

**Jeff Snedden**

**January 12, 2023**

**Letter to the Sound Transit Board**

The majority of Lake Forest Park citizens support mass transit and Sound Transit's overall goals. However, we are increasingly concerned about SR 522/145<sup>th</sup> BRT, specifically the construction of a 1.2-mile eastbound dedicated bus lane on HWY 522, the major thoroughfare through our small community, for three reasons.

- **Lack of a Business Case:** As taxpayers, transit riders, and supporters of mass transit, we do not believe there is business justification or an adequate return on investment sufficient to justify a capital expenditure of up to \$250mm to build a 1.2-mile dedicated eastbound bus lane in Lake Forest Park.
- **Negative Environmental Impacts:** As residents of Lake Forest Park, we believe Sound Transit should withdraw the Determination of Non-Significance issued for this project on March 23, 2021, based on the 30% design. The 60% design released on November 8, 2022, made significant changes that indicate probable and significant adverse environmental impacts in our community to our valued streams, wetlands, sensitive areas, steep slopes, landslide areas, impervious surfaces, stormwater runoff, noise pollution, and tree canopy to name a few.
- **Community Equity:** Lake Forest Park is the smallest community included in this project but bears the brunt of the impact far beyond the other communities. The roadway work here involves more than half of this project's private property/ROW acquisitions. The new bus lane brings traffic and noise pollution closer to residents than any other community, literally right into their front and backyards. Ours is the only segment with a large retaining wall, up to 16' tall, the length of 11 football fields, transforming our city gateway into a concrete wall. Traffic will be forced onto our local streets and near our schools during and after the project's completion. There is no reserved transit parking for commuters in Lake Forest Park, and there will be no parking garage until 2044.

**The Business Case: It boils down to this. How much is saving less than 2 minutes' worth?**

Sound Transit's goals for Stride BRT projects are clear: frequent, accessible, reliable, and fast bus service connections.<sup>(1)</sup> Frequent, accessible, and reliable have little to do with building a 1.2-mile dedicated eastbound bus lane here.

Fast bus service has two primary dimensions.

- Fast arrivals and departures. SR 522/145<sup>th</sup> BRT is designed for faster arrivals and departures with level boarding, off-board fare payment, multiple-door entry and exit,

double-wide bus stops, and signalized lights.<sup>(2)</sup> None of this requires the construction of a 1.2-mile dedicated eastbound bus lane in Lake Forest Park.

- Fast transit time. Fast transit time is impacted to varying degrees by the combination of all roadway improvements, not just the addition of a 1.2-mile dedicated bus lane in Lake Forest Park.

We believe the return on investment on the estimated \$250mm cost to construct the 1.2-mile eastbound dedicated bus lane in Lake Forest Park does not make financial sense for Sound Transit, taxpayers, or transit riders.

*Why? Because it does not meaningfully decrease transit times for bus riders going to or from the South Shoreline Light Rail Station and Bothell UW/Cascadia on the SR 522 bus.*

First, a dedicated westbound bus lane is already running through Lake Forest Park.

As for eastbound HWY 522, traffic backups are highly related to traffic backups on 145<sup>th</sup> during peak hours.<sup>(3)</sup> Regardless, traffic backups on this section of roadway in Lake Forest Park are concentrated over 15 hours, from 4 pm-7 pm, Monday through Friday. Outside of this 15-hour window, especially since the pandemic and work-at-home phenomenon, there are virtually no traffic backups of significance. And no traffic studies appear to have been done since 2018, 2 years before the pandemic's start.

Using a similar approach to that used in the March 2021 Appendix H Transportation Technical Memorandum<sup>(4)</sup>, current bus transit times were estimated using SR 522 published bus schedules over the current 6.5-mile 522 bus route (UW Bothell/Cascadia to Bothell Way/NE145<sup>th</sup>). Examining AM and PM weekday peak travel times shows a 4-minute longer westbound PM transit compared to the westbound transit. Specifically:

- 21 minutes at 18 MPH during the AM weekday peak hour.
- 25 minutes at 15 MPH during the PM weekday rush hours.

