

**From:** Tad Winiecki <winiecki@pacifier.com>  
**Subject:** DEIS comments  
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**To:** Columbia River Crossing <feedback@columbiarivercrossing.org>  
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 6 Attachments, 1.2 MB



*Emailed  
the website  
yesterday.  
LKR*

The DEIS seems to be complete and comprehensive but there is a whole transport class that has been neglected. I can find no mention of small personal transport modes; for example motorcycles, motorscooters, mopeds, Segways, neighborhood electric vehicles, battery-powered wheelchairs and scooters.

If one studies current trends in transport, automation and emerging technologies it is evident that transport is becoming more automated; batteries with increased energy density are becoming available; and there is a trend to electric power as the price of oil increases. If one doesn't have to pay a driver smaller vehicles are more economical than larger vehicles for most trips people take in a metro area.

Except for motorcycles one wouldn't expect to find any of the small personal transport modes mentioned above on I-5. However, there are only three bridges between Portland and Vancouver, I-5, I-205 and the railroad bridge, so it easy to foresee a future need to accommodate these transport modes.

I have looked at the different concepts for replacement bridge designs. It seems to me that small personal transport modes, bicyclists and pedestrians could be accommodated on the lower level of a stacked bridge design with little added cost. They wouldn't have to be in a pure tunnel as described in the DEIS; holes could be designed into the bridge to allow for ventilation, some natural sunlight, and scenic views for the pedestrians. The bridge users on the lower level would be mostly protected from the weather and the road surfaces wouldn't need to have snow and ice removed from them in winter. Other future transport modes include personal automated transport on monorail guideways and evacuated tubes. If space for these is provided on the lower levels of new bridges plus rights of way for on and offramps they could be added later at relatively low cost.

Attached are some examples of small personal transport modes (Segway, handicapped scooter, electric scooter, Bug-E neighborhood electric vehicle). Most of these are too fast for pedestrian lanes but too slow to mix with cars, buses and trucks on I-5.







Examples of personal automated transport are shown below - ULTra and Evacuated Tube Transport





God bless you.

Tad Winiecki

Higherway Transport Research

"Suburb to suburb quicker"

<http://higherway.us>

Evacuated Tube Transport licensee

<http://www.et3.com>