited with  
6 purchasing subterranean rights and establishing a firm  
7 route.

8 Also, have they identified the people who benefit  
9 from the new SR 99 who will be responsible for the  
10 crossover lease? I don't think those people have been  
11 identified. And I cannot imagine who would say, Oh,  
12 yeah, I am a beneficiary of this thing. Because a lot  
13 of people are maybe tourists or they use the tunnel  
14 when they come from Everett to go to God-knows-where.  
15 How are they going to say, "Well, you're using that  
16 thing, you have to pay for it"? It's a pipe dream.  
17 That's all it is.

18 (End of comment.)

19 \* \* \*

Rainey response

Ms. Rainey,

Thank you for attending the April 22, 2010, corridor hearing for the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront. The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process.

We held the corridor hearing in April 2010 because we first needed to determine all possible bored tunnel alignments, do a cursory review of those alignments, plan the event and give the public ample notice of the hearing.

We have not yet purchased any subterranean land rights as part of the Alaskan Way Viaduct and Seawall Replacement Program. So far we have only looked into what land rights we would need to purchase under all reasonable viaduct replacement alternatives. We have contacted all property owners that could be affected by the various alignments to let them know well in advance that we may come back to purchase their subterranean land rights.

Design work can happen during the environmental review process and before a preferred alternative is selected. Additionally, we are utilizing the design-build method of contracting, which means our contractor will design most of the project as well as build it once the environmental review is complete. This will require finding the right team as soon as possible in order to keep the project on schedule should it be selected as the preferred alternative.

Funding for the Alaskan Way Viaduct and Seawall Replacement Program was set by the Washington State Legislature and the City of Seattle. Cost overruns and local improvement districts are issues that must be worked out through the State Legislature and the city respectively.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for attending the hearing and leaving your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

1 VERBAL COMMENT #2

2 ELIZABETH CAMPBELL:

3 This hearing is many months late and after the  
4 fact. It should have been held when there were true  
5 choices available. The alignment is set, the  
6 alignment was set in the Holgate King project that bid  
7 out last week. And according to WSDOT land survey  
8 from March 2010, it shows the exact same thing; that,  
9 one, a tunnel is being built, and, two, that WSDOT is  
10 proceeding to purchase subterranean land rights from  
11 the parcel owners along the tunnel alignment. It  
12 doesn't take a genius to figure this out. No other  
13 alternative requires subterranean land rights.

14 This survey that lists 106 property owners who  
15 WSDOT is intending to purchase the subterranean land  
16 rights from is testament alone to the fact that this  
17 corridor hearing is being held under false pretenses  
18 and that WSDOT is perpetrating a fraud upon the  
19 public.

20 (End of comment.)

21 \* \* \*

Campbell response 1

Ms. Campbell,

Thank you for attending the April 22, 2010, corridor hearing for the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront. The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process.

We held the corridor hearing in April 2010 because we first needed to determine all possible bored tunnel alignments, do a cursory review of those alignments, plan the event and give the public ample notice of the hearing.

We have not yet purchased any subterranean land rights as part of the Alaskan Way Viaduct and Seawall Replacement Program. So far we have only looked into what land rights we would need to purchase under all reasonable viaduct replacement alternatives. We have contacted all property owners that could be affected by the various alignments to let them know well in advance that we may come back to purchase their subterranean land rights.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for attending the hearing and leaving your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

---

**From:** Christopher Brown [cvbrown.pe@gmail.com]  
**Sent:** Friday, April 23, 2010 3:07 PM  
**To:** Alaskan Way Viaduct  
**Subject:** Comments from the Corridor Hearing  
**Attachments:** Corridor Hearing Questions and Concerns.doc

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

9688 Rainier Avenue S.  
Seattle, WA 98118

206/723-4567

Re: Revised Letter Address to Mr. Ryan Bianchi

Dear Mr. Bianchi:

When I walked into the hearing room at the Silver Cloud Inn yesterday I handed you a letter of my concerns with a series of questions.

I have reviewed that letter and, as a result, made a few minor grammatical revisions and a change in the last paragraph of the last page.

I am taking this opportunity to include that letter, as a Word File, with this e-mail.

Sorry for any inconvenience I may have caused.

Please pass on my warmest regards to Mr. Matt Preedy and Ms. Susan Everett. They were very attentive to my questions.

Yours truly,

C. V. Brown, P.E.

attach.

\*\*\* eSafel scanned this email for malicious content \*\*\*  
\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*

9688 Rainier Avenue S.  
Seattle, WA 98118-5981

April 22, 2010

Mr. Ryan Bianchi  
Alaskan Way Viaduct and Seawall Replacement Program  
999 3<sup>rd</sup> Avenue, Suite 2424  
Seattle, WA 98104

Re: SR 99 PSH 1 Alaskan Way Viaduct  
Corridor Hearing  
Comments & Concerns

Dear Mr. Bianchi:

I am taking this opportunity to set out my concerns with respect to the above referenced state highway, SR 99, PSH 1, the Alaskan Way Viaduct (AWV). My comments and concerns are not set out in any particular order of importance since, together, they constitute my input into the real purpose of the corridor hearing and, hopefully, will lead to an honest “Justification to abandon an existing corridor ...” as stated in the currently adopted *Design Manual*, under Section 210.07, Corridor Hearing.

My major concern is that the *Design Manual* requires that a corridor hearing be held “**before WSDOT is committed** to a preferred alternative establishing the final route corridor.” (emphasis added) Reference: *Design Manual*, page 210-23, first bulleted item under Section 210.07.

Unfortunately, from the agreement signed with Mayor Greg Nickels and Governor Gregoire last fall and considering the preliminary design work already published (see Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, February 5, 2010) the deep bore tunnel, lying under the subject corridor, is apparently a *fait accompli* which, in turn, violates the very purpose and intent of the corridor hearing since it is no longer possible to have a hearing “before WSDOT is committed”, to quote from the *Design Manual*. This leads to the following questions:

1. Has the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010 been adopted and is this the final corridor for that particular design?
2. What was the process used to determine the basis for the need for a new corridor as distinct from using the existing corridor with a new or refurbished viaduct?
3. Given the new corridor is obviously being established for the construction of a deep bore tunnel, what social considerations were assumed that, ultimately, deny air and light to over 85,000 motorists per day and, troubling to say the least, carrying enormous new accident potential to those motorists?

4. Since this corridor hearing is about a new alignment for the Alaskan Way Viaduct and recognizing (*Design Manual*, page 1140-17, Principal Arterial Notes: [2] “The design year is 20 years after the year construction is scheduled to begin.”) defines the horizon year for the new facility, what is the presently established design year for this corridor facility and, secondly, where is the required, attendant 20-year traffic forecast published?
5. What engineering studies have been done to contrast the traffic operational issues of a deep bore tunnel in this corridor versus those associated with a new viaduct on the existing corridor whose lane geometry can, at a minimum, comport with the adopted new design standards (lane width, shoulder width, grade) published in the *Design Manual* such that a comparison can be made to judge the traffic carrying capacity and safety of each option?
6. Considering the new corridor and the assumed deep bore tunnel as described in the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010, what is the annual cost for electrical power for lighting and ventilation and, as needed, (inflow) water pumping?
7. How does the annual power cost for the deep bore tunnel, see question 6 above, compare with the electrical power costs for a new or refurbished viaduct on the existing corridor, including a possible new or refurbished battery Street Tunnel?
8. To what extent will the cost of electrical power for the deep bore tunnel in this new corridor, versus the power needs for a new or refurbished viaduct, including its associated Battery Street Tunnel, inhibit annual general maintenance and construction services on other high value state highways in other parts of the state?
9. When purchasing the below surface easements below privately owned property, for the tunnel subsurface right-of-way along this new corridor, how was the price of the publicly owned below surface tunnel right-of-way established?
10. To what extent will the publicly owned below surface tunnel right-of-way price be used by the City of Seattle to offset its utility relocation costs?
11. When preparing the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, a series of substandard geometric design changes were requested from FHWA, at that time limited to:
  - Design Deviation Number 1, SR 99 Shoulder Width (Inside and Outside)
  - Design Deviation Number 2, SR 99 Left Off/On-Ramps
  - Design Deviation Number 3, SR 99 Length of GradeHowever, the Draft Conceptual Design now shows the original 12-foot wide traffic lanes being reduced to 11 feet and the overhead clearance in the tunnel at 15 feet. According to the current *Design Manual*, page 720-4 the overhead

clearance is 16.5 feet. Have the reduced lane widths and overhead clearances been approved by FHWA?

