Summary

I-405/SR 167 Executive Advisory Group Meeting

Tuesday, Jan. 3, 2018
Renton Community Center
1:30 p.m. – 3:30 p.m.

Executive Advisory Group members and elected officials in attendance:

☑ Secretary of Transportation Roger Millar, Chair
☑ Commissioner Shiv Batra, Washington State Transportation Commission
☑ Councilmember Randy Corman, City of Renton
☑ Deputy Mayor Davina Duerr, City of Bothell
☑ Linda Gerkhe, Federal Transit Administration
☑ Emmet Heath, Community Transit
☑ Mayor David Hill, City of Algona
☑ Dan Mathis, Federal Highway Administration
☑ Mayor Dana Ralph, City of Kent
☑ Councilmember Pam Roach, Pierce County Council
☑ Kevin Snyder, City of Auburn Public Works Director
☑ Councilmember John Stokes, City of Bellevue
☑ Councilmember Mike Todd, City of Mill Creek
☑ Mayor Amy Walen, City of Kirkland

Staff in attendance:

☑ Dave Berg, City of Bellevue
☑ Jeff Brauns, City of Newcastle
☑ April Delchamps, City of Kent
☑ Reema Griffith, Washington State Transportation Commission
☑ Luke Lamon, Sound Transit
☑ Doug McCormick, Snohomish County
☑ Deb Osborne, Community Transit
☑ Joel Pfundt, City of Kirkland
☑ Max Phan, Snohomish County
☑ Carl See, Washington State Transportation Commission
☑ Andrea Tull, Sound Transit
☑ Bernard Van De Kamp, Sound Transit
☑ Greg Zimmerman, City of Renton
☑ Hannah Britt, I-405/SR 167 Project Team
☑ Anne Broache, I-405/SR 167 Project Team
☑ Amy Danberg, I-405/SR 167 Project Team
☑ Lisa Hodgson, I-405/SR 167 Project Team
☑ Meredith McNamee, WSDOT Toll Division
☑ Wendy Taylor, Deputy Director, I-405/SR 167 Project Team
☑ Carryn Vande Griend, I-405/SR 167 Project Team
☑ Karl Westby, I-405/SR 167 Senior Traffic Manager
I. Introductions and Agenda Review

Secretary of Transportation Roger Millar welcomed the I-405/SR 167 Executive Advisory Group, asked the EAG members to introduce themselves and provided an overview of the meeting topics.

Secretary Millar briefly reminded the attendees of the group's importance and history along the corridor from developing the Master Plan in 2002 to endorsing a 40-mile express toll lane system in 2010. He noted that the EAG had previously recommended carpool policies and funding and phasing polices for the project and the legislature has looked to this group and taken action on these policy recommendations. Secretary Millar and reminded the group of the capacity improvements that have been made from the Master Plan and encouraged the EAG to voice their perspectives for next steps along the corridor.

II. Sound Transit update

Don Billen, Acting Executive Director of Planning, Environmental and Project Development at Sound Transit gave a brief update on the status of Bus Rapid Transit. He reminded the group that the ST3 ballot measure invested $860 million toward the ultimate long-range vision, which includes high capacity transit along I-405. Last year, Sound Transit hired a project team to begin this work and last month, WSDOT and Sound Transit signed letter of agreement for how they will phase and implement the BRT system. He explained that the BRT program builds off the WSDOT investments, and that the buses will rely on the express toll lanes north of Bellevue and between Renton and Bellevue to operate with speed and reliability. Sound Transit remains interested in pursuing these improvements or a similar lane management scheme.

Billen pointed out that the EAG has been involved in important decisions such as recommending the carpool policy for the express toll lanes. He noted that since express toll lanes opened between Bellevue and Lynnwood, the north end of the corridor has achieved 85 percent reliability (as a percent of the time it reaches 45 mph during peak periods). While many transit agencies have had to add bus hours simply to maintain existing headways particularly on I-5, he said, Sound Transit has maintained headways on I-405 without having to add bus hours. He commended these improvements, especially given the growth in the region.
III. King County update

Peter Heffernan, Government Relations lead for King County Department of Transportation, gave a quick overview on the Eastside Rail Corridor Regional Trail for Erica Jacobs, the project manager, who was unavailable. Their current work focuses on rail removal and installing interim trail segments along the corridor. Heffernan reviewed the segments of the ERC trail that are currently in design and explained the timeline of those prioritized segments. He noted that King County is working with WSDOT to open a 2.5 mile segment of trail in South Bellevue and Renton, as well as a bridge over I-405 near downtown Bellevue, by 2020 as part of the I-405 Renton to Bellevue design-build contract. He concluded by reviewing their Federal TIGER grant submission for $25 million in funding to complete the Wilburton Center Segment and Totem Lake Connector. The grant submission includes over 50 letters of support from general and state elected officials.

