Better alternative to CRC: Third Bridge

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Submitted by:
Ron Swaren
October 6, 2015 1 of 2 pages

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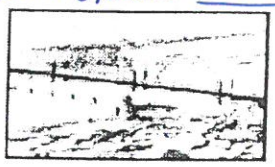

by Ron Swaren

The "Third Bridge" from Portland to Vancouver most commonly refers to a concept also called "The Western Arterial." It is also called the "Port-to-Port" bridge, and was analyzed as an alternative by the Southwest Washington Regional Transportation Council in 1999. The Western Arterial was originally considered by the CRC project, but was dismissed because it was outside of the "(I-5) bridge influence area."

Well, no...really?

Now that the CRC project is (hopefully) dead, we should be able to get to realistic solutions. The big economic news in the area is that the Silicon Forest is gearing up for its next big wave of expansion. And with it will come increasing traffic congestion on the I-5. However, since the construction of the Fremont Bridge and I-405 back in the 1970's the contribution of traffic on to Interstate 5 from the western parts of the Portland Metropolitan area has been a factor planners have been slow to reckon with. And the burst of growth in high tech industries in the Beaverton Hillsboro area has been the largest contributing factor to I-5 congestion and now there will be more.

Here's a popular concept of what the connections of the Western Arterial route could be, and please note that this is not a canyon like Interstate freeway. This has also received general, popular recognition as an effective alternative:

Start in Vancouver, WA at the I-5 and 39th Street exit. Conveniently, Washington State Route 500 also ties in here. Go west (possibly underground) to Fruit Valley Rd. and head south. This eventually ties in to an extension of Mill Plain Blvd. and wends its way on Thompson Ave. to the banks of the Columbia. Cross just west of the BNSF bridge and connect in near North Portland Rd. This connects Vancouver to the Rivergate area and the loop of N. Marine Drive and N. Columbia Boulevard. Head across the Willamette at the west end of this loop from N. Ramsey Blvd.

Connect to Hwy 30 with an interchange, and then head NW near the Newberry Rd. area. Connect to NW Kaiser Rd. and then to NW Cornelius Pass Rd. and then on to US 26. This puts it in the heart of planned expansion in this industrial area. There probably is a need for a tunnel under Skyline Blvd. since it would be a steep incline to go over the summit.

This is a shortcut, as opposed to going down Interstate 5 and then out US 26, and should appeal to both mass transit and to alternative transportation (i.e. cyclists). What deters many would be transit users are multiple transfers and lengthy rides. Shortcuts work to every traveler's advantage. And, for the most part, it makes use of existing Rights of Way. This can be a standard four lane highway—there are also concepts for an additional east side crossing, which can also alleviate some of the general interstate traffic burden. This route will also go close to METRO's West Side Trail system.

By using metal arch bridges fabricated on land, as was the Fremont, costs can be controlled. The CRC project with its concrete structure and risky, over the water construction, had a combination of expensive methods. Admittedly the Western Arterial would not be cheap, but it serves an area that presently does not have good access. It also allows for a large "travel shed" since numerous routes in both Washington and Oregon can intersect it, providing an alternative for traffic which is now confined to I-5. It also allows for an express transit bus system via the major highways. Supplemental routes (such as NW Cornelius Pass Rd) can have very limited, modest improvements. Vancouver has ample room for growth in its downtown area and there are three major industrial areas which can be served by the Arterial. Oregon also welcomes the tax dollars that Washington residents bring in.

(Ron is a resident of the Portland area, has been involved in transportation issues and participates in the UN World Urban Forum. As a commercial journeyman carpenter he has built some of the major structures in the Portland area and believes that costs on public works need to be dramatically reduced.)

