

## Construction

Adjust font size: [+](#) [-](#)

June 19, 2008

### Getting light rail to Eastside: major issues still unresolved

- *Sound Transit won't know if it can run rail on I-90 until — and unless — voters agree to pay for the \$2.8 billion East Link.*

By [MARGIE SLOVAN](#)  
Journal Staff Reporter

No one in the world has ever put light rail on a floating bridge, but if Sound Transit is going to get trains across Lake Washington to Bellevue and Redmond, it's going to have to figure out how.

East Link is at the top of Sound Transit's wish list. A faster connection between Seattle and the rapidly growing cities east of Lake Washington is crucial to the future of those cities, Eastside business leaders say.

And the Interstate 90 floating bridge is the best route for getting mass transit across the lake, according to engineering and government reports dating back decades.



Image courtesy Sound Transit [\[enlarge\]](#)

**A team of engineers hired to assess the viability of putting light rail on the I-90 bridge said design of the transition span — which connects the floating and fixed portions — should be accelerated.**

But can the I-90 bridge carry the extra weight of trains? Will stray electrical currents from the trains corrode the bridge? How will this bridge stand up in an earthquake? How do you connect the floating and the fixed portions so trains run smoothly? And how do you transform a vehicle bridge into a light-rail bridge without poking a lot of holes in it?

Sound Transit is not sure about the answers to some of these questions, and won't be sure until — and unless — voters agree to pay for East Link, which has a price tag of \$2.8 billion (2007 dollars, capital costs only).

The issues “would be addressed during final design, which we wouldn't do until we had full funding for the program,” Sound Transit public affairs director Ric Ilgenfritz told the agency's board last month.

In other words, we'll figure out how to build it once you buy it.

But that won't fly with an independent team of engineers hired by the state to assess the viability of putting light-rail on the I-90 bridge.

These engineers told the state's Joint Transportation Committee yesterday that design of the transition span — which connects the floating portion of the bridge to the fixed portion —

should be accelerated.

“We recommend it be designed as soon as possible,” said team leader Tom Ballard, a structural engineer with SC Solutions in Sunnyvale, Calif. “You have to put on a track bridge. It's never been done before.”

Sound Transit won't have the money to do that design work until voters approve East Link.

“Until Sound Transit gets voter approval, they can't take design to more than five percent,” said John Howell, who manages Sound Transit's Expert Review Panel. “We ask for approval before we have sufficient funds to get design to a place where you can get certainty about the cost.”

Sound Transit should do whatever it can to avoid drilling holes in the existing bridge deck to avoid compromising its structural integrity, the team said. It encouraged Sound Transit to experiment with gluing tracks to the deck instead.

State Rep. Judy Clibborn, D: Mercer Island, asked if that has ever been done before.

“I'm sure this type of thing has been attempted,” said structural engineer Chuck Ruth, also of SC Solutions.

With light-rail on it, the I-90 bridge would become a much more high-maintenance bridge. The team is recommending a dedicated team of engineers to take care of it.

The team also said the state should figure out what would happen if the bridge sank with trains on it.

“[A]ll stakeholders need to understand the costs associated with loss of this facility,” its preliminary report said.

Ballard, a rail structure expert, heads the independent review team. There are two experts on corrosion: Steve Nikolakakos of Russell Corrosion in Garden City, N.Y., and Ali Akbar Sohanghpurwala of Concorr in Sterling, Va. The team's floating bridge expert is J. Thomas Bringloe of Glosten Associates in Seattle.

The team will issue a final report on the bridge to the Joint Transportation Committee in September.

---

*Margie Slovan can be reached by [email](#) or by phone at (206) 622-8272.*

© Seattle Daily Journal and djc.com.