

**Testimony of John A. Charles, Jr.  
President, Cascade Policy Institute  
Before the Joint Committee on Legislative Oversight on Columbia River Crossing**

***Regarding the Proposed Light Rail Extension to Vancouver***

*March 15, 2012*

The CRC is fundamentally a light rail project. Therefore the first task for the Oversight Committee should be to rigorously assess the ***purpose and need*** for light rail. Specifically, what transportation service will light rail provide, and how does that service compare with express bus service currently offered by CTRAN?

It is important that the comparisons be made on a side-by-side basis, not system-wide. The reason is that the cost-effectiveness of TriMet’s light rail system varies considerably by line. The Yellow line is the ***least productive MAX line*** in the entire system<sup>1</sup>, averaging only 127 boarding rides/vehicle-hour. In contrast, the most productive line (Blue) averages 166 rides/vehicle-hour.

A summary of key metrics clearly shows that light rail compares poorly:

**CRC Light Rail vs. CTRAN Express Bus**

	<b>MAX Yellow Line</b>	<b>CTRAN I-5 Express buses</b>
<b>Peak-hour travel time*</b>	36 minutes	16 minutes
<b>Total capital cost, 2012-2020**</b>	\$856-\$944 million	\$4-\$8 million
<b>% of operations cost covered by fares***</b>	47%	67%

*\*Derived from the FEIS and CTRAN published schedules.*

*\*\*Various CRC finance documents; author’s estimates for CTRAN.*

*\*\*\*Personal communication with finance staff of the respective agencies, 3/14/12.*

**Travel Speed:** The only reason to add new transit service is to make bi-state travelers better off. Light rail would make them worse off, by ***lengthening commute times by 125%***. The attached paper by transit consultant Thomas Rubin provides a more detailed analysis. This is a fatal flaw that cannot be overcome, because MAX is an all-local system, and it is competing with Express Bus service.

<sup>1</sup> TriMet FY 2012 Transit Investment Plan, P. 103

**Cost:** At roughly \$300 million/mile, this would be the most expensive transit project in Oregon history. For comparison, the Milwaukie LR project is estimated to cost \$211 million/mile while the Emerald Express BRT project in Eugene-Springfield cost \$6 million/mile.

Light rail proponents have long argued that the high capital costs of rail are offset by savings in operations cost, but that is based on *systemwide averages*. Actual numbers for CTRAN I-5 Express Buses and the Yellow MAX line suggest that there will be no operating cost savings for light rail. ***CTRAN recovers 67% of bus operating costs from passenger fares, while the Yellow MAX line collects only 47%.***

**Conclusion:** Vancouver light rail would serve no public purpose and would have extremely low ridership. The Legislative Oversight Committee should euthanize it as soon as possible.

# The Proposed CRC Light Rail Extension: Comparison of travel times between light rail and express Bus

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## Introduction

I have been asked to review the travel times for transit passenger service of the proposed extension of Tri-Met's light rail system to Vancouver, Washington with current express bus service over the same general alignment. As presented in detail following, the travel times from Washington Street and West 15<sup>th</sup> in the Vancouver central business district (CBD) to Pioneer Square in the Portland CBD are:

<b>Existing C-Tran Route 105 (scheduled):</b>	<b>16 minutes</b>
<b>Light rail, projected:</b>	<b>36 minutes</b>

The projected capital cost for light rail is ***\$856 - \$944 million***.

## Scope of Project and this Analysis

Tri-Met currently operates four light rail lines, including the Yellow Line, which runs from the Southeastern end of the Portland Transit Mall generally North to the Expo Center Station. As part of a proposed new bridge project between Portland and Vancouver, carrying I-5 over the Columbia River, an extension of the Yellow Line North into Vancouver has been proposed.