3300 feet 4 Lanes

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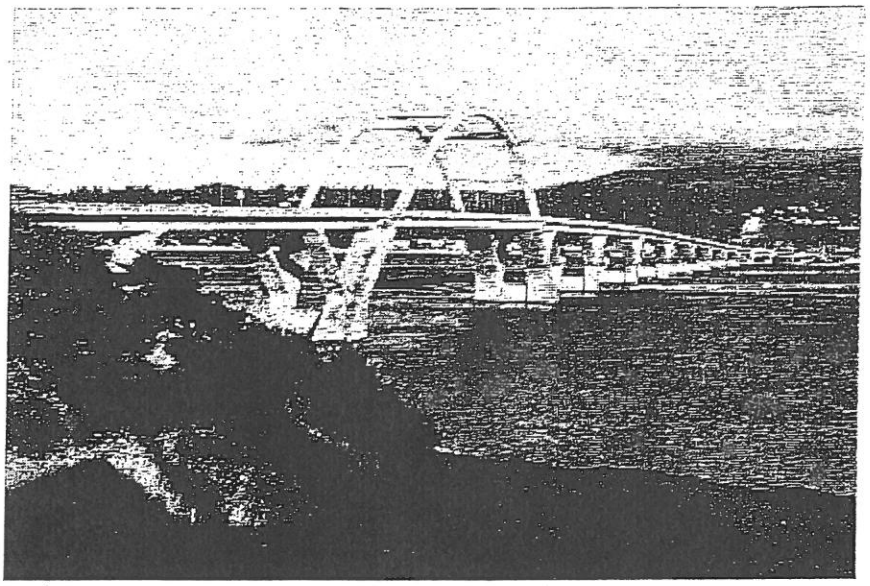
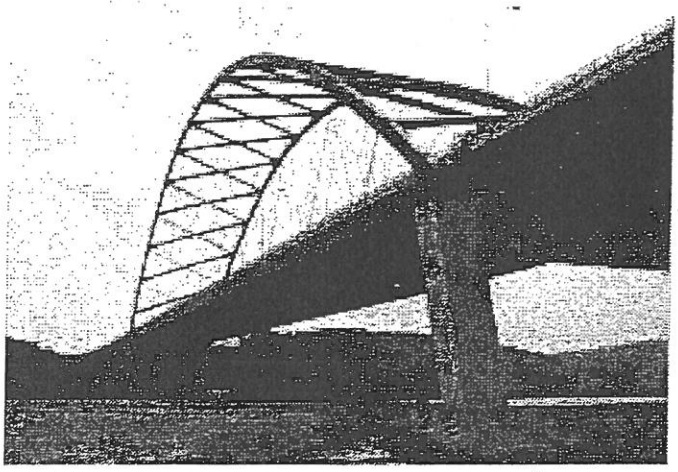


