

## VandenBerghe, Alissa (Consultant)

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**From:** Bob Donegan [bobd@keepclam.com]  
**Sent:** Tuesday, December 09, 2008 5:48 PM  
**To:** 'Renee Roline'; Agnew, Bruce; Dye, Dave; Alaskan Way Viaduct; 'Grace Crunican'; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; 'Tayloe Washburn'; 'David Freiboth'; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; mahlonc@bumgardner.biz; jim@ohalloran.cc; 'Jeff Altman'; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; 'Peter Philips'; Parsons, Jim; 'John Coney'; 'Kathy Fletcher'; 'Rob Johnson'; sranf@Mariners.org; Powers, Bob; chuck.ayers@cascadebicycleclub.org; 'Carol Binder'; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com; Judd, Ron; 'Mike Wussow'  
**Cc:** Hammond, Paula; 'Richard Prust'; 'Vladimir Khazak'; 'Kern Jacobson (MacCap Advisors)'; gerhard@dr-sauer.com; 'Richard J. Robbins'; 'Don Stark'; 'Harvey W. Parker'; rspage@hntb.com  
**Subject:** RE: Letter to Project Team and Stakeholders from leading tunnel experts

Thanks for your efforts here to find out if the deep bore is affordable or not. At last night's Stakeholder meeting 10 of the 17 stakeholders indicated some interest in Tayloe's Over and Under Hybrid option, but asked two consistent questions about the cost of the tunnel and the length of time it took to build it (or them).

Rather than doing this by e-mail, can we convene the project team's experts with the outside experts in one room, with all charts, drawings, research, estimates, and do it face to face rather than by e-mail? David very successfully convened the internal and external retrofit experts and did the same thing. All of these tunneling experts know each other, have worked together and since they are engineers and not politicians, are unafraid of arguing bluntly about what works and what doesn't.

I would be glad to join if I can help in any way. If I can't help, I'd be glad to bring chowder.

Bob  
All Viaduct, All the Time

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**From:** Renee Roline [mailto:reneer@discovery.org]  
**Sent:** Tuesday, December 09, 2008 5:22 PM  
**To:** Bruce Agnew; David Dye; Alaskan Way Viaduct; Grace Crunican; harold.taniguchi@metrokc.gov; Paananen, Ron; ron.posthuma@metrokc.gov; sextonr@wellsfargo.com; Tayloe Washburn; Bob Donegan; David Freiboth; warren@ballardoil.com; pehrsonj@comcast.net; bayouwonder@comcast.net; bregards@speakeasy.net; mahlonc@bumgardner.biz; jim@ohalloran.cc; Jeff Altman; mpmccumber@comcast.net; todd.vogel@nuladvisers.org; cary@peopleswaterfront.org; genensusan@comcast.net; vlad@voka.us; donnewby@msn.com; Peter Philips; Parsons, Jim; John Coney; Kathy Fletcher; Rob Johnson; sranf@Mariners.org; Powers, Bob; chuck.ayers@cascadebicycleclub.org; Carol Binder; erichardson@seedseattle.org; sjtaoka@yahoo.com; mike.obrien@cascade.sierraclub.org; JCODL@aol.com; Ron Judd; Mike Wussow  
**Cc:** Paula Hammond; Richard Prust; Vladimir Khazak; Kern Jacobson (MacCap Advisors); gerhard@dr-sauer.com; Richard J. Robbins; Don Stark; Harvey W. Parker; rspage@hntb.com  
**Subject:** Re: Letter to Project Team and Stakeholders from leading tunnel experts

David,

Before yesterday's stakeholder meeting we provided you a letter raising concerns about the cost estimates for the deep bored tunnel signed by a group of tunneling experts. You responded with questions outlined below. Attached is the response from the experts I received today. I would be happy to arrange a meeting with them and the project team to go over the cost issues in greater detail. Our belief is that the deep bored tunnel should proceed for further analysis based on the issues raised by this group.

If anyone on this email has not received a copy of the original letter raising four concerns regarding the cost estimates, please contact me and I will provide you with the letter and background information.

Thank you,

Bruce Agnew  
206-228-4011

On 12/8/08 4:50 PM, "Bruce Agnew" <[bagnew@discovery.org](mailto:bagnew@discovery.org)> wrote:

Thanks, David for such a prompt response. I will ask the team of tunneling experts to respond in detail to all the issues you raised as quickly as possible.

Bruce Agnew  
Cascadia Center

On 12/8/08 4:44 PM, "Dye, Dave" <[DyeD@wsdot.wa.gov](mailto:DyeD@wsdot.wa.gov)> wrote:

Bruce - Thanks for providing the attached information...it took a lot of work to assemble and I think it will be helpful for people interested in this conversation.

