## VandenBerghe, Alissa (Consultant)

From:	Robison, Jim	(Consultant)
		(Consultant)

Sent:Tuesday, February 10, 2009 8:07 AMTo:Williamson, AlecSubject:FW: SR 99 Bored tunnel - Ventilation Fire Life Safety 2009/02/04

Follow Up Flag: Follow up

Flag Status: Red

## Alec,

Here are Ian Ong's notes from the meeting with Gary English last week.

Jim

From: Robison, James [mailto:jim.robison@hatchmott.com]
Sent: Monday, February 09, 2009 4:32 PM
To: Robison, Jim (Consultant)
Subject: FW: SR 99 Bored tunnel - Ventilation Fire Life Safety 2009/02/04

From: Ong, Ian
Sent: Mon 2/9/2009 9:10 AM
To: Robison, James
Cc: Rhodes, Norman
Subject: SR 99 Bored tunnel - Ventilation Fire Life Safety 2009/02/04

Here are some of my notes from last week's meeting.

Regards

Ian Tel:310-954-1824 Cell:917-575-0804 Email:ian.ong@hatchmott.com

Consider the environment. Please don't print this e-mail unless you really need to.

Partial attendee list

Gary English (GE) - Seattle FD Russ Byrd (RB)- Seattle FD John White (JW) - WSDOT Theresa Greco - WSDOT Harry Jarnagan - HMM Jim Robison - HMM Norman Rhodes - HMM Ian Ong - HMM

Rick ? - PB

1. JW gave an intro. Tunnel will be 16.5 ft in height and freight friendly. Current diameter of bored tunnel is 54 ft. 'Flammables' are allowed. There was a discussion as to whether 'hazardous' goods would be allowed. There would be a discussion between Bob Powers and Bob Chandlers to address this?

2. GE gave his perspective. He mentioned his experience with Beacon Hill, the I-90 Retrofit/Road Reconfiguration AWV stacked tunnels and the Battery St tunnel. GE reference the applicable codes

- NFPA 502
- Municipal amended Seattle code (which prohibits combustible liquids in road tunnels)
- Fire code

In summary, GE stated that the Seattle fire code is more stringent than NFPA 502

3. GE had lunch with Gordon Park (PB? - point man with Seattle FD) to make sure that he's on same page with him.

- 4. GE hinted that there may be some changes in the next cycle of NFPA 502
  - cross passage distance may change
  - may include a discussion on exit strategies vs ventilation strategies
  - however GE does not see the fire size going up from 300 MW. For freight, it is currently 200 MW.

5. GE stated that the concept of longitudinal ventilation by providing a tenable environment downstream of the fire in a congested road tunnel may not be applicable. GE likes the 'single point exhaust' concept for road tunnels.

- 6. GE mentioned that Seattle FD want to have 'redundancy' in their life safety systems
- 7. GE would prefer that the standpipe locations coincide with the cross passage door locations.
- 8. GE stated that the current location for the TSMC (Control Center) for the Battery Street tunnel is unacceptable.

9. GE mentioned that the Sound Transit fire life safety monitoring system is unique for the rest of Seattle in that the new University Link project will have a 'proprietary' monitoring system. WSDOT are looking at an 'Owner maintained and Owner controlled' monitoring system. It was suggested that the design team talk to 'Hamid', as he's the owner. The system would need to be UL listed central station. GE suggested that the AWV tunnel have a dedicated fiber link.

10. GE mentioned that I-90 has a foam system but AWV doesn't need one. He also mentioned that the operational procedures for the I-90 tunnel have changed resulting in improved emergency response times and more fire trucks.

- 11. JW mentioned that RFPs for a Design and Build contract for the tunnel package would be issued early 2010.
- 12. NR would provide a 'Operational Strategies for Emergency Ventilation' for GE to look at.

Attention:

This e-mail and any files transmitted with it from Hatch Mott MacDonald are confidential and intended solely for use of the individual or entity to whom they are addressed. If you have received this e-mail in error please immediately notify the sender.