Alsea Bay
Waldport Oregon
$43 mil. 1992

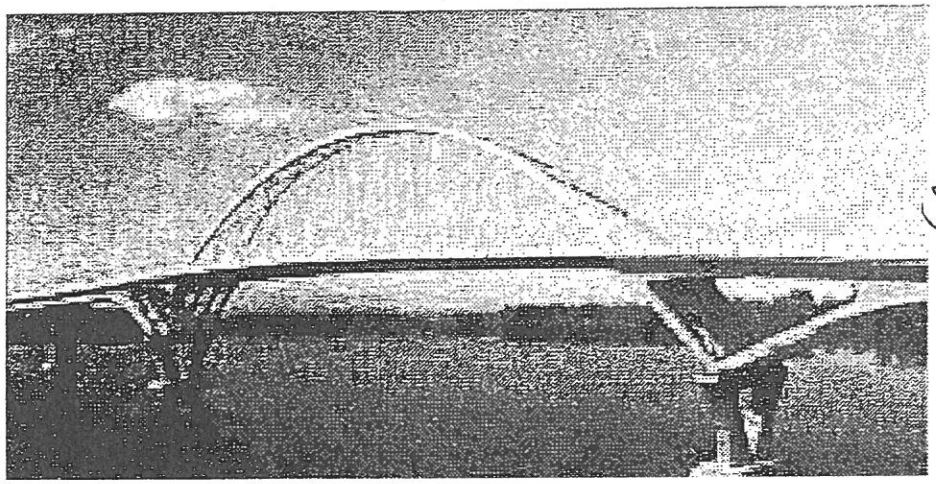
4000 ft. 4 lanes

Blenerhasset Isl.
Cincinatti. Ohio
$120 mil. 2008



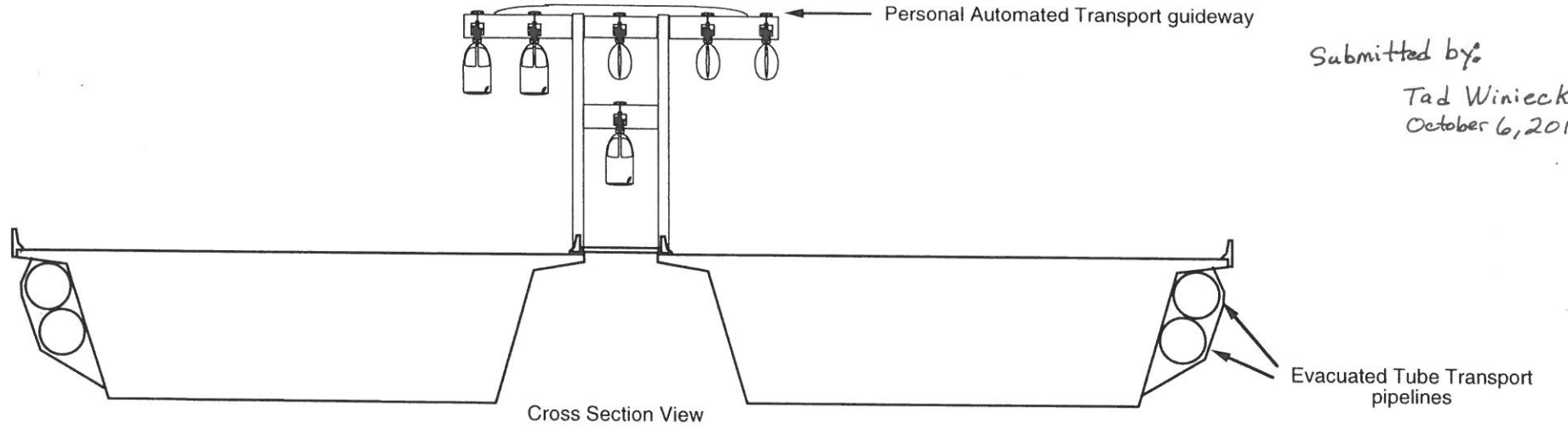
2200 ft. 2 lanes

Lake Champlain
New York
$75 million
2011

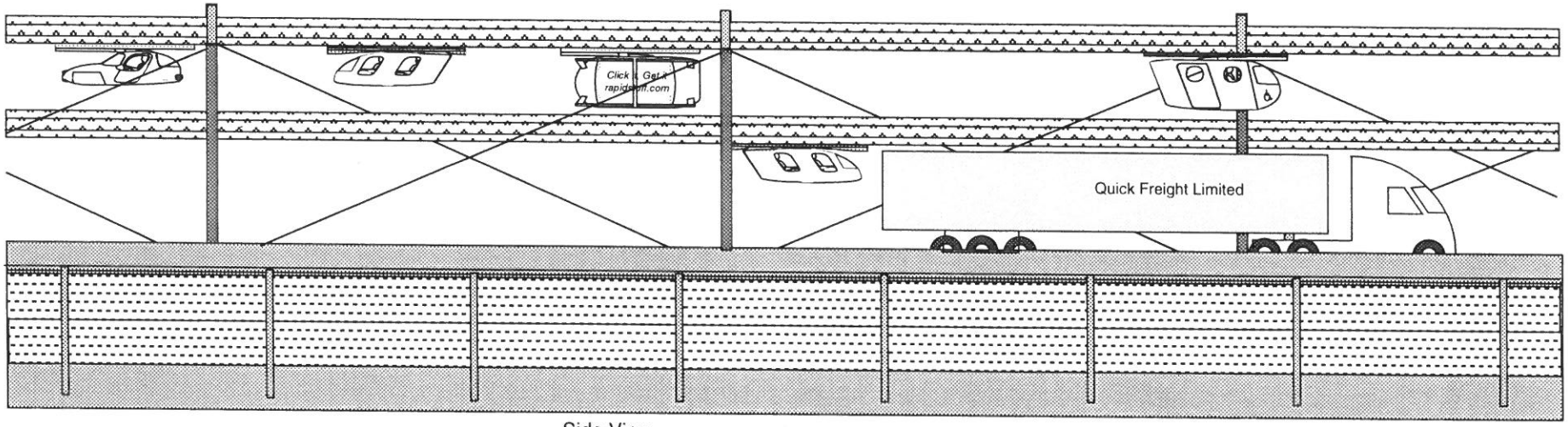


Personal Automated Transport on Glen Jackson I-205 Bridge

Submitted by:
Tad Winiecki
October 6, 2015



Cross Section View



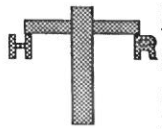
Side View

This is a second draft of cross-section and side view drawings showing suspended personal automated transport (PAT) guideway with six tracks between the east and west spans above the pedestrian/bikeway and four Evacuated Tube Transport™ (ETT™) vacuum pipelines on the sides of the spans.
Nominal speed for the one-ton gross weight PAT vehicles is expected to be 100 mph but may have to be reduced for passenger comfort if bridge motion or cross winds are too great.
Nominal speed for the six-passenger ETT vehicles is limited to 250 mph by the radius of the curved bridge but may be less if bridge motion is too great.
These additions would more than double the passenger carrying capacity of the Glen Jackson bridge, but the freight capacity wouid not be increased as much.

Basic bridge cross section based on "HCT on I-205 Bridge" PowerPoint presentation by Jack Gonsalves, P.E., on July 25, 2007.

For more information on personal automated transport and Evacuated Tube Transport™ see http://higherway.us, http://www.et3.com and http://faculty.washington.edu/jbs/itrans.

Comments and suggestions are welcome.
Contact Tad Winiecki at winiecki@pacifier.com.



I-205 Glen Jackson bridge
Tad Winiecki
Higherway Transport Research
Suburb to suburb quicker
http://higherway.us
October 27. 2008