I do have some questions, though. First, the cost information states that the costs are not adjusted for inflation...this is a potential problem. (Are the numbers reported on page 11 actual project costs regardless of year or are they all normalized to 2008?) If it's the latter, it's probably not that big a deal. If not, it is. The department (and other public works agencies) have seen (until just recently) constant upwards pressure on all the indices related to construction materials, equipment and labor. Did you know that between 2003 and 2008 there was the same level of increase in these indices as there was the entire 13 year period prior? (Something on the order of a 50% increase.) This means that project costs reported on the attached table that occurred just 5 years ago could be significantly higher today. Of course, the ability to accurately predict future increases is another matter and it is important to note that WSDOT has narrowed the range of inflation applied to these estimates to better match today's economic situation. While there is substantial debate about the rate of inflation over the next several years, not many are predicting substantial deflation. Do you have other information?

Another question is what is and is not included in the cost estimates reported on the attached charts? Are they all inclusive, with things like utilities, roadways, and portals and portal structures and ventilation facilities etc. or are they contract prices for the tunnel boring only? My experience in project estimate cost comparisons says there is no real standard practice in that regard, and again, inclusive "central waterfront" cost estimates might be substantially different than tunnel boring-only costs. We really need to get that sorted out for our "apples-to-apples" comparison.

Finally, with regard to risks, design allowances and inflation, we believe the level of contingencies is appropriate given the level of design for the project options (some are better known than others). Our assumptions were closely scrutinized by the Expert Review Panel assembled a couple of years ago and again by the independent cost review completed for the RTID work program. What would be helpful is to

hear from your experts, specifically, what they suggest for design allowance, risk, and general inflation for a project of this magnitude at this level of design. If they think we are high, I'd be very interested in the specific points of view and how we could adjust those costs.

Again, thanks for providing this information. I look forward to hearing from you.

David Dye

Deputy Secretary, Washington State Department of Transportation

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**From:** Renee Roline [<mailto:renee@discovery.org>] **On Behalf Of** Bruce Agnew

**Sent:** Monday, December 08, 2008 3:36 PM

**To:** Alaskan Way Viaduct; Grace Crunican; Dye, Dave; [harold.taniguchi@metrokc.gov](mailto:harold.taniguchi@metrokc.gov); Paananen, Ron; [ron.posthuma@metrokc.gov](mailto:ron.posthuma@metrokc.gov); [sextonr@wellsfargo.com](mailto:sextonr@wellsfargo.com); Tayloe Washburn; Bob Donegan; David Freiboth; [warren@ballardoil.com](mailto:warren@ballardoil.com); [pehrsonj@comcast.net](mailto:pehrsonj@comcast.net); [bayouwonder@comcast.net](mailto:bayouwonder@comcast.net); [bregards@speakeasy.net](mailto:bregards@speakeasy.net); [maholnc@bumgardner.biz](mailto:maholnc@bumgardner.biz); [jim@ohalloran.cc](mailto:jim@ohalloran.cc); Jeff Altman; [mpmccumber@comcast.net](mailto:mpmccumber@comcast.net); [todd.vogel@nuladvisers.org](mailto:todd.vogel@nuladvisers.org); [cary@peopleswaterfront.org](mailto:cary@peopleswaterfront.org); [genensusan@comcast.net](mailto:genensusan@comcast.net); [vlad@voka.us](mailto:vlad@voka.us); [donnewby@msn.com](mailto:donnewby@msn.com); Peter Philips; Parsons, Jim; John Coney; Kathy Fletcher; Rob Johnson; [sranf@Mariners.org](mailto:sranf@Mariners.org); Powers, Bob; Renee Roline; [chuck.ayers@cascadebicycleclub.org](mailto:chuck.ayers@cascadebicycleclub.org); [local19pres@Qwest.net](mailto:local19pres@Qwest.net); Carol Binder; [erichardson@seedseattle.org](mailto:erichardson@seedseattle.org); [sjtaoka@yahoo.com](mailto:sjtaoka@yahoo.com); [mike.obrien@cascade.sierraclub.org](mailto:mike.obrien@cascade.sierraclub.org); [JCODL@aol.com](mailto:JCODL@aol.com)

**Subject:** Letter to Project Team and Stakeholders from leading tunnel experts

Dear Project Team and Stakeholders,

Enclosed you will find a letter from leading tunneling experts and their opinion on the cost estimates that have been presented regarding the bored-tunnel option (F).

Please review **page 11 of the attached power point** which shows the cost estimate provided by the project team in comparison with actual project costs from bored tunnels around the world. The Alaskan Way estimate appears to be significantly higher than any other tunnel project.

Feel free to contact us with any questions.

Thank you,

Bruce Agnew  
206-228-4011

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