Discussion

Linda Gehrke, Federal Transit Administration, stated that it’s important to determine who is going to pay for the overcrossing if the TIGER grant does not come through.

IV. I-405 Traffic Data and Corridor Performance Study

Dr. Alireza Khani from the Department of Civil, Environmental, and Geo-Engineering at the University of Minnesota presented their I-405 Traffic Data and Corridor Performance Study. The purpose of the study was to evaluate express toll lane performance on various segments of the I-405 corridor representing typical trips. He began his presentation by explaining that the study had started in June 2017 and ran until Dec. 2017. The draft report was submitted to the Joint Transportation Committee and a revised version was due Jan. 8, 2018.

The study primarily explored existing data sources to understand performance measures for the I-405 express toll lanes between Bellevue and Lynnwood. They focused on one of the two Legislative criteria for measuring performance of express toll lanes – express toll lane speeds. The study also evaluated speeds in the general purpose lanes. The study found that second performance measure has not been met, but the speed after express toll lane implementation is greater than the previous HOV lanes.

The study determined these performance measures through evaluating WSDOT loop data and express toll lane transaction data. HERE/INRIX data was also considered but it was determined that HERE/INRIX data did not provide a large enough data set or enough lane by lane detail to be useful for this study. From loop detector data, the study found that vehicle miles traveled increased throughout the corridor, with the most significant growth seen in the dual express toll lane in the southbound section.

Dr. Khani pointed out that when separating direction and lane type, the northbound dual express toll lane section showed a 148 percent increase in volumes, far greater than the amount of capacity added by the Bellevue to Lynnwood project. He also noted that even in the single lane section, where there was no capacity increase, there has been a significant increase of volume throughput – nearly 50 percent. He warned however, that these single lane sections are prone to breakdown during peak hours.

The study made a number of recommendations for WSDOT to consider.
Top Tier Short-Term Recommendations:
   1. Improve express toll lane speed through a more responsive dynamic toll algorithm
   2. Improve express toll lane speed through segmented corridor tolling

Second Tier Short-Term Recommendations
   3. Move toward an “open access” express toll lane facility to smooth lane transfer
   4. Increase maximum toll rate to reduce express toll lane breakdown
   5. Adjust AM peak period times to increase express toll lane speed

Long-Term Recommendations
   6. Extend second full express toll lane in each direction to improve express toll lane speed and capacity
   7. Add capacity to ensure lane continuity and ease bottlenecks
   8. Increase transit options to improve throughput and speed

In conclusion, the study found that the express toll lanes are meeting the statutory performance measure related to financial stability but not the performance measure related to the average express toll lane speeds. However, Dr. Khani noted that as time passes and conditions change, even the most sophisticated express toll lanes system need adjustments. There have been improvements made so far, and there should continue to be fine-tuning as part of the natural evolution of the management of these lanes on the corridor.

Q&A and discussion

Rep. John Lovick said he was pleased that traffic had slightly improved after opening the peak-use shoulder on the north end of I-405, but wanted to know how that improvement was measured. Dr. Khani responded that the study used three variables: travel time, traffic volume and speed, and compared those changes from month to month. For their study, they observed performance of those three measures after the peak-use shoulder opened in April 2017, and determined traffic had improved.

Renton Councilmember Randy Corman asked if Dr. Khani's research team had studied the ramifications of removing the express toll lanes since there has been public support for doing so. Dr. Khani told him they had not done analysis on the removal of express toll lanes or what the optimal configuration of lanes would be if the lanes were reverted back to HOV and that it would be a potential future study. Dr. Khani did note that based on the evidence they have and overall theories of traffic management, express toll lanes are helping vehicles move with greater speeds and improved travel time as compared with unmanaged HOV lanes, ultimately allowing more cars through the corridor. Based on the evidence, they believe express toll lanes are the most successful option for this problem.