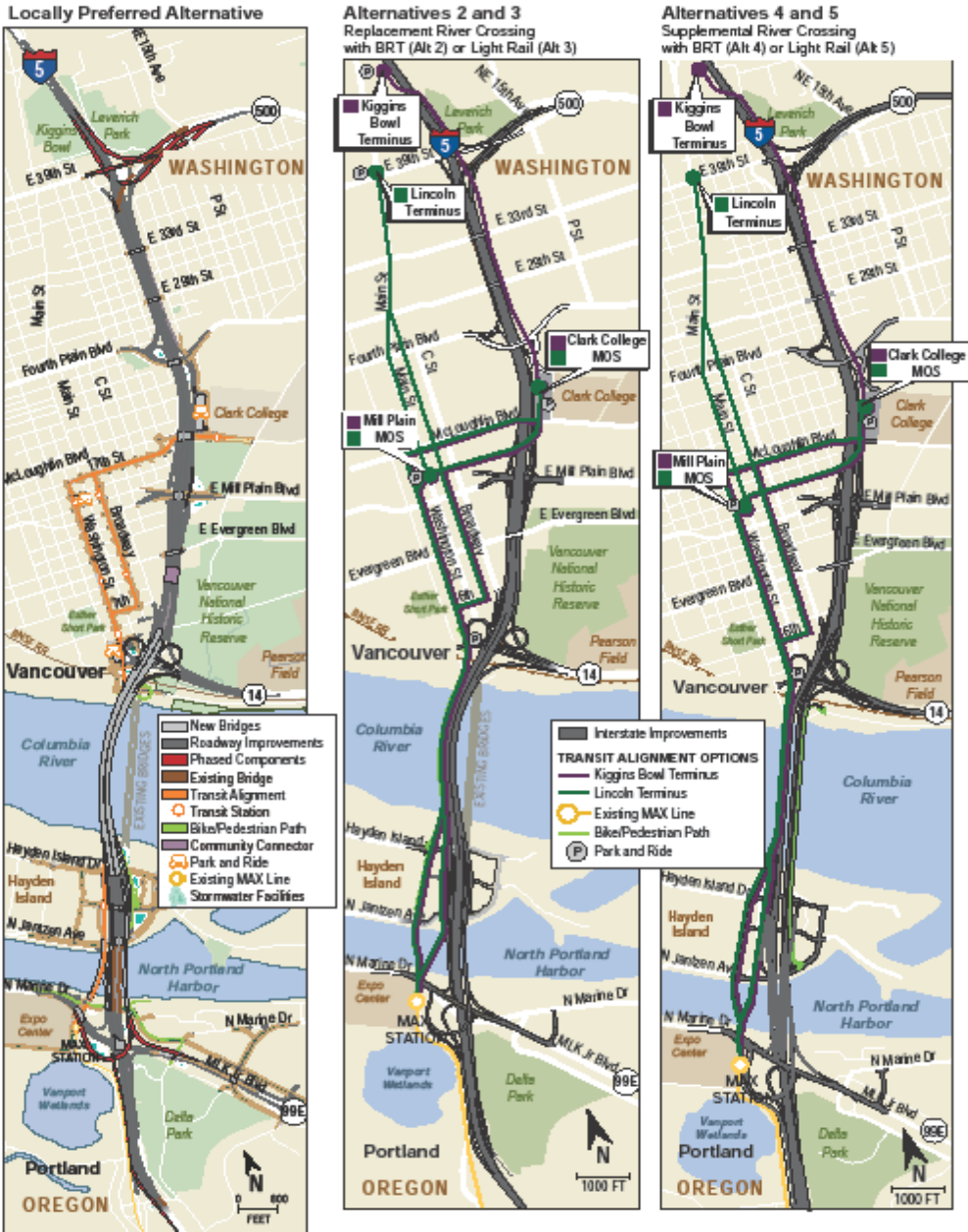
During the EIS process, various alternatives were prepared and studied, including Alternative 3, the Replacement River Crossing with Light Rail. The Locally Preferred Alternative (LPA) is a modified version of Alternative 3, as shown in the maps below<sup>2</sup>.

It appears to be reasonable to conclude that travel from the Vancouver CBD to Expo Center Station is ***not*** the primary purpose of the proposed light rail extension. In order to provide a travel time comparison that is likely more representative, I will compare the travel times from the proposed Yellow Line Washington Street Station in Vancouver to Pioneer Square in the Portland CBD, more specifically the Pioneer Place/Southwest 5th Avenue MAX Station.

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<sup>2</sup> Final Environmental Impact Statement (FEIS).

