## VandenBerghe, Alissa (Consultant)

| ); Everett, Randy |
|-------------------|
| etchman           |
| com)'; Bandy,     |
| '; Wendi Walsh    |
| pbworld.com);     |
| Bendelius         |
|                   |
|                   |
| , Rita            |
|                   |
|                   |
|                   |

Follow Up Flag: Follow up Flag Status: Red

Attachments: F&LS Agenda\_20090423.doc



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## **Bored Tunnel Fire Life Safety Meeting**

**Date**: April 23, 2009 **Time**: 1:00 PM – 2:30 PM **Location**: 23<sup>rd</sup> Floor Large Conf Rm **Lead**: Don Phelps

Attendees: Allen, Archie; Bendelius, Art; Hawkins, Chris; Clark, Gordon T.; Conner, Bill; Everett, Randy; English, Gary; Getchman, Geoffrey; Grace, Kareem; Bandy, Mark; Phelps, Don; Byrd, Russ; Walsh, Wendi; Melvin, Bob; Williamson, Alec; Renshaw, Mark; Diemert, Lois; Lentz, Tom; Tipler, Kenneth; Conte, Rick; Vanantwerp, J Scott

**Purpose**: Review of current tunnel geometry, tunnel systems design criteria, systems space proofing, and current design update

| I   | Opening  | Don Phelps                   |
|-----|--|------------------------------|
| II  | Review of Current Tunnel Geometry                  | Gordon Clark                 |
| III | Tunnel Systems Design Criteria                     | Chris Hawkins                |
| IV  | Systems Space Proofing                             | Rich Matrisian               |
| v   | Current Design Update:<br>Lighting<br>Power Supply | Kareem Grace<br>Kareem Grace |

| Drainage           | Rich Matrisian |
|--------------------|----------------|
| Tunnel Vertilation | Chris Hawkins  |
| Fire Suppression   | Chris Hawkins  |
| Tunnel Dampers     | Chris Hawkins  |

## VI Issues To Be Resolved (Significant unresolved FLS issues compiled from last meeting)

- How to do variable message signs (VMS) and other signage factor in SR 99 Bored Tunnel traffic control and emergency evacuation.
- Consider making the tunnel roadway's right shoulder a consistent width and narrow up left shoulder for emergency vehicles.
- Working space is needed for maintenance and equipment; this may be more of a construction issue. Space planning is needed.
- Two-way communication is needed between agencies but interoperability is a problem to be addressed.
- How to get SR 99 Bored Tunnel connected to WSDOT's fiber optic system will be an issue.
- Can maintenance be performed without taking the tunnel out of commission? WSDOT needs to be able to take a system down and still operate the tunnel. This suggests the need for redundant system and equipment.
- There is a possibility for a need to provide Seattle City Light (SCL) with space to put in transmission lines. It was noted that a vault fire can be very tenacious to fight; it's another fire to fight. As a limited access facility, WSDOT may choose to not go there.
- Emergency generator sizing the generator capacity will be driven by how the tunnel is operated during a city-wide power outage. Traffic could be banned or permitted to use in restricted mode, such as not trucks.
- Construction Phase: Need a tunnel fire rescue plan/ emergency response plan specifically for the tunnel conditions while it is being constructed.
- Consider requirements for reinforcing the tunnel structure against terrorist events.

Action Item: Russ Berger is drafting requirements regarding UL listings for proprietary or central system and will send information to Mark Bandy.

Thanks! *Karen Thomas* Admin Assistant III WSDOT - AWV&SRP 206.267.6844

| From: | Diemert, Lois (Consultant) On Behalf Of Clark, Gordon T. (Consultant)                              |  |
|-------|--|--|
| Sent: | Wednesday, February 25, 2009 4:07 PM   |  |
| To:   | Allen, Archie; 'Art Bendelius ( <u>bendelius@pbworld.com)</u> '; 'Chris Hawkins'; Clark, Gordon T. |  |
|       | (Consultant); Conner, Bill (Consultant); Everett, Randy (Consultant); 'Gary English                |  |
|       | (gary.english@seattle.gov)'; 'Geoffrey Getchman (geoffrey.getchman@seattle.gov)'; 'Kareem Grace    |  |
|       | (grace@pbworld.com)'; Bandy, Mark; Phelps, Don (Consultant); 'Russ Byrd (russ.byrd@seattle.gov)';  |  |
|       | Wendi Walsh (walshwe@pbworld.com); clark@pbworld.com; Bob Melvin (melvin@pbworld.com);             |  |
|       | Williamson, Alec; Renshaw, Mark; Diemert, Lois (Consultant); Arthur Bendelius                      |  |
|       | (abendelius@agconsultantsinc.com); Lentz, Tom; Kenneth Tipler (kenneth.tipler@seattle.gov)         |  |
| Cc:   | Conte, Rick (Consultant); Vanantwerp, J Scott; Lentz, Tom; Fridman, Rita (Consultant); 'Everett,   |  |
|       | Randolph <fhwa>'</fhwa>  |  |

Subject:Fire Life Safety Meeting for SR 99 TunnelWhen:Thursday, April 23, 2009 1:00 PM-2:30 PM (GMT-08:00) Pacific Time (US & Canada).Where:Alaskan Way Viaduct Program Offices, 999 Third Ave, Suite 2300, Seattle, WA 98104, in 23 Large

This meeting will be a shorter meeting than usual.