Dan Mathis of FHWA asked, since there is a number of express toll lane systems around the country, if they have studied other transportation systems with similar challenges. Dr. Khani had not compared I-405 express toll lanes with other express toll lanes systems. He noted that the corridor is particularly unique because of the high growth in the region.
Washington State Transportation Commissioner Shiv Batra said he was pleased to learn from the study that the general purpose lanes had not been impacted, but wanted to know which measures we could take to improve express toll lane performance in the short term. He suggested implementing recommendations 1, 2, 3, and 5 to meet the speed performance measure and increase throughput in the corridor. He asked whether these recommendations would be sufficient and avoid an increase in the toll rate. Dr. Khani said the effectiveness of the recommendations would depend on price elasticity and drivers’ value of time because the toll rate already changes quickly and hits the maximum toll often. Commissioner Batra noted that further recommendations 6, 7, and 8 would require further study.

Mill Creek Councilmember Mike Todd commented that recommendation 1 (adjusting the algorithm) seems like a low hanging fruit to try and asked for further information about WSDOT’s plans to respond to the recommendations. Roger Millar said the WSDOT Toll Division would provide information about how they will implement those recommendations later in the presentation.

Representative Shelley Kloba voiced concerns about the open access recommendation, saying that there would be some safety concerns due to high speeds of traffic traveling next to slower lanes and that those transitions could be dangerous. Dr. Khani said WSDOT would need to limit access to the lanes in areas where safety could be an issue and further study is needed.

Bothell Deputy Mayor Duerr asked clarifying questions about the volume throughput increases in the dual lane section. She asked if the 48 percent increase in volume (above the 100 percent increase in lane capacity) could be divided across the dual express toll lane, resulting in a 24 percent increase per lane. Dr. Khani said the data could be interpreted as divided across both lanes. He noted that in the single lane section the researchers observed a 43 percent increase in throughput, with no capacity increases. Davina asked if the lane would lose those gains if they went back to HOV lanes. Dr. Khani said they didn’t study what would happen if the lanes went back to HOV.

Secretary Millar then took questions from four members of the public in the audience.

The first audience member asked if success of the express toll lanes depends on congestion in the general purpose lanes. He asked Dr. Khani if there is no congestion in the general purpose lanes, can you consider the express toll lanes a success. Dr. Khani answered that the express toll lanes provide an option if the general purpose lanes are congested. Dr. Khani also clarified that the purpose of the express toll lanes is not to generate revenue; they are to manage traffic.

A second audience member asked for clarification about why it is considered a positive thing if the general purpose lanes showed no significant change. Dr. Khani clarified that it is notable that the general purpose lane congestion has not worsened, even with high growth in traffic and regional population.

A third audience member asked if the Commission has considered how high the toll may go before drivers choose to stop using the express toll lanes. Roger Millar explained that the Washington State Transportation Commission looked at the performance on the highway and made the call to cap the toll rate at $10, although there are express toll lane system around the country that do not have a cap.

A fourth audience member asked Dr. Khani if they had done similar studies like this for other states in the past and whether the results were consistent with their other findings. Dr. Khani said while the study was conducted by a group of researchers who have done similar studies, he himself had not worked on other
state projects in the past. Dr. Khani added that the results are consistent with other express toll lane
systems.

V. WSDOT update

Ed Barry, Director of the Toll Division, started with an overview of WSDOT’s response to the University of
Minnesota study. He said the study validates WSDOT’s data and that confirms that they are reporting on
I-405 performance correctly.

Barry highlighted that, as the study noted, express toll lane speeds and reliability have improved over
previous HOV lanes resulting in more vehicles moving through the I-405 corridor. WSDOT is already
addressing the first recommendation by working on changing the algorithm to update the toll rate more
frequently. In addition, WSDOT is evaluating other changes to make the system more responsive to
increasing traffic volumes during the peak period commute. WSDOT will conduct further analysis to
determine which recommendations may benefit system performance. Further discussion with the
Legislature and State Transportation Commission will be necessary on how to address some of the
recommendations in the report.