Exhibit 10  
**LPA and Alternatives Evaluated in DEIS**



The light rail Yellow Line travel time is as follows:

Washington Station-Expo Center:	6 minutes (from FEIS)
Expo Center-Pioneer Place	<u>30</u> minutes <sup>3</sup>
Total	<u>36</u> minutes

For the comparable bus service, I will use C-Tran line 105, the I-5 Express, which has a travel time, Washington & Evergreen in the Vancouver CBD to 5th Avenue & Alder in the Portland CBD, of fifteen minutes<sup>4</sup>.

The beginning and end points for these two trips are very close, but not identical. In Vancouver, the bus stop on Washington at Evergreen is five blocks, approximately one-quarter mile, South of the Washington Street Yellow Line Station at West 15<sup>th</sup> Street, and closer to Portland<sup>5</sup>.

In Portland, the light rail station is at SW Fifth Avenue and SW Yamhill Street, while the bus stop is at SW Fifth Avenue and SW Alder Street, a distance of two blocks, or approximately one-tenth of a mile<sup>6</sup>. Again, the light rail route is longer than the bus route as measured "as the crow flies."

To make up for the shorter travel distance for the bus route, approximately one-third mile in total, I will add one minute to its travel time.

Therefore, we have at the present time scheduled bus service between the Vancouver and Portland CBD's with an (adjusted) 16 minutes end-to-end travel time, which is being proposed for replacement by a light rail line extension with a travel time of 36 minutes, or 225% of the scheduled travel time of the existing bus service.

One might ask, if the light rail alternative is constructed, and the Vancouver to Portland travel time is 20 minutes longer on the new light rail line, then wouldn't most of the riders who are now using the 105 Express for that trip continue to use it? In particular, why would those who board farther North, where the line begins at the Salmon Creek Park and Ride, want to get off

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<sup>3</sup> Tri-Met, Yellow Line Schedule, [http://trimet.org/schedules/w/t1190\\_1.htm](http://trimet.org/schedules/w/t1190_1.htm)

<sup>4</sup> C-Tran, Route #105 Schedule, [http://www.c-tran.com/routes/105route/weekday\\_south%E2%80%93morning.html](http://www.c-tran.com/routes/105route/weekday_south%E2%80%93morning.html)

<sup>5</sup> Author's measurement.

<sup>6</sup> *Ibid.*

of the bus, walk some distance in mid-trip, and transfer to the Yellow Line in downtown Vancouver?

Part of the answer can be found in the FEIS, Exhibit 15, "Proposed C-Tran Bus Routes Comparison," page S-25, which states:

**"#105 I-5 Express – Route truncated in downtown Vancouver."**

As is often the case with such projects, the construction of **light rail will cannibalize superior bus service**. The good news is that C-Tran routes 134-Salmon Creek Express, and 199-99th Street Express, are **not** on the FEIS list of routes to be truncated in downtown Vancouver, so those that have been boarding further North will be able to continue their travel as they have been experiencing; that is, assuming that these lines are not changed at some later date.

From my past experience with such situations, I believe that, if the travel times referenced above prove realistic after the start-up of light rail service, the C-Tran Board of Directors is likely to face a very determined effort to retain the 105 line in service from the Vancouver CBD to the Portland CBD, or some reasonable replacement thereof; in fact, a save-the-105 movement is likely to begin long before its termination date approaches.

If the 105 or some similar service were to be kept in place, and/or if additional trips on the 134 and/or 199 were found to be required to replace the trips from the Northern park-and-ride lots taken on the 105, this would have an **adverse impact** on the system-wide operating costs and subsidies because the financial calculations in the FEIS are based on the assumption that the operation of the 105 will cease at approximately the time that light rail service commences.

## **CONCLUSION**

The Locally Preferred Alternative in the FEIS, light rail, appears to be spending a minimum of ~\$855 million to implement a transit option that will **increase the current downtown Vancouver to downtown Portland travel time from 16 to 36 minutes**. While there may be some trips that may produce slightly shorter travel times via light rail than via bus, such as to Expo Park from the Vancouver CBD, it is difficult to draw any conclusion other than the implementation of this proposal would produce an increase in total transit travel time and could also **reduce transit usage** – at very significant cost to the taxpayers.