12. The Port of Seattle is providing \$300 million to this project, yet its primary land based cargoes arrive by truck at many of its terminals. How does a reduced traffic lane width and reduced overhead clearance constitute an improvement valued at \$300 million versus that which is currently available with the Alaskan Way Viaduct along its current right-of-way?
13. When considering the Port of Seattle and its involvement in a substandard new corridor, how was the \$300 million share for its participation derived?
14. When considering the substandard roadway geometry of the deep bore tunnel, geometrics that fail to meet the adopted highway safety standards, it is important to recall a few fatal accidents that have taken place this very year, 2010. They include:
  - January 10<sup>th</sup>, 2010 @ 5:30 p.m., a fatal accident on SR 18 caused entirely by the narrow shoulder and a disabled Dodge Neon struck by a motorcycle:
  - January 20<sup>th</sup>, 2010, an evening peak hour collision on the Alex Fraser Bridge in Vancouver B.C. involving a disabled car in the northbound curb lane struck by a flatbed commercial vehicle, which, in turn, flipped it over causing it to strike a third vehicle. The resulting fire was so intense that the driver of the third vehicle, who was killed, could not be identified. The fire was so strong that the entire bridge had to be repaired and inspected before it could open to traffic.
  - March 24, 2010, an early morning accident on SR 167 involving an automobile striking the rear end of a parked semi, again due to a narrow shoulder.
  - March 29, 2010, 2:00 p.m. involving an automobile striking the rear of a parked car on the shoulder of I-5 that was being refueled from a gallon can by the driver.

With four fatal accidents in three months involving drivers parked on narrow shoulders, what would have happened if any of these had occurred in the Alaskan Way Deep Bore tunnel?

15. With the Alex Fraser Bridge accident involving a fire and its attendant closure for inspection and repair for nearly one full day, what would be the economic loss if that kind of accident were to occur in the tunnel?
16. In 2005 the importance of wide shoulders was discussed in a research paper entitled *Cross-sectional Accident Models on Flemish Motorways Based on Infrastructural Design* (Frank Van Geirt & Erik Nuyts, Provincial College of Limburg, Belgium.) Wider shoulders were found to be statistically significant with respect to lower accident frequency. What are the economic consequences of substandard shoulder designs in the tunnel along this new corridor?

17. The most recent research published in China, entitled *Characteristics of Traffic Accidents in Chinese Freeway Tunnels*, Chang'an University, China, 2008, looked at four tunnels ranging in length from 0.12 to 1.8 miles. In two years (2003, 2004) there were 134 accidents that included 6 fatalities, 32 injuries and 96-property damage only types. Freeway tunnels are assuredly dangerous places, the data suggests, even in tunnels shorter than the proposed Alaskan way Viaduct replacement tunnel. Indeed, is not the Battery Street Tunnel on the State's *High Hazard List*? Given that research and the above comments in item 14, what is the societal cost of a deep bore tunnel, what assumptions may be used, how were they defined, and how was that cost calculated?
18. For the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, complete with narrow substandard shoulders, non-standard lane widths, it may be opportune to recall the WSDOT memorandum dated February 13, 2007 addressed to Douglas MacDonald, Secretary of Transportation, over the signatures of David Dye, P.E., Urban Corridors Office Administrator, Ronald Paananen, P.E., Project Director, SR 99 Alaskan Way Viaduct Replacement, John Milton, PhD., P.E., Project Director, SR 520 Bridge Replacement, and Mark Bandy, P.E., Urban Corridors Office Traffic Engineer, who all recommended that the city of Seattle's then called surface tunnel hybrid proposal "... not be advanced for further study." Its shoulders were too narrow, among other problems noted by WSDOT engineers. What justification exists for the design now being proposed given this previous engineering opinion by WSDOT key staff engineers?
19. Setting aside the negligence issues presented by permitting a reduction in shoulder width in a long tunnel, the next issue concerning narrow shoulders must focus on capacity reduction. As long ago as 1965 it has been documented that the reduction of shoulder width from, say, 6 feet to 2 feet will lead to a reduction in flow rates of at least 17 percent. (Highway Research Board *Special Report 87 Table 5.2, Effective Roadway Width Due to Restricted Lateral Clearances Under Uninterrupted Flow Conditions*.) Given narrow shoulders, among other elements, what is the capacity of the deep bore tunnel along this corridor and how would that capacity compare with a refurbished or rebuilt viaduct along the existing Alaskan Way corridor?
20. The concept of design negligence should be uppermost in the mind of the corridor-hearing examiner. In light of the above noted safety issues, seemingly ignored by WSDOT, the ethical and professional concerns for public safety mandated by RCW 18.43.010 "... to safeguard life, health, and public property, and to promote the public welfare ..." should be addressed. Where are they in the current concept for this corridor?

21. Current designs for the lower, northbound roadway in the deep bore tunnel on this new corridor show a width of 6 feet on the left side and 2 feet on the right. The *Design Manual*, page 1140-9 states, “Shoulders on the left between 4 feet and 8 feet wide are less desirable. A shoulder in this width range might appear to a driver to be wide enough to stop out of the through traffic when it is not. This concern is repeated in the AASHTO *Policy on Geometric Design of Highways and Streets*, 2001 edition, page 459, where it states, “Shoulder space on the left side ... is not intended to serve the same purpose as the right shoulder. The shoulder on the right, through customary use ... is accepted by all drivers as a suitable refuge space for stops.” It is remarkable that WSDOT is yet again, on this corridor, deviating from current, adopted standard engineering practice. Consequently, this leads to an obvious question. In terms of highway safety, is not a new or refurbished viaduct on the original corridor the optimum choice when life safety issues are under consideration?
22. Ignoring the right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and limiting the focus on only life-safety issues alone, what is the long term cost over 50 years, for example, of the new corridor and its deep bore tunnel versus a refurbished or rebuilt viaduct on a corridor that is already owned and fully amortized?
23. From question 22, then, what is the societal cost for the new facility in the new corridor when right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and life-safety costs are all considered? Stated differently, when will there be a road user benefit analysis (RUBA) conducted in accordance with adopted standards, that considers the new deep bore tunnel in the new corridor versus the existing corridor with either (1) a refurbished AWW or (2) a new AWW?

In closing, I believe it is fair to say that when the governor and the legislature, obviously very poorly advised by the secretary of transportation and her senior staff, rushed into this new corridor and its new deep bore tunnel facility, no true societal cost assessment was made on what they imagined was some form of grand urban waterfront renewal. The time is now for that comparison to be made. At the very least, life safety issues of the new corridor and its tunnel versus a refurbished or rebuilt viaduct on the old corridor must be properly assessed, at a minimum.

