From: Grotefendt, Amy (Consultant)

Sent: Friday, January 30, 2009 4:24 PM

To: Paananen, Ron

Cc: White, John; Van Ness, Kristy (Consultant)

Subject: FW: Escape and ventilation buildings

Attachments: spc.gif

Ron -- Here is the proposed response...sorry for the delay.

John,

My apologies for the delay in responding to you. The design of the tunnel is in the very early stages. This means that we don't yet have specific information about the number and location of ventiliation structures and emergency exits. Certainly safety during operation and during emergencies will be given the highest priority. The configuration and design will be in accordance with the most recent guidelines and requirements such as the National Fire Protection Association (NFPA 502), WSDOT, FHWA standards, the requirements of Seattle's fire marshals, and lessons learned nationally, internationally, as well as recent thinking and lessons learned on the Mt. Baker Ridge tunnel here in Seattle.

Any more detailed information at this time depends on the specifications of the tunnel ventaliation system and modeling of how air quality and flow can best be managed in the tunnel. We also are considering the best options for ventilating the tunnel in the dense urban and residential environment of downtown Seattle.

We are also working with the city and county on the best way to involve the downtown neighborhoods in the design of the portals and other tunnel elements. We know regular involvement in the process will result in a better design that balances the community's interests with operating the tunnel.

We will be in touch in the next month to talk with you about our public involvement plans as well as our latest thinking on ventilation and emergency access. In the meantime, if you have any questions please contact me at 206-464-1221.

Ron

From: John Pehrson **To**: Paananen, Ron

Sent: Tue Jan 13 14:45:51 2009

Subject: Escape and ventilation buildings

Ron,

I'm assuming the deep bored single tunnel will require one or more personnel escape paths and ventilation buildings. Do you know about where these need to be located? What is the general size and environmental impact?

John Pehrson 206-441-9913

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