Mr. Barry reminded the group that as of the two-year mark, express toll lane speeds are meeting or
exceeding their Legislative performance metric of 45 mph, 90 percent of the time in three out of the four
sections, except for southbound from Lynnwood to Bothell. Overall, they meet the goal 85% of the time,
farther than the HOV lanes were moving (56%) two years ago in most places. While the express toll lanes
are flowing at least 45 mph about 95 percent of the time in most places, but the southbound morning
commute from Lynnwood to Bothell only moves at 45 mph about 63 percent of the time, which is pulling
down the overall average.

The I-405 express toll lanes have exceeded their revenue generation metric, collecting $45.5 million as of
the two-year mark in September 2017. Two-thirds of the toll revenue ($28.8 million) is dedicated to future
investments in the I-405 corridor, including $11.5 million already used to build the peak-use shoulder lane
from Canyon Park to Lynnwood.

Barry noted that the remaining $15.7 million covers operating costs, including customer service,
maintaining toll equipment, administrative costs, WSP enforcement, and transaction fees. He also
mentioned that only three percent of the total revenue goes out of state to the toll vendor HQ in Texas. He
reminded the group that much of the operating cost goes to customer service centers here in Washington
State, within over 100 local employees.

Kim Henry, the I-405/SR 167 Program Administrator, gave a review of other traffic performance measures
covered in the last EAG meeting, including differences in peak hour volumes of vehicles and people
moved on I-5 and I-405. At sections with similar daily traffic and the same number of lanes, I-405
performs better than I-5, moving about thirty percent more vehicles through the same number of lanes.
Transit agencies have benefited from this increased reliability on I-405, as costs of operation have
dropped while costs have increased to maintain the same service on I-5. Henry reiterated the importance
of completing a 40-mile express toll lane system to support high capacity transit investments.

Henry also reminded the group of traffic modeling regarding switching the express toll lanes back to 2+
HOV lanes, or reducing the lanes to a single express toll lane. Both scenarios increased the bottleneck
in the north end where there the single lane express toll lane is already subject to peak hour congestion. He
reminded the group that WSDOT recognizes that problem area, especially in the southbound direction, and is prioritizing a strategy to build a second toll lane from SR 527 through the SR 522 interchange with help from tolling revenue. If there were no funding constraints, north end improvements could start as soon as 2021 and open by 2024, before BRT comes online. Mr. Henry walked through how these two interchanges, SR 522 and SR 527, could be modified to improve traffic in that area.

Doug Vaughn, Chief Financial Officer at WSDOT, presented a preliminary analysis of bonding options from toll revenue conducted recently by the Office of the State Treasurer. The analysis assumed a $10 toll cap and current bond market conditions, and included only Bellevue to Lynnwood toll revenue. Vaughn explained two scenarios and noted that both would require legislative authorization. For stand-alone toll bonds, a single pledge of toll revenues would require a higher coverage ratio and assume a higher interest rate, generating a bond capacity of approximately $76 million. For triple-backed bonds, pledging tolls, the existing fuel tax, and the full faith and credit of the state would result in a comparatively lower coverage ratio and a lower interest rate, generating bond capacity of approximately $200 million. Vaughn emphasized that this is preliminary analysis and that more work will need to be done.

Secretary Millar then gave a brief overview of the history and importance of the EAG. He noted that some EAG members around the table had been involved since 2010 when the group endorsed the 40-mile express toll lane corridor, and based on that 2010 endorsement, the Legislature authorized first phase of express toll lanes between Bellevue and Lynnwood in 2011. Since then, the EAG has also recommended a three-plus peak, two-plus off-peak carpool policy as well as a funding and phasing strategy for Renton to Bellevue. He also noted that in 2015, the Legislature funded the I-405 Renton to Bellevue project through Connecting Washington based on the EAG’s recommendation to complete 40-mile system. Then in 2016, voters approved the Sound Transit 3 initiative, which included I-405 Bus Rapid Transit with the intent of utilizing the express toll lanes and their increased performance levels.

Now as the EAG has wrapped up, the Legislature will be doing a two-year performance review of Bellevue to Lynnwood. Millar concluded by telling the group he could not emphasize enough the importance of the EAG and their leadership along the corridor and opened the discussion to hear their perspectives on next steps.