Sincerely,

Christopher V. Brown, P.E.

Brown response 2

Dear Mr. Brown,

Thank you for attending the April 22, 2010, corridor hearing for the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront. The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process.

Rather than respond to each of the issues you have raised in your letter one by one, I thought it would be more expeditious to respond in general and offer to meet with you to discuss your detailed questions at a later date.

There are two main routes under consideration for SR 99 through downtown Seattle: along the waterfront and through the existing Battery Street Tunnel, and under the central business district with a bored tunnel. Both of these routes come with trade-offs that are being analyzed in a second Supplemental Draft Environmental Impact Statement (SDEIS) for the project. A public review of the SDEIS and selection of a preferred alternative are scheduled for later this year.

In your letter you allege many potential problems with the bored tunnel alternative related primarily to traffic safety, roadway geometry, operational costs, and traffic capacity. I would like to respond to a few of those issues here, but again I think it would be best if we meet to discuss this in more detail.

Public and traffic safety is a top priority for WSDOT. This is why the state is pursuing a replacement of the seismically vulnerable viaduct as quickly as possible. If a moderate earthquake were to strike Seattle, the viaduct would likely collapse either partially or entirely due to structural and foundation deficiencies. We want to take the viaduct down on our own terms rather than leave it to chance, so that the travelling public will be safe. In addition, the existing viaduct and Battery Street Tunnel do not meet current design guidelines, and several locations within the corridor are known to experience more accidents than other roadways. Rebuilding the viaduct in its current location would solve some of these problems but would not straighten out the sharp curves at the north and south ends of the Battery Street Tunnel. A new bored tunnel, on the other hand, would provide an opportunity to remove the sharp curves from the alignment and smooth out the route through downtown.

It is true that an elevated structure solution would be cheaper to operate than a tunnel. Tunnels require more electricity due to their lighting, ventilation and other systems. We would be happy to provide you with a summary of expected operational costs for each alternative when we meet with you.

Regarding traffic operations, the travel times and other metrics describing how traffic would move will be described in the SDEIS. Preliminary indications are that traffic would operate acceptably with any of the alternatives under consideration. Trip patterns would change in many cases due to the changes in ramp locations.

Thank you for your participation in the corridor hearing process, and I look forward to meeting with you soon.

Regards,

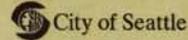
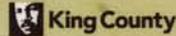
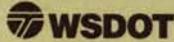
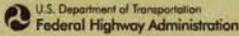
Brown response 2

Alec Williamson  
WSDOT Engineering Manager  
Alaskan Way Viaduct and Seawall Replacement Program

Alaskan Way Viaduct & Seawall Replacement Program



04.10



Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

Yes, I would like to see the Viaduct replace  
But not with the tunnel, because  
you can't go in to Western Street to go to  
Ballard, also if there is an accident in the  
tunnel you cannot turn traffic around. Also  
you are taking away our view. Replace it with a

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

new double level. So that we may go  
to Anika & Ballard and Downtown Seattle  
let the people of West Seattle take a  
Vote on it. And see what everyone is saying  
Thank you

How did you hear about today's public event?

TV 5

Name (optional):

Shonda Tipton

Contact information (optional):

7770-35th Ave SW  
Seattle, WA 98126

Tyson-Matthews response

Ms. Tyson-Matthews,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

When other elements of the Alaskan Way Viaduct and Seawall Replacement Program are completed in addition to using the bored tunnel, travelers heading to northwest Seattle would be able to use a new four-lane Alaskan Way that crosses over the railroad tracks and connects to Elliott and Western avenues. You would be able to access this roadway directly from SR 99 near S. Royal Brougham Way.

We have conducted traffic modeling of the proposed bored tunnel with and without new Alaskan Way to determine how they would affect travelers in northwest Seattle. Preliminary results indicate that travel times for trips between 15th Avenue W. and through the tunnel would be generally within one to two minutes of the same trip if the viaduct were still in place. The same is true for trips between 15th Avenue W. and S. Spokane Street using the waterfront. Southbound trips during the evening peak period are estimated to take a few minutes longer.

In regards to your concerns about collisions, real-time traffic technology would minimize delays caused by stalled vehicles or other similar disruptions in the bored tunnel. If a collision occurs, incident detection systems would allow tunnel operators to view and respond to the incident. If one lane of the tunnel is blocked, overhead electronic signs would quickly close the lane to travelers, and variable speed limit signs would maximize traffic flow through the open lanes. Emergency vehicles would then enter the tunnel and remove the disabled vehicles.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

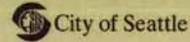
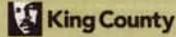
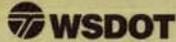
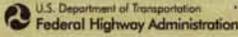
Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

# Alaskan Way Viaduct & Seawall Replacement Program



04.10



## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

The most important factor to me is what is done at the surface of Alaskan Way downtown; I would like to see an elevated promenade/park - replacing the viaduct with a pedestrian sort of highway. I think this →

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

Let's do it, and let's get the maximum public benefit in the process.

How did you hear about today's public event?

Publicola (blog)

Name (optional): Aspen Swartz

Contact information (optional):

ASPENDEL@GMAIL.COM

Place  
stamp  
here

Alaskan Way Viaduct and Seawall Replacement Program  
c/o Ryan Bianchi  
999 Third Avenue, Suite 2424  
Seattle, WA 98104

could be a unique opportunity for Seattle to create a stunning, world-class, multi-use park, bike path, tourist attraction, and green space downtown. The lower levels could be leased for retail/office purposes to provide income to help pay for the structure. A surface-level park wouldn't replace the birds-eye view of the bay & city that the current viaduct provides.

Fold Along This Line

So I would greatly prefer an underground option, whether cut-and-cover tunnel or bored tunnel.

Which one of those is better? I trust the traffic engineers to figure it out.

Swartz response

Mr. Swartz,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

The City of Seattle is leading the Alaskan Way and central waterfront projects, with input from the state, county and the public. If you are interested in speaking with someone concerning waterfront design elements, please contact Steve Pearce with the Seattle Department of Transportation at 206-684-8371 or [Steve.Pearce@seattle.gov](mailto:Steve.Pearce@seattle.gov).

A second Supplemental Draft Environmental Impact Statement will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

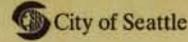
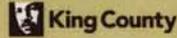
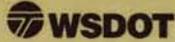
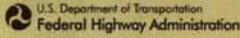
Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

# Alaskan Way Viaduct & Seawall Replacement Program



04.10



## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

I think the bored tunnel is the best option. The other options won't solve the mess on the waterfront

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

The staff at the meeting were well informed + helpful

How did you hear about today's public event?

DOT web site

Name (optional):

Wayne Daly

Contact information (optional):

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

Daly response

Mr. Daly,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

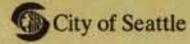
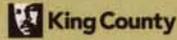
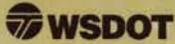
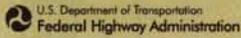
Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

# Alaskan Way Viaduct & Seawall Replacement Program



04.10



## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

I like the proposed change.

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

\* Mercer West needs to be two lanes each direction all the way to Elliott. Otherwise you will create a bottleneck.

How did you hear about today's public event?

Seattlepi.com

Name (optional):

Contact information (optional):

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

The Washington State Department of Transportation is a public agency and is subject to the State of Washington's Public Records Act (RCW 42.56). Therefore, this comment form may be made available to anyone requesting them for noncommercial purposes.