The PM weekday transit time has a higher overall peak hour traffic volume than its AM counterpart<sup>(5)</sup>, meaning the 4-minute difference over the 6.5-mile route is related as much, if not more, to the higher overall volume of traffic on the roadway than the lack of an eastbound dedicated bus lane in Lake Forest Park.

*If Lake Forest Park had an eastbound dedicated bus lane, how much faster could the 522 make that 1.2-mile transit?*

- No impact traveling westbound; there's already a dedicated bus lane.
- 30 seconds faster if the bus could average 16 MPH, which is one of Sound Transits' goals for transit speed once construction is completed<sup>(6)</sup>.

- 1 minute faster if the bus could average 18 MPH, the same rate as the westbound bus during peak AM weekday peak hours with a dedicated bus lane.
- 1 minute 45 seconds faster eastbound commute time if the bus could average 22 MPH, another of Sound Transits published goals for the SR 522/145<sup>th</sup> for the completed 8-mile roadway<sup>(7)</sup>.

A 2-minute shorter bus transit time that accrues from adding an eastbound dedicated bus lane in Lake Forest Park was confirmed by Sound Transit's Bernard van de Kamp at a recent meeting with Lake Forest Park residents.

*When the \$626 million project is completed, can the 522-bus average 22 MPH, Sound Transit's goal over the 8-mile transit to and from Bothell to the South Shoreline Lite Rail station? Highly unlikely. To accomplish this:*

- The average westbound speed would have to increase by 20%, from the current 18 MPH to 22 MPH: the average eastbound speed by 45%, accomplished over an 8-mile roadway with 19 stop lights, 2 stop signs, and 12 bus stations.

*How many miles of the 8-mile roadway are without a dedicated bus lane now?*

- Rerouting the 522 through downtown Bothell means no dedicated bus lanes could be built on this 1-mile stretch of the roadway.
- The roadway from 145<sup>th</sup>/Bothell Way to the South Lynnwood Lite Rail Station will not have dedicated bus lanes over this 1.5-mile stretch.

The entire route that could have dedicated bus lanes then is 5.5 miles, 11 miles both ways. Currently, on these 11 miles, nearly 80% of the available roadway already has dedicated bus lanes.

*How many transit riders would benefit from a 2-minute shorter bus commute over the 3-hour weekday PM rush hour?*

- Sound Transit's planned headway eastbound is 10 minutes or 6 times an hour, 18 times total during the 3-hour peak afternoon rush hour<sup>(8)</sup>.
- If each bus was an articulated bus seating 60 passengers and was full, and an additional 20 passengers were standing, less than 1,500 daily transit riders during the 3-hour weekday afternoon rush hour would benefit from the \$250mm less than 2-minute shorter commute in the afternoon.
- Will average daily bus boardings on the SR-522 route grow from the current 1,500 to the projected 8,900 per day in 2042<sup>(9)</sup>? Who knows. But to accomplish that by 2042 it would

take an annual compounded growth rate of 9% over the next 23 years to get to the 8,900 average daily boardings which seems more than aggressive.

*How much of the I-405 BRT and SR 522 BRT investment of \$1.8 billion over a total of 46 miles of roadway is spent building the dedicated eastbound bus lane in Lake Forest Park?*

- SR-522/145<sup>th</sup> budget is \$626mm, 34% of the \$1.8 billion
- Of the SR-522/15<sup>th</sup> BRT budget of \$626, as much as \$250mm or 40% is committed to build the 1.2-mile dedicated bus lane in Lake Forest Park.

And yet the Sound Transit staff flags significant budget risks that could quickly drive program costs up and delay project completion. Sound Transit's April 2022 Annual Program Review <sup>(10)</sup> highlights the risk of an inflationary rise in property acquisition (ROW) costs. Property acquisition costs for 2023 alone are budgeted at \$83mm <sup>(11)</sup> 50% or more of the property acquisitions are in Lake Forest Park, almost all necessitated by building the eastbound dedicated bus lane. In addition, the report, dated April 2022, was based on the 30% design, not the 60% design, and notes the project completion date (2026) was already trending toward 2027.

*What if the dedicated eastbound bus lane in Lake Forest Park was not built? Will Sound Transit still implement essential ways to deliver on the goals of transit time on SR522/145<sup>th</sup>?*

They include:

- Short dwell-time features at stations, dual-bus platform length, level boarding, off-board fare payment, and multiple-door entry and exits.
- Double-length articulated buses, signalized stop lights, BAT lanes, and bus queue jumps.
- Fewer bus stations along the route.

