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## A Systemic Approach to the Columbia River Crossing

The alleged need to retrofit the existing bridges seismically has not been established. If the "big one" hits, the I-5 bridges over the Columbia will be the least of our concerns. The freeway system, with its scores of overpasses, ramps, viaducts and other structures that are vulnerable to a large earthquake will become immediately dysfunctional.

While the freeway system has the I-205 Bridge as an alternate route, the rail system doesn't. The BNSF Railroad Bridge carries more freight tonnage than the freeway and is the only transcontinental north-south rail link west of the Cascades. A string of barges snaking through the "S" curve of the barge channel is far more likely than an earthquake to put the railroad bridge out of commission.

A new supplemental bridge for local traffic and public transportation, built to modern seismic standards, would provide a more useful transportation link to the local road system, which would probably be the most functional system in the event of a large earthquake.

The top priority for the Columbia River Crossing should be the replacement of the swing span on the railroad bridge, with a vertical lift span located closer to the center of the river as recommended by the Columbia River Towboat Association six years ago. The shift of the barge channel to align with this new lift span would eliminate the dangerous downstream "S" curve maneuver required by tugboats wishing to avoid bridge lifts. It would also allow more barge tows to avoid these lifts during high water conditions.

Traffic disruption would be minimal because lifts would only be required for high vessels, which comprise only a small part of total river traffic. (See *Vessel Height vs. Annual Frequency* table, page 3, U.S. Coast Guard Fact Sheet, 9-21-06)

If lifts can be kept to a minimum, no changes to the current freeway bridges are necessary. The bridges were recently painted and their lifts refurbished. If their

approach ramps are removed (see Jim Howell's proposal of Sept. 12, 2005), and a 45 MPH speed limit is posted and enforced on the freeway in the bridge influence area to mitigate line of sight issues, the existing bridges will be able to accommodate the freeway's six lane capacity safely.

This brings into question the earlier decision of the Task Force to eliminate lifts on any new bridge. You should consider the tradeoff between a low profile supplemental bridge with a lift that would operate only occasionally, and a much more expensive high bridge with approaches flying over the railroad fill in downtown Vancouver.

Conclusion: Building a low profile supplemental bridge with a lift span, in addition to retrofitting the opening of the railroad bridge, would:

- enhance navigational and railroad safety;
- accommodate freeway traffic;
- provide greater flexibility in the event of a major earthquake;
- not become a major eyesore in downtown Vancouver; and
- be far less expensive than any new high span bridge.

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