Anonymous response

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

As part of the viaduct replacement program, the City of Seattle plans to make Mercer Street a two-way corridor between I-5 and Elliott Avenue W. Plans include at least two lanes in each direction along the corridor except on W. Mercer Place, where the roadway is physically constrained. The City is examining options for providing a second uphill lane in this area to assist freight traffic. For more information or to provide comments about this project, please visit the City of Seattle's website at [www.seattle.gov/transportation/ppmp\\_mercer.htm](http://www.seattle.gov/transportation/ppmp_mercer.htm).

A second Supplemental Draft Environmental Impact Statement will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

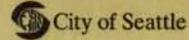
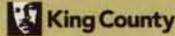
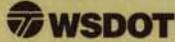
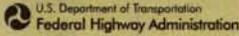
Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

# Alaskan Way Viaduct & Seawall Replacement Program



04.10



## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

Please smooth out the alignment as much  
as possible to make the driving experience  
a pleasure. The lighting and interior  
finish should be as light filled and uniform  
as possible. Please use a single, end to end

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

row of fluorescent lights with no interruptions  
to create a uniformly lit space. Paint the  
ceiling and walls a glossy white/pale yellow  
to reflect uniform light throughout the space.

How did you hear about today's public event?

Please create a sleek, clean-lined and  
elegant tunnel interior. Wonderful public  
work!

Name (optional):

Barbara Simpson

Contact information (optional):

\_\_\_\_\_  
\_\_\_\_\_

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

Simpson response

Ms. Simpson,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

The proposed SR 99 bored tunnel would include the latest lighting technology. Transitional lighting would help motorists adjust their eyes as they enter the tunnel. Nighttime and emergency roadway lighting would also be provided.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

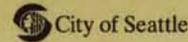
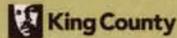
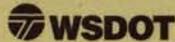
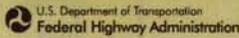
Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

# Alaskan Way Viaduct & Seawall Replacement Program



04.10



## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle? *bad idea!*

*Why do you play fast + loose with the facts? One example is that from late 2006 to early March 2007, Gov. Gregoire was vehemently in favor of rebuilding the AWV (SR99) in its current footprint, despite the objections of Greg Nickles + Ron Sims. That should be on the timeline poster, not the obfuscation that is there now.*

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

*I know that Gregoire, Sims + Nickles signed off on the "Moving Forward" project in late 2007 or so. BUT, whose idea was it to break up SR99 AWV in such a way, and then to decide that the southern part H2K would be surface rather than elevated? Either solution could fit with any solution for the mile in the middle?*

How did you hear about today's public event?

*email from WSDOT*

Name (optional):

*Harvey Friedman*

Contact information (optional):

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

Friedman response 1

Mr. Friedman,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

To clarify your question regarding the "Moving Forward" program, the Holgate Street to King Street project will replace the existing two level viaduct with a side-by-side bridge over Atlantic Street and over the Burlington Northern railroad track that crosses from the east side to the west side of SR 99. It is designed to be compatible with any of the three central waterfront alternatives currently under consideration.

For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

I think that WSDOT and its consultants interpret the federal rules for "Environmental Impact Statement" differently than I do.

The best way that I can explain it is to consider the prohibition on building on migrating waterfowl resting wetlands. These areas are not necessarily in constant use year-round but are definitely to be maintained. Now the WSDOT reply to my complaint that the Draft Environmental Impact Statement didn't address my concern that valuable views would be stolen from northbound users of the H2K section of the AWV. It is as if the WSDOT responders only considered the worms in the wetland and not the waterfowl that appear periodically. People are not waterfowl and can adapt when necessary but it seems to me that the users of the AWV, not just the landowners near it, should have a vote on whether to rebuild a safer, quieter AWV.

Those adapters affected are the everyday commuters into downtown Seattle, the everyday commuters through downtown Seattle (who might not have a problem (unless claustrophobic) if they are traveling southbound), the everyday commuters out of downtown Seattle, the tradespeople (plumbers, electricians, roofers, HVAC folk, communications setup and repair workers, etc.) who use the AWV several times a day to go in, out, through Seattle, those living in the Puget Sound region who bring visiting guests from Sea-Tac airport north on the AWV so that those visitors can appreciate the diversity of Seattle. All should have a vote on whether to have to permanently adapt or not.

The vote should be based on complete information, not just upon what the powers-that-be think will convince the voting public to vote for or against what the p-t-b want as, for example the March 2007 vote limited to Seattle residents only in which only 2 of the 6 outcomes had meaning.

None of the WSDOT engineers had the courage to correct the information released to the media about the rebuild. There were 2 ways to do the rebuild, quickly with a total shutdown for 3 years, or, with ongoing construction, demolition, and limited usage that would take 10 years. What the media reported was that the rebuild would involve total closure for 10 years – a gross canard.

Democracy only works when the electorate is informed. Slanting information to deceive the voters is unethical. But, it is obvious why it was done. If folks knew that they could have a safer, quieter, elevated AWV for even the same amount of money that a deep-bored tunnel would cost, the vote would probably be 3-1 in favor of rebuild. Downtown developers using Jan Drago, Tayloe Washburn, and Tim Ceis as front voices, wanted to get rid of the elevated SR99 AWV so that they could make more profits. Their attitude was that if the smooth talking front people couldn't convince the public, then too bad for the public.

This scheme was not new but had been going on for years. Even before the Nisqually earthquake of 2001, the parameters for the waterfront design charrette were that AWV wouldn't be there. Despite that two entrants did include AWV; they definitely didn't receive honorable mention. As early as 2004, I suggested using quieter pavement as what one hears when going from King to Snohomish county on I-5, and even acoustic tiles on the bottom of the upper deck. Because this might reduce noise so that only those with very sensitive hearing would complain, it wasn't even tried especially because the intent was too knock down the AWV anyway.

To come back to the FONSI, I think that replacing elevated SR99 AWV with a surface side-by-side highway has a significant impact and that it would take an informed (all options, costs, timelines, honestly presented) vote of the entire region to allow you to claim no significant impact. Even if this vote shows that the majority don't care, it would still be a significant impact to me, but I would cease writing to you about it.

Harvey Friedman

Friedman response 2

Mr. Friedman,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

Several comments were received pertaining to a public vote of the alternatives under consideration. A vote on this project is not being considered at this time, and WSDOT does not have the authority to conduct a public vote.

Your comments regarding view, noise and construction effects are being analyzed as part of the project's Environmental Impact Statement. The Second Supplemental Draft Environmental Impact Statement (SDEIS) will be released in fall 2010. You will have an additional opportunity to comment on the environmental effects of the project once the second SDEIS is released.

Thank you again for attending the hearing and leaving your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** Christopher Brown [cvbrown.pe@gmail.com]  
**Sent:** Wednesday, April 28, 2010 11:56 AM  
**To:** Alaskan Way Viaduct  
**Cc:** Elizabeth Campbell; Arthur M. Skolnik; gene hoglund; Victor Gray  
**Subject:** Released from eSafe1 SPAM quarantine: Re: Comments from the Corridor Hearing - Port of Seattle Funding  
**Attachments:** AWW Port Correspondence.doc  
**Follow Up Flag:** Follow up  
**Flag Status:** Completed

9688 Rainier Avenue S.  
Seattle, WA 98118

Tel: 206/723-4567

Mr. Ryan Bianchi  
WSDOT  
999 3rd Avenue, Suite 2424  
Seattle, WA 98104

Re: Port of Seattle Financial Participation

Dear Mr. Bianchi:

Following your corridor hearing last Thursday, April 22nd, where I took the opportunity to discuss the project with a Port staffer, I sent the attached letter to the Port of Seattle.