These collectively will likely have a far more significant impact on delivering the goals of frequent, accessible, reliable, **and fast** bus service connections than building a 1.2-mile dedicated bus lane in Lake Forest Park.

There do not appear to be any documents that estimate the potential transit time savings for building the eastbound dedicated bus lane in Lake Forest Park. Other reports and online materials examined do not provide analysis rank ordering each of the various improvements to the roadway in terms of how much they contribute to a fast bus commute relative to one another vs what the cost of the improvements is. Absent this analysis, the answer appears to be "just build it all." Put another way, without this analysis, there is no business case to determine if the 1.2 mile \$250mm dedicated bus lane that reduces eastbound PM weekday peak hour transit times by less than 2 minutes has a sufficient return on capital invested relative to other improvements to justify building it.

Add this to the impacts on Lake Forest Park on our environment and our City, and you should be able to understand our concern.

The lack of a business case alone cries out for the construction of the 1.2-mile dedicated eastbound bus lane to be reconsidered by the Sound Transit Board.

This was and is the purpose of Sound Transit's Realignment Process started in early 2020 when the agency faced an estimated \$6.5 billion affordability gap for delivering projects on their previous schedules, culminating in a plan approved in August 2021. As noted in the April 2022 Annual Program Review Report <sup>(12)</sup>, the Realignment Process "instructs staff to produce Annual Program Reviews to apprise the Board and the public of major project changes, risks, or other developments in a timely manner."

***April 2023 is three months away. Now is the time to reexamine the business case for building the 1.2-mile dedicated eastbound bus lane in Lake Forest Park.***

And, as pointed out by Roger Millar, WSDOT Secretary, and Sound Transit Board member, on February 25, 2021, in a letter <sup>(13)</sup> to Kent Keel, Chair of the Sound Transit Board, "let us use the realignment process to thoughtfully redirect funds to get the highest return on our investment."

With Sound Transit facing a \$6 billion affordability gap; with lower post-pandemic bus ridership and traffic volumes remaining 33 months after the start of the pandemic; with an inflationary economy and likely recession in 2023; and in the spirit of the Sound Transit Realignment Process, the construction of a 1.2-mile dedicated eastbound bus lane in Lake Forest Park is a *textbook example* of a project the Sound Transit Board should scrutinize to determine if the cost of building it provides the best possible return on investment among all the other options, Sounder, Link Lite Rail, and BRT.

### ***Footnotes***

- (1) [Stride S3 bus rapid transit | Project map and summary | Sound Transit](#) Stride BRT projects are clear: frequent, accessible, reliable, and fast bus service connections
- (2) March 2021 Appendix H Transportation Technical Memorandum, pg. 17 reliability improvements, including BAT lanes, transit queue bypass lanes, Transit Signal Priority
- (3) March 2021 Appendix H Transportation Technical Memorandum pg. 28 delays on the Lake Forest Park section of HWY 522 are heavily impacted by heavy traffic volumes at the intersection
- (4) March 2021 Appendix H Transportation Technical Memorandum pg. 14 estimate bus transit time
- (5) March 2021 Appendix H Transportation Technical Memorandum pg. 15 higher peak hour traffic volume than the AM counterpart
- (6) 2020 Community Engagement Guide, pg. 4 30 minutes end to end
- (7) [Stride S3 bus rapid transit | Project map and summary | Sound Transit](#) 22 minutes/22mph
- (8) March 2021 Appendix H Transportation Technical Memorandum pg. 1 planned headway is 10 minutes
- (9) Sound Transit System Performance Tracker [System performance tracker | Ridership | Sound Transit](#) Will daily bus boardings
- (10) April 2022 Annual Program Review pg. 48-51 highlights several risks, including inflationary rise in property acquisition
- (11) Agency Progress Report February 2022, pg. cost of ROW
- (12) April 2022 Annual program Review pg. i Realignment Process “instructs staff to produce Annual Program Reviews
- (13) Letter from Roger Millar to Kent Keel dated February 25, 2021