Discussion
Pierce County Councilmember Pam Roach took a moment to highlight the geographical constraints of the region and urged the group to create future growth plans that aren’t as Seattle-centric. She suggested creating incentives for employers to allow teleworking or create employment centers in the southern region where there is less density. She asked if Dr. Khani had dealt with other places in the country with any effort to spread the wealth out to reduce social inequity and increase living standards. Dr Khani answered that he had not done research related to problems from population density but that there were members of his team who had more experience in that area.

Rep Kloba asked Vaughn for clarification on the triple-backed bonding scenario. Vaughn explained the differences between the two types of bonding scenarios. He noted that both bonding scenarios assume toll revenue only from the Bellevue to Lynnwood section would be used to repay the bond. He noted that stand alone toll-backed bonds would only use toll revenue and were therefore a higher risk. Triple-backed bonds also used the roll revenue but they are guaranteed by the fuel tax and good faith and credit of the state.
Randy Corman told the EAG that Renton is supportive of going forward with express toll lanes and are certainly excited about getting some relief along the corridor. Since being on the committee for years, he’s told countless people that an express toll lane working optimally can carry more vehicles per hour than general purpose lanes. He urged that it’s not just about making sure the express toll lanes are doing well, but it’s about using the lane capacity to its optimal performance. He stated that nothing he heard today conflicts with that. He announced that the City of Renton is joining other cities in circulating a letter of support for extending the express toll lanes to Renton and plans to share the letter with the Legislature.

Representative Ryu asked if there is a case to be made on the economic development side, since improving traffic will attract more business and development in the area. She urged the EAG to consider any measures that increase throughput for I-405 which also affects I-5, since she represents Shoreline. Secretary Millar answered that we made the economic case from completing the improvements from SR 522 to I-5 but those improvements would be over a billion dollars. To start, their goal is to create some relief by extending to benefits to SR 527. Millar reminded the group that what they’re seeing and what’s interesting about the University of Minnesota research is that speeds on the highway haven’t changed dramatically, amidst dramatic growth in population and employment in the region. The transit agencies are moving more I-405 passengers today at the same costs whereas routes on I-5 have to add buses to keep up with the demand. Families who require day care, or small business people are realizing they can get more stops in during their day. He said that WSDOT is interested in providing people with a choice. He acknowledged that while the express toll lanes are performing better than the HOV lanes, WSDOT recognizes that further improvements are still needed.

Rep. Kloba noted that regional growth has exceeded projections. She reminded the group that the I-405 Master Plan was developed in 2002 and urged revisiting the plan. She also urged WSDOT to accelerate the north end capacity improvements and shorten the timeframe for design and construction, noting that the southbound performance problems near Bothell are a problem for her district.

Deputy Mayor Duerr said she appreciated the recommendations from the University of Minnesota, particularly those that were alternatives to raising toll rates, noting concerns about high toll rates paid in Bothell. She wondered what the congestion heat maps will look like in the future before they see the capacity improvements in the north end. She voiced concerns about the timeline outlined for the north end improvements and how to generate enough funding to accelerate the improvements. She asked why under assumptions the bond sales will begin in 2021 — noting that a three-year wait time seemed too long. Vaughn answered that they assumed the forecasted cashflow wouldn’t need bonds until construction begins in 2021. She concluded by emphasizing the problem and need for congestion relief in that area.

Commissioner Shiv Batra said that the members of the Washington State Transportation Commission, including himself, have been watching to see how the express toll lanes perform. To achieve 90 percent reliability they set the toll limit to $10 dollars. He noted that we are seeing that if they maintain that cap, they don’t meet the performance criteria. He reiterated that WSDOT should implement the short term recommendations by Dr. Khani’s team, and continue work toward the long term recommendations. Batra also emphasized the importance of improving speed performance, to make way for high capacity transit.

Mayor Hill asked what the charge per segment would be if they implemented the segmented tolling recommendation. Secretary Millar explained that a driver would see the price for the next segment and decide if he or she would use the lane for that price. He also asked Mr. Vaughn if the bond would include
funding for roadway repairs. Vaughn said the funding would include net of operating and maintenance costs.