I am enclosing a copy for your review and comment since it lists the financial aspects of the Port's participation in light of their adopted 2010 seaport budget. As you will see, it is not pretty.

When you contrast the benefit of two related projects to the Port, first with its \$5.5 million portion of the SR 519 link to Terminals 37 and 46, that actually serves container truck traffic, and second, against the AWW and its \$300 million for what at best is a mere pedestrian promenade that can only serve Port related pedestrians from cruise ships in the summer, in place of an existing harbor front sidewalk I should point out, you can see that financially it is a dreadful investment. In the vernacular, it does not "pencil out".

May I ask that you consider this aspect (Port of Seattle financial contribution) when you prepare the mandated *Corridor Hearing Summary* of Section 210.07, page 210-23, of the **Design Manual**.

In the case of the Port, I am anxious to know how a pedestrian facility that is useful during only the summer cruise months can be valued at \$300 million or, for rough estimates, at a rate more than three times their entire 2010 seaport budget, especially in light of the existing sidewalk along the current seawall that is every bit as good as the promenade.

Thank you for your kind consideration to this request.

Yours truly,

Christopher V. Brown, P.E.

attachment - as a Word File

\*\*\* eSafel scanned this email for malicious content \*\*\*

\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*

9688 Rainier Avenue S.  
Seattle, WA 98118-5981

April 27, 2010

Ms. Charla Skaggs, Corporate Media Officer  
Port of Seattle  
P. O. Box 1209  
Seattle, WA 98111-1209

Re: SR 99 PSH 1 Alaskan Way Viaduct Corridor  
Deep Bore Tunnel Replacement  
Port of Seattle Financial Contribution

Dear Ms. Skaggs:

I very much appreciated the opportunity to meet with you briefly at the WSDOT *Corridor Hearing* at the Silver Cloud Hotel last Thursday, April 22<sup>nd</sup>, and discuss the financial contribution of the Port to WSDOT for a share of the subject Alaskan Way Viaduct (AWV) Deep Bore Tunnel replacement project. The Port's share of the project, as you know, is \$300 million. In this regard, there are several considerations that deeply bother me. Accordingly, I'd like to set them out and, when convenient, go over them with you and/or your associates.

First, if we take that \$300 million sum over 30 years at 4.375 percent, the same rate for GO bonds sold by the Port of Tacoma, it will total \$1.207 billion. This is not a small sum when compared to the published Port's 2010 "seaport" revenue of \$93.37 million. Roughly, the Port's AWV contribution of \$300 million is three times its 2010 "seaport" budget estimate.

Second, the recently opened *SR 519 S. Seattle Intermodal Access – Royal Brougham Way* project, improving access to the Port's Terminals 37 and 46 via S. Atlantic Street and Edgar Martinez Way, had a total cost of \$84.35 million. The Port's share was \$5.5 million or seven (7) percent. I assume that is the proportionate share of the SR 519's average daily traffic (ADT).

Third, of the Port's major facilities we know that SeaTac Airport, the Southwest Harbor Project, Terminals 3 and 5 (primarily a rail-oriented transshipment facility, I recall) and Harbor Island, Terminal 18, all gain access to the freeway network via arterial links situated far to the south. Their traffic associated with the AWV is miniscule, if not zero.

To the north of the AWV project are Terminal 91, used by some cruise ships and for automobile imports, the Grain Terminal, Terminal 86, the Bell Harbor Marina, Terminal 66, the Port's offices at Pier 69 and the Bell Street Pier, Pier 66, all located north of the AWV project. Their vehicular traffic contributions to the AWV are slight. Further, the Port's Shilshole Bay Marina and the Fishermen's Terminal all have negligible traffic associated with the Deep Bore Tunnel facility since none of them have access to it.

Fourth, from the exhibits at the *Corridor Hearing* we know that the proposed geometric design of the Deep Bore Tunnel has serious design deficiencies including the following:

- Design Deviation Number 1, SR 99 Shoulder Width (Inside and Outside)
- Design Deviation Number 2, SR 99 Left Off/On-Ramps
- Design Deviation Number 3, SR 99 Length of Grade

Fifth, the AWW Conceptual Design (dated February 5, 2010) now shows the 12-foot wide traffic lanes, first presented to the legislature in early 2009, reduced to 11 feet. The overhead clearance in the tunnel, with a standard clearance of 16.5 feet according to the *Design Manual*, page 720-4, is now shown as being only 15 feet.

These are obviously major reductions in the adopted safety design standards that bode ill for traffic operations and especially for the delivery of accident emergency services. In this regard you may wish to review a recent research paper entitled *Cross-sectional Accident Models on Flemish Motorways Based on Infrastructural Design* (Frank Van Geirt & Erik Nuyts, Provincial College of Limburg, Belgium) where wider shoulders were found to be statistically significant with respect to lower accident frequency, and an AWW specific publication entitled *Characteristics of Traffic Accidents in Chinese Freeway Tunnels*, Chang'an University, China, 2008, that looked at four tunnels ranging in length from 0.12 to 1.8 miles. Note that all of these tunnels are far shorter than the AWW replacement tunnel. They report that in two years (2003, 2004) there were 134 accidents that included 6 fatalities, 32 injuries and 96 property-damage-only types. Freeway tunnels are assuredly dangerous places, their data suggests, even in tunnels shorter than the proposed AWW replacement tunnel. Indeed, is not the Battery Street Tunnel on the State's *High Hazard List*? These documents should trouble the Port since you may assume you will be joined in any major suit involving accidents in the tunnel.

Sixth, at the February 9<sup>th</sup>, 2010 hearing before the Port commissioners I pointed out that a whole class of cargo that is often found crossing any port facility - explosive cargoes such as propane, butane, solvents and higher distillates, and some fertilizers such as those used by Timothy McVeigh - are all prohibited in highway tunnels. Why would the Port invest in a project that does not serve all of its customers?

Every one of these concerns, especially when taken together, raises in my mind a very serious financial question that needs to be answered.

From the agreement struck between the Port and WSDOT, the Port is providing \$300 million to this project. So, how does a 4-lane primary arterial with reduced vehicular capacity, reduced traffic lane widths, inadequate shoulders, and reduced overhead tunnel clearances constitute "an improvement" valued at \$300 million versus that which is

Ms. Charla Skaggs, Corporate Media Officer  
April 27, 2010  
Page 3

currently available with the Alaskan Way Viaduct along its current right-of-way? When considering the Port and its involvement in what is clearly a substandard new vehicular corridor, albeit providing some sort of linear pedestrian promenade for the city's waterfront and Piers 66 and 69, the Bell Street terminal and the Port's headquarters, how was the \$300 million share for its participation derived, especially when considering the above described \$5.5 million Port share to the new *SR 519 S. Seattle Intermodal Access – Royal Brougham Way* project that, notably, provides direct access to a major overseas container terminal? The AWW project provides no direct terminal access.

Stated differently, if the benefit to the port for the *SR 519 S. Seattle Intermodal Access – Royal Brougham Way* project was computed to be seven (7) percent, given its immediate access to Terminals 37 and 46 and their shipping container deliveries, how could there be any financial contribution to the proposed AWW and its deep bore tunnel since it provides no vehicular access to any major terminal that is not already available? After all, the AWW project is at best a fancy pedestrian promenade and, for the Port, a promenade significantly usable only during the summer cruise ship season.

