## VandenBerghe, Alissa (Consultant)

From: Claus, Emily (Consultant)

**Sent:** Tuesday, March 10, 2009 3:12 PM

To: Williamson, Alec Subject: RE: Bored Tunnel

Follow Up Flag: Follow up Flag Status: Red

## Alec -

To follow-up to our earlier conversation, we'd like to draft a response and in the response to some or all of his initial questions offer to meet him. We just want to close it out with Paula and the Governor's office in writing and then if he also wants a meeting that's fine.

Thanks again for your help with this, Emily

From: Williamson, Alec

Sent: Tuesday, March 10, 2009 10:58 AM

To: Claus, Emily (Consultant)
Cc: Clark, Gordon T. (Consultant)
Subject: RE: Bored Tunnel

Emily- I will get you some responses- what is your deadline?

Thanks, Alec

From: Claus, Emily (Consultant)

Sent: Tuesday, March 10, 2009 10:37 AM

To: Williamson, Alec

**Cc:** Clark, Gordon T. (Consultant) **Subject:** FW: Bored Tunnel

## Alec -

We need to draft a response to this gentleman and he brings up a lot of technical points that we need to counter. Would it be possible to work with you or someone on your team to get these addressed? Please let me know.

Thank you, Emily

From: Nelson Still [mailto:stillknotty@yahoo.com] Sent: Monday, February 23, 2009 3:48 PM

To: Alaskan Way Viaduct Subject: Bored Tunnel

Attention KaDeena Lenz

## Dear Madam:

Further to my previous letter dated 16 January 2009 regarding the building of a tunnel system to replace the Alaskan Way viaduct I wish to make some further points as follows:

- 1) A tunnel boring machine of 36' diameter would be + 40% cheaper than the 54' machine. The smaller machine is probably available second hand and also has a better re-sale value.
- 2) Even if one tunnel was closed for some reason the other tunnel could still service traffic flow north and south.
- 3) The smaller bore tunnel would be structurally stronger and could withstand seismic disturbance better than the larger tunnel. Whichever design is used a gel should be pumped into the surrounding strata for added protection from water penetration or seismic disturbance.
- 4) The tunnels would have an incline that would allow any water (example flooding) to flow in the desired direction and then pumped out. The highest elevation would face the prevailing winds and this would allow exhaust gases in the tunnel dissipate quicker.
- 5) In the twin tunnel system, only the road deck would require concrete and this would be a substantial saving. The sidewalls and the headwall would only require fireproofing.
- 6) A good audio system and video system would be required so that drivers and passengers could be advised on any problem and what to do.
- 7) Drivers would have to know in the event of an evacuation that they must switch off, leave the keys in the ignition, doors unlocked and move quickly to the safety area (probably the adjacent tunnel).
- 8) Fire protection of the actual tunnel lining (concrete segments) must be very carefully considered. Damage control from terrorist action must also be considered.
- 9) Traffic flow would be both lanes going south in tunnel #1 and both lanes going north in tunnel #2. Alternatively traffic in both tunnels could have one lane going north and one lane going south which means that in the event of an emergency (example fire) the tunnel could be cleared very quickly,
- 10) The alternative method as described in 9) would allow traffic in one lane to do a u-turn and exit the tunnel quickly.
- 11) Fire hoses and phones every 200 yards which could be used by drivers in an emergency.
- 12) The twin tunnel system would allow drivers and passengers to exit from one tunnel to the other for safety reasons. The safety of persons using the tunnels is of the utmost importance. It has to be top priority.

Sincerely,

Nelson R Still 23800 SE Tiger Mountain Road #29 Issaquah WA98027 425 635 8715