Mayor Amy Walen thanked WSDOT for their work and flexibility in working toward the overarching goal for the region. She said they are working in Kirkland but understand the need to add capacity north of Kirkland. She said she appreciated the work that had been done in the study and expressed support for how WSDOT has responded to their concerns.

Councilmember John Stokes also said Bellevue is supportive of the 40-mile system and providing a system for Bus Rapid Transit. Unfortunately, he said, we are always playing catch up since the region is growing beyond funded improvement. What they are building now is not going to be adequate but without these improvements, it would be a lot worse. He expressed frustration with not being able to make the investments they really need. Mayor Stokes emphasized the need to work regionally – the north end working with the south end and pledged Bellevue’s support for extending the toll lanes to Renton. Again, he reiterated that it would only happen if they work together.

VI. Public comment

John Schomer began his comment by thanking WSDOT for the work they do around the state. He said he sees the express toll lanes program as a failure. He agreed that we have seen amazing growth in Washington State but is frustrated that WSDOT has not built roads to keep up with population growth, and only building new roads for people who can afford them. He does not trust the WSDOT data that shows general purpose lanes are carrying the same volumes that they did before express toll lanes and urged the group to end the express toll lanes. He concluded by urging WSDOT to build more highway lanes to carry the growth.

Tyler Morra, a Renton resident, asked why the meeting was held during business hours and suggested moving the EAG meetings to the evenings. He said that based on his interpretation of the 18 month express toll lane report, general purpose and express toll lane travel times had increased by an average 3 minutes due to regional growth. He questioned why WSDOT had not accounted for this regional growth. He also asked why the link for raw traffic data on the website doesn’t work, and emphasized the importance of reviewing the data. He also argued that to endure five years of construction for traffic to maintain current levels, is no reason to endure the time, money and inconvenience. He stated that WSDOT is in violation of the law for keeping the express toll lanes open because the lanes are not meeting the legislative speed metric.

Vic Bishop, chair of the Eastside Transportation Association, said his group has been following the Master Plan for 20 plus years. He said WSDOT is only 35 percent complete toward adding two additional lanes in each direction and by 2024, we’ll only have accomplished 45 percent of the goal. Mr. Bishop said he was also concerned that in the contract for the University of Minnesota’s study, in Task 3 it said to develop recommendations to improve traffic in the corridor, including studies of changes to the lane configuration on the roadway and all general purpose lane alternatives. He argued that the report produced by University of Minnesota didn’t touch on those issues, even though their contract for $160,000 directed them to produce white papers on each subject. Mr. Bishop concluded by stating WSDOT has invested too much money in rail, instead of adding general purpose lanes to keep up with growth. He said he believes WSDOT is interpreting the law differently than what the Legislature directed by continuing with their plans to expand the corridor wide express toll lane system.
Bob Pishue from the Eastside Transportation Association voiced concerns about relying on bonding to complete the express toll lane system. He argued that tolls on I-405 would be locked in; just as tolls on 520 are set until the bond is paid off. He believed this would ultimately commit the region to completing the full express toll lane system because bonding is inherently inflexible. He voiced concerns that bonding toll revenues would create a financial obligation to keep the general purpose lanes congested.

Dave Burger, a resident of SE King County, submitted his comments via email and asked them to be included in the record. In his comments, he asked WSDOT to clarify the Renton to Bellevue project scope; since “creating a two-lane express toll lane system” implies that they will be adding two additional lanes, instead of adding one new lane joined with the existing HOV lane. Burger asked WSDOT to revise the project webpage and issue a press release that clarifies the scope for building a single lane to complete the two-lane express toll system. Burger also inquired whether there was a plan for funding a second general purpose lane, other than tolling revenue. He argued that using toll revenue to build a second lane would double tax Renton residents for the same improvements funded for other corridors, like I-90. The WSDOT I-405 office responded to his comments and plans to update the webpage to provide clarity on the Renton to Bellevue project scope.

VII. Wrap up

Secretary Millar concluded the meeting by thanking the public for their comments and acknowledging that the corridor requires further improvements that are not necessarily funded yet. He said he appreciated everyone’s diligence and persistence in coming up with solutions to the congestion along I-405 and looked forward to moving forward with these improvements and other mobility projects in the wider Puget Sound region.