Next, consider the Port's current maritime related budget since it offers another contrast. The Port's contribution to the *SR 519 S. Seattle Intermodal Access – Royal Brougham Way* project, at \$5.5 million, is 5.9 percent of the 2010 "seaport" budget ( $\$5.5/\$93.37 \times 100$ ). The proposed AWW share is 321.3 percent of the 2010 "seaport" budget ( $\$300/\$93.37 \times 100$ ). This huge disparity, 5.9 percent versus 321.3 percent, especially for a project that serves not a single cargo container (TEU) or cruise ship passenger, other than with a supposed promenade (sidewalks already exist along the seawall as you know) should concern you. It does me. Hence, I must ask, what is the benefit?

In view of these concerns I would like to have you assemble the documentation and all relevant data used in deriving this \$300 million share and meet with me, at your convenience, to explain it so that my concerns are fully assuaged, assuming they can be.

Thank you for your attention to this matter. I look forward to meeting you on this.

Yours sincerely,

Christopher V. Brown, P.E.

cc Port Commissioners  
Mr. Ryan Bianchi, WSDOT

Brown response 3

Comment forwarded to the Port of Seattle – No response necessary

# Alaskan Way Viaduct & Seawall Replacement Program



U.S. Department of Transportation  
Federal Highway Administration

WSDOT

King County

Port of Seattle

City of Seattle

04.10

## Open house comment form

What are your thoughts about the proposed change in alignment to the SR 99 corridor in downtown Seattle?

We live in Kent. We have friends and @lasmates  
in Ballard. Our route (to avoid the I-5 downtown  
Seattle disaster) is to use SR509 to East Marginal to  
the viaduct to Western, Elliot into Ballard. There  
will be NO Western <sup>Acc</sup> access. MERCER/Roy access isn't acceptable!

Do you have any questions or comments about the Alaskan Way Viaduct and Seawall Replacement Program?

We appreciate the open house at Ballard High School - yes,  
we drove all the way from Kent - it is important to us.

How did you hear about today's public event?

The Seattle Times announcement by WSDOT.

Name (optional):

Pat Itzen

Contact information (optional):

253-631-0113

pat.itzen@juno.com

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

Itzen response

Mr. and Mrs. Itzen,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

When other elements of the Alaskan Way Viaduct and Seawall Replacement Program are completed in addition to using the bored tunnel, travelers heading to northwest Seattle would be able to use a new four-lane Alaskan Way that crosses over the railroad tracks and connects to Elliott and Western avenues. This project is independent of the Viaduct Replacement Project and is led by the City of Seattle. You would be able to access this roadway directly from SR 99 near S. Royal Brougham Way. Traffic signals along the waterfront would be operated to ensure through trips move efficiently.

We have conducted traffic modeling of the proposed bored tunnel with and without new Alaskan Way to determine how they would affect travelers in northwest Seattle. Preliminary results indicate that travel times for trips between 15th Avenue W. and through the tunnel would be generally within one to two minutes of the same trip if the viaduct were still in place. The same is true for trips between 15th Avenue W. and S. Spokane Street using the waterfront. Southbound trips during the evening peak period are estimated to take a few minutes longer.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you again for your comments. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** Derek Schleich [fschleich@gmail.com]  
**Sent:** Sunday, May 09, 2010 9:25 AM  
**To:** Alaskan Way Viaduct  
**Subject:** Corridor hearing

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

I like either tunnel option but would prefer the bored tunnel. The viaduct is a major thoroughfare for locals, taking stress off of I-5 and crosstown arterials.

Additionally I would like a segment of the viaduct preserved and repurposed for civic use. This would preserve our history, provide space to the city, and be an excellent gesture about reducing waste. I think this would fit well with Seattle and help us feel like Seattle culture isn't being slowly blown up and replaced with expensive alternatives.

Derek Schleich  
Downtown resident

Schleich response

Mr. Schleich,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

Preserving a segment of the viaduct is not part of our plans, because we would build a new Alaskan Way in the footprint of the bridge once it is torn down. This new Alaskan Way would serve a vital role for traffic heading into and out of the downtown core and maintaining access to northwest Seattle. You may wish to provide your recommendation to the City of Seattle, which is putting a process in place to gather public input about what to do with the waterfront once the viaduct is no longer there. For more information visit the City's website at [www.seattle.gov/dpd/Planning/Central\\_Waterfront/Overview/](http://www.seattle.gov/dpd/Planning/Central_Waterfront/Overview/).

You will also have a chance for further comment when a second Supplemental Draft Environmental Impact Statement is published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you for participating in the corridor hearing process. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** Tim Baker [TimB@kcha.org]  
**Sent:** Monday, May 10, 2010 3:58 PM  
**To:** Alaskan Way Viaduct  
**Subject:** Corridor hearing

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Please provide an exit to Western Ave or something close by to allow traffic to go directly to Queen Anne, Ballard, Magnolia and Belltown. I use the viaduct for my commute, have done so for many years and use the Western St exit to get home to Queen Anne. By not having an exit at Western, traffic will be forced to use the exit in north QA, which will cause backups back onto Aurora or have drivers exit at Fremont and loop around and use the Fremont bridge. And Ballard/Magnolia traffic will be forced to go through Phinney/Fremont, which the roads there do not have the capacity. I'm practically begging for an Western St exit!

*Tim Baker*  
**Senior Management Analyst**  
*King County Housing Authority*  
206-574-1111  
206-574-1104 fax  
[www.kcha.org](http://www.kcha.org)

Baker response

Mr. Baker,

Thank you for your comments regarding the proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront.

The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process. A preferred alternative has not yet been selected by for this project. A preferred alternative decision is expected to be made by the State, City, and County in coordination with FHWA by fall 2010.

We will consider your comments as we continue to study the proposed change to the route of SR 99 in downtown Seattle. As you may know, we have studied five different routes for the proposed bored tunnel, and we will continue to study the latest proposed bored tunnel alignment, along with the previous elevated structure and cut-and-cover tunnel alternatives, as part of the environmental review process.

When other elements of the Alaskan Way Viaduct and Seawall Replacement Program are completed in addition to using the bored tunnel, travelers heading to northwest Seattle would be able to use a new four-lane Alaskan Way that crosses over the railroad tracks and connects to Elliott and Western avenues. This project is independent of the Viaduct Replacement Project and is led by the City of Seattle. You would be able to access this roadway directly from SR 99 near S. Royal Brougham Way. Traffic signals along the waterfront would be operated to ensure through trips move efficiently.

We have conducted traffic modeling of the proposed bored tunnel with and without the new Alaskan Way to determine how they would affect travelers in northwest Seattle. Preliminary results indicate that travel times for trips between 15th Avenue W. and through the tunnel would be generally within one to two minutes of the same trip if the viaduct were still in place. The same is true for trips between 15th Avenue W. and S. Spokane Street using the waterfront. Southbound trips during the evening peak period are estimated to take a few minutes longer.

A second Supplemental Draft Environmental Impact Statement for this project will be published for public review in fall 2010. It will look at how the transportation system functions, with a focus on the various elements in the bored tunnel alternative, and will build upon the previous review of other replacement alternatives.

Thank you for participating in the corridor hearing process. For the most up-to-date information on the program, please visit [www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org).

Regards,

Ron Paananen, P.E.  
Program Administrator  
Alaskan Way Viaduct and Seawall Replacement Program

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**From:** campbell.beth@comcast.net  
**Sent:** Wednesday, May 12, 2010 10:45 AM  
**To:** Alaskan Way Viaduct  
**Subject:** Corridor Hearing Comments  
**Attachments:** CampbellCorridorHearingCommentMay132010.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Please find attached my comments regarding the corridor hearing.

\*\*\* eSafel scanned this email for malicious content \*\*\*  
\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*

May 13, 2009

Mr. Ryan Bianchi  
Alaskan Way Viaduct and Seawall Replacement Program  
999 3<sup>rd</sup> Avenue, Suite 2424  
Seattle, WA 98104

Re: SR 99 PSH 1 Alaskan Way Viaduct  
Corridor Hearing  
Comments & Concerns

Dear Mr. Bianchi:

I am taking this opportunity to set out my concerns with respect to the above referenced state highway, SR 99, PSH 1, the Alaskan Way Viaduct (AWV), and its “realignment”. My comments and concerns are not set out in any particular order of importance since, together, they constitute my input into the real purpose of the corridor hearing and, hopefully, will lead to an honest “Justification to abandon an existing corridor ...” as stated in the currently adopted *Design Manual*, under Section 210.07, Corridor Hearing.

The time to have held this hearing was many months if not a year or more ago, before the adoption of the de facto plan to proceed with the bored tunnel project. This corridor hearing was pro forma only, and intended as a CYA exercise only. The idea that there will be any value or change taken out of this event is pretty absurd at this point – with the H2K project, which WSDOT disingenuously insists is neutral, poised to begin and to literally usher in the era of the deep bored tunnel.

I have further objections in that no consideration has been or is being given to the incontrovertible fact that the Alaskan Way Viaduct, its location, capacity, and all of its structural and transportation elements, the six points of ingress/egress, and its appurtenances north and south of it, the mainline of SR99, all those things which establish the Viaduct’s identity/use/legal standing, has statutorily protected status as an essential public facility, as a highway of statewide significance, and as a historical transportation structure; none of which has been extinguished in any forum, legal or otherwise, nor through any legislative, executive, or administrative acts. Therefore this idea that with this corridor hearing or any of the prior or ongoing actions the State and City are taking that the Viaduct can be so easily eliminated is false. In order for there to be any realignment all of these status’s must be extinguished; and none of this was addressed by the corridor hearing and its documentary record.

I am appending hereto the comments of Christopher Brown, and by their inclusion my intention is that the conclusions and premises contained in them are to be considered by the reviewer as if they were my own independent comments in response to the corridor hearing.

My major concern is that the *Design Manual* requires that a corridor hearing be held “*before WSDOT is committed*” to a preferred alternative establishing the final route corridor.” (emphasis added) Reference: *Design Manual*, page 210-23, first bulleted item under Section 210.07.

Unfortunately, from the agreement signed with Mayor Greg Nickels and Governor Gregoire last fall and considering the preliminary design work already published (see Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, February 5, 2010) the deep bore tunnel, lying under the subject corridor, is apparently a *fait accompli* which, in turn, violates the very purpose and intent of the corridor hearing since it is no longer possible to have a hearing “before WSDOT is committed”, to quote from the *Design Manual*. This leads to the following questions:

1. Has the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010 been adopted and is this the final corridor for that particular design?
2. What was the process used to determine the basis for the need for a new corridor as distinct from using the existing corridor with a new or refurbished viaduct?
3. Given the new corridor is obviously being established for the construction of a deep bore tunnel, what social considerations were assumed that, ultimately, deny air and light to over 85,000 motorists per day and, troubling to say the least, carrying enormous new accident potential to those motorists?
4. Since this corridor hearing is about a new alignment for the Alaskan Way Viaduct and recognizing (*Design Manual*, page 1140-17, Principal Arterial Notes: [2] “The design year is 20 years after the year construction is scheduled to begin.”) defines the horizon year for the new facility, what is the presently established design year for this corridor facility and, secondly, where is the required, attendant 20-year traffic forecast published?
5. What engineering studies have been done to contrast the traffic operational issues of a deep bore tunnel in this corridor versus those associated with a new viaduct on the existing corridor whose lane geometry can, at a minimum, comport with the adopted new design standards (lane width, shoulder width, grade) published in the *Design Manual* such that a comparison can be made to judge the traffic carrying capacity and safety of each option?
6. Considering the new corridor and the assumed deep bore tunnel as described in the Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, dated February 5, 2010, what is the annual cost for electrical power for lighting and ventilation and, as needed, (inflow) water pumping?
7. How does the annual power cost for the deep bore tunnel, see question 6 above, compare with the electrical power costs for a new or refurbished viaduct on the existing corridor, including a possible new or refurbished battery Street Tunnel?

8. To what extent will the cost of electrical power for the deep bore tunnel in this new corridor, versus the power needs for a new or refurbished viaduct, including its associated Battery Street Tunnel, inhibit annual general maintenance and construction services on other high value state highways in other parts of the state?
9. When purchasing the below surface easements below privately owned property, for the tunnel subsurface right-of-way along this new corridor, how was the price of the publicly owned below surface tunnel right-of-way established?
10. To what extent will the publicly owned below surface tunnel right-of-way price be used by the City of Seattle to offset its utility relocation costs?
11. When preparing the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, a series of substandard geometric design changes were requested from FHWA, at that time limited to:
  - Design Deviation Number 1, SR 99 Shoulder Width (Inside and Outside)
  - Design Deviation Number 2, SR 99 Left Off/On-Ramps
  - Design Deviation Number 3, SR 99 Length of GradeHowever, the Draft Conceptual Design now shows the original 12-foot wide traffic lanes being reduced to 11 feet and the overhead clearance in the tunnel at 15 feet. According to the current *Design Manual*, page 720-4 the overhead clearance is 16.5 feet. Have the reduced lane widths and overhead clearances been approved by FHWA?
12. The Port of Seattle is providing \$300 million to this project, yet its primary land based cargoes arrive by truck at many of its terminals. How does a reduced traffic lane width and reduced overhead clearance constitute an improvement valued at \$300 million versus that which is currently available with the Alaskan Way Viaduct along its current right-of-way?
13. When considering the Port of Seattle and its involvement in a substandard new corridor, how was the \$300 million share for its participation derived?
14. When considering the substandard roadway geometry of the deep bore tunnel, geometrics that fail to meet the adopted highway safety standards, it is important to recall a few fatal accidents that have taken place this very year, 2010. They include:
  - January 10<sup>th</sup>, 2010 @ 5:30 p.m., a fatal accident on SR 18 caused entirely by the narrow shoulder and a disabled Dodge Neon struck by a motorcycle:
  - January 20<sup>th</sup>, 2010, an evening peak hour collision on the Alex Fraser Bridge in Vancouver B.C. involving a disabled car in the northbound curb lane struck by a flatbed commercial vehicle, which, in turn, flipped it over causing it to strike a third vehicle. The resulting fire was so intense that the driver of the third vehicle, who was killed, could not be identified. The fire was so strong that the entire bridge had to be repaired and inspected before it could open to traffic.
  - March 24, 2010, an early morning accident on SR 167 involving an automobile striking the rear end of a parked semi, again due to a narrow shoulder.
  - March 29, 2010, 2:00 p.m. involving an automobile striking the rear of a parked car on the shoulder of I-5 that was being refueled from a gallon can by the driver.

- With four fatal accidents in three months involving drivers parked on narrow shoulders, what would have happened if any of these had occurred in the Alaskan Way Deep Bore tunnel?
15. With the Alex Fraser Bridge accident involving a fire and its attendant closure for inspection and repair for nearly one full day, what would be the economic loss if that kind of accident were to occur in the tunnel?
  16. In 2005 the importance of wide shoulders was discussed in a research paper entitled *Cross-sectional Accident Models on Flemish Motorways Based on Infrastructural Design* (Frank Van Geirt & Erik Nuyts, Provincial College of Limburg, Belgium.) Wider shoulders were found to be statistically significant with respect to lower accident frequency. What are the economic consequences of substandard shoulder designs in the tunnel along this new corridor?
  17. The most recent research published in China, entitled *Characteristics of Traffic Accidents in Chinese Freeway Tunnels*, Chang'an University, China, 2008, looked at four tunnels ranging in length from 0.12 to 1.8 miles. In two years (2003, 2004) there were 134 accidents that included 6 fatalities, 32 injuries and 96-property damage only types. Freeway tunnels are assuredly dangerous places, the data suggests, even in tunnels shorter than the proposed Alaskan way Viaduct replacement tunnel. Indeed, is not the Battery Street Tunnel on the State's *High Hazard List*? Given that research and the above comments in item 14, what is the societal cost of a deep bore tunnel, what assumptions may be used, how were they defined, and how was that cost calculated?
  18. For the above noted Alaskan Way Viaduct Replacement Project, Draft Conceptual Design, complete with narrow substandard shoulders, non-standard lane widths, it may be opportune to recall the WSDOT memorandum dated February 13, 2007 addressed to Douglas MacDonald, Secretary of Transportation, over the signatures of David Dye, P.E., Urban Corridors Office Administrator, Ronald Paananen, P.E., Project Director, SR 99 Alaskan Way Viaduct Replacement, John Milton, PhD., P.E., Project Director, SR 520 Bridge Replacement, and Mark Bandy, P.E., Urban Corridors Office Traffic Engineer, who all recommended that the city of Seattle's then called surface tunnel hybrid proposal "... not be advanced for further study." Its shoulders were too narrow, among other problems noted by WSDOT engineers. What justification exists for the design now being proposed given this previous engineering opinion by WSDOT key staff engineers?
  19. Setting aside the negligence issues presented by permitting a reduction in shoulder width in a long tunnel, the next issue concerning narrow shoulders must focus on capacity reduction. As long ago as 1965 it has been documented that the reduction of shoulder width from, say, 6 feet to 2 feet will lead to a reduction in flow rates of at least 17 percent. (Highway Research Board *Special Report 87* Table 5.2, *Effective Roadway Width Due to Restricted Lateral Clearances Under Uninterrupted Flow Conditions*.) Given narrow shoulders, among other elements, what is the capacity of the deep bore tunnel along this corridor and how would that capacity compare with a refurbished or rebuilt viaduct along the existing Alaskan Way corridor?
  20. The concept of design negligence should be uppermost in the mind of the corridor-hearing examiner. In light of the above noted safety issues, seemingly ignored by WSDOT, the ethical and professional concerns for public safety

mandated by RCW 18.43.010 "... to safeguard life, health, and public property, and to promote the public welfare ..." should be addressed. Where are they in the current concept for this corridor?

21. Current designs for the lower, northbound roadway in the deep bore tunnel on this new corridor show a width of 6 feet on the left side and 2 feet on the right. The *Design Manual*, page 1140-9 states, "Shoulders on the left between 4 feet and 8 feet wide are less desirable. A shoulder in this width range might appear to a driver to be wide enough to stop out of the through traffic when it is not. This concern is repeated in the *AASHTO Policy on Geometric Design of Highways and Streets*, 2001 edition, page 459, where it states, "Shoulder space on the left side ... is not intended to serve the same purpose as the right shoulder. The shoulder on the right, through customary use ... is accepted by all drivers as a suitable refuge space for stops." It is remarkable that WSDOT is yet again, on this corridor, deviating from current, adopted standard engineering practice. Consequently, this leads to an obvious question. In terms of highway safety, is not a new or refurbished viaduct on the original corridor the optimum choice when life safety issues are under consideration?
22. Ignoring the right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and limiting the focus on only life-safety issues alone, what is the long term cost over 50 years, for example, of the new corridor and its deep bore tunnel versus a refurbished or rebuilt viaduct on a corridor that is already owned and fully amortized?
23. From question 22, then, what is the societal cost for the new facility in the new corridor when right-of-way costs, the construction costs, the annual operating costs (see question 6 above) and life-safety costs are all considered? Stated differently, when will there be a road user benefit analysis (RUBA) conducted in accordance with adopted standards, that considers the new deep bore tunnel in the new corridor versus the existing corridor with either (1) a refurbished AWW or (2) a new AWW?

In closing, I again object to the corridor hearing's validity and legitimacy in this matter, I am accusing WSDOT and the Federal Highway Administration of acting in an arbitrary and capricious manner, engaging in a high degree of subterfuge, and in general in bad faith with the public.

I also believe it is fair to say that when the governor and the legislature, obviously very poorly advised by the secretary of transportation and her senior staff, rushed into this new corridor and its new deep bore tunnel facility, no true societal cost assessment was made on what they imagined was some form of grand urban waterfront renewal. The time is now for that comparison to be made. At the very least, life safety issues of the new corridor and its tunnel versus a refurbished or rebuilt viaduct on the old corridor must be properly assessed, at a minimum.

Sincerely,

Elizabeth A. Campbell  
3826 24<sup>th</sup> Ave W  
Seattle, WA 98199

Campbell response 2

Dear Ms. Campbell,

Thank you for attending the April 22, 2010, corridor hearing for our proposed change to SR 99 in downtown Seattle from the Alaskan Way Viaduct along the waterfront. The purpose of the corridor hearing is for WSDOT to share with the public all of the routes under consideration when a highway location may be changed, and to accept feedback regarding the available choices. This process of accepting comments helps to inform the WSDOT decision-making process.

Rather than respond to each of the issues you have raised in your letter one by one, I thought it would be more expeditious to respond in general and offer to meet with you to discuss your detailed questions at a later date.

There are two main routes under consideration for SR 99 through downtown Seattle: along the waterfront and through the existing Battery Street Tunnel, and under the central business district with a bored tunnel. Both of these routes come with trade-offs that will be analyzed in a Supplemental Draft Environmental Impact Statement (SDEIS) for the project. A public review of the SDEIS and decision making on a preferred alternative are scheduled for later this year.

In your letter you allege many potential problems with the bored tunnel alternative related primarily to traffic safety and roadway geometry, operational costs, and traffic capacity. I would like to respond to a few of those issues here, but I think it would be best if we meet to discuss this in more detail.

First off, public and traffic safety is a top priority of WSDOT. This is why the state is pursuing a replacement of the seismically vulnerable viaduct as quickly as possible. If a moderate earthquake were to strike Seattle, the viaduct would likely collapse either partially or entirely due to structural and foundation deficiencies. We want to take the viaduct down on our own terms rather than leave it to chance, so that the travelling public will be safe. In addition, the existing viaduct and Battery Street Tunnel do not meet current design guidelines, and several locations within the corridor are known to experience more accidents than other roadways. Rebuilding the viaduct in its current location would solve some of these problems but would not straighten out the sharp curves at the north and south ends of the Battery Street Tunnel. A bored tunnel would provide an opportunity to remove the sharp curves from the alignment and smooth out the route through downtown.

It is true that an elevated structure solution would be cheaper to operate than a tunnel. Tunnels require more electricity due to the lighting, ventilation and other systems that require power. We would be happy to provide you with a summary of expected operational costs for each alternative when we meet with you.

Regarding traffic operations, the travel times and other metrics describing how traffic would move will be described in the SDEIS. Preliminary indications are that traffic would operate acceptably with any of the alternatives under consideration. Trip patterns would change in many cases due to the changes in ramp locations.

Thank you for your participation in the corridor hearing process. I look forward to meeting with you.

Regards,

Alec Williamson

Campbell response 2

WSDOT Engineering Manager  
Alaskan Way Viaduct and Seawall Replacement Program