Expert Review Panel for Sound Transit Phase 3 (ST3)

SUMMARY OF MEETING

May 4 – 5, 2015

Mayflower Park Hotel; Seattle, WA

MONDAY, MAY 4, 2015

Panel members present: Jim Jacobson, Chair; Mark Hallenbeck, Susan Haupt, Jay Kline, Kimberly Koenig, William Lorenz, Steve Lundin, Dr. Siim Sööt, Richard Walker, Mark Weed; *Administrator:* John Howell

Presenters: Dylan Counts (WSDOT), Ric Ilgenfritz (Sound Transit), Annie Johnson (WSDOT), David Beal (Sound Transit), Allison Dobbins (Parsons Brinckerhoff)

Members of the public who commented: Will Knedlik

Welcome and Introductions

John Howell welcomed Expert Review Panel members and asked each to introduce him/herself. He then asked audience members to introduce themselves.

Dylan Counts, Sound Transit Liaison at Washington State Department of Transportation (WSDOT) thanked panel members for their willingness to devote their time and expertise to be part of the process of reviewing the Sound Transit Phase 3 (ST3) planning. The Expert Review Panel for ST2, which Mr. Lorenz, Mr. Lundin and Dr. Sööt were part of, had an important role in the successful development of the plans for ST2. For this panel, WSDOT has asked Jim Jacobson to serve as Chair. He worked with Sound Transit when he was with King County Metro, and, since he is local, will be able to meet with staff and the Sound Transit Board, as needed.

Ric Ilgenfritz, Executive Director of Planning, Environmental and Project Development at Sound Transit also welcomed the panel members and emphasized the importance of their input. Sound Transit is a special purpose government led by federated governance of representatives who are elected officials of cities and counties in the Sound Transit District. This district includes the urban areas of three counties—King, Pierce and Snohomish—which are the home of 3 million people. Mr. Ilgenfritz reports to the Chief Executive Officer of Sound Transit, and will help the CEO and Board make decisions about ST3, which is an agency wide effort toward meeting regional transit needs.

John Howell, Panel Administrator, explained the roles he will play, based on his experience as Administrator for the ST2 Panel. In addition to facilitating panel meetings, he will be the panel's primary liaison with Sound Transit and WSDOT to follow up on materials needed, information requests and any conversations between meetings. He will also assist in drafting the panel's comments and suggestions to their appointing authority. He noted that all panel members will have the opportunity to review any communications from the panel.

Mr. Howell noted that the first day of this two-day panel meeting would provide context and background for their work, including a tour of one area where ST2 work is underway and another area

for potential inclusion in ST3. Mr. Howell encouraged panel members to let him know if there are other areas they would like to tour.

Role of the Panel and Operating Ground Rules

Annie Johnson, Integration Planner at WSDOT, provided an overview of the panel's role. The panel will provide independent review of Sound Transit's methodology, cost estimating and system plans, and will vet Sound Transit's planning assumptions. The state law requiring an expert review panel and setting out the panel's duties is in 81.104 Revised Code of Washington (Tab 1 in the meeting notebooks). Panel members should note especially 81.104.100 and 81.104.110. This legislation is the touchstone for expectations of the panel.

Mr. Howell introduced and summarized the proposed Operating Ground Rules for the Panel (Tab 1 in the notebook). He reviewed key provisions of the ground rules. These included that a quorum is eight of the 10 panel members. The panel will operate by consensus. Since all members have been appointed by the Governor, chairs of the Legislature's Joint Transportation Committee and the Secretary of Transportation, there is no option for designating alternates. The Chair will respond to any media inquiries about the panel's work. Meetings are open to the public. While there will not be formal public testimony at the meetings, the Panel Chair, at his discretion, may ask at the end of each meeting day if anyone in the audience would like to comment briefly. If the panel would like additional consultant expertise on a particular issue, Mr. Howell and the Chair would develop a selection process.

In response to a panel member's question about sharing the panel's activities with groups he belongs to, Mr. Howell said that since the meetings are open to the public, members may describe the briefings and discussion at meetings. However, panel members should not speak on behalf of the panel on any conclusion or position of the panel.

Pursuant to the statutes providing for expert review panels, the appointing authority selected Jim Jacobson to chair the panel. Chair Jacobson asked panel members to let him know if the ground rules are not working. He also noted that the meeting agenda is a guide and can be adjusted if panel members would like additional time on any topic.

Schedule Overview

Mr. Ilgenfritz directed the panel's attention to the "Expert Review Panel Look-Ahead" in the back of Tab 1. This is a rough schedule for the panel's meetings showing the topics expected for each meeting. The main task for Sound Transit is to adopt a plan by June 2016 in order to be on the ballot in fall 2016. Sound Transit will use the first and second quarters of 2016 to take the draft plan out for public review and comment.

Sound Transit History and Context

Mr. Ilgenfritz reviewed the history of high-capacity transit in the Central Puget Sound Region leading to Sound Transit. The State of Washington delegates transit planning and operations to the local level. In the late 1960s, there was an effort in the region, called Forward Thrust, to invest in many kinds of public

facilities. One element that did not succeed with voters was a regional approach to rapid transit. The ballot measure authorized general obligation bonds to be issued and multiple-year excess levies to retire these bonds, which required a 60 percent majority but the transit measure received only 58 percent. One of Washington's U.S. senators, Warren Magnuson, had lined up a federal matching grant for transit, which instead went to Atlanta to help build their MARTA transit system.

Mr. Ilgenfritz summarized the effort to develop regional transit that was formed in 1993. (See presentation slides, "An Amazing Ride"). The first ballot measure for regional transit, Sound Move, was in 1995, but was not successful at the ballot until 1996. In 2005, the Sound Transit Board began planning for expansion. After a combined road and transit ballot measure failed in 2007, the Sound Transit 2 (ST2) ballot measure passed in 2008 with 57 percent approval.

An Expert Review Panel for Sound Move was appointed by the Governor, the Legislature's Joint Transportation Committee and the Secretary of Transportation, and met between 1989 and 1996 to review the planning for the program. Another Expert Review Panel was appointed for ST2, which met nine times between 2005 and 2008.

Sound Transit's revenues are from sales tax, currently authorized at 0.9 percent, and a 0.8 percent motor vehicle excise tax (MVET) to be collected through 2028. The 2008 recession reduced the sales tax revenue by approximately 25 percent. However, Sound Transit's capital cost estimates had a high and low range plus a 15 percent contingency. The Board directed the staff to remove the 15 percent contingency, manage on the low side, and cut some operating and maintenance costs. By doing so, the capital program was 90 percent intact. Fortunately, the revenue picture has been improving since the end of 2013. Central Link opened in 2009 and ridership has been growing every year.

Mr. Ilgenfritz outlined the preparations and schedule for ST3. Sound Transit will need additional revenue authority from the Legislature for ST3. There is a bill in the House that includes the full request and one in the Senate that includes part of the request. The Legislature is now in special session, which could extend into June.

Responses to Panel Questions

Ridership forecast: Central Link Ridership was forecast to be 42,500 per day by 2020. It is currently at 34,000 per day, with 11 - 12 percent growth per year.

Revenue forecast: The Expert Review Panel for ST2 discussed whether the contingency was too robust. They asked Sound Transit to model a simulation of the dotcom recession of 2000 in the financial plan, and Sound Transit demonstrated it could withstand a recession of that magnitude. The actual revenue is 25 percent lower than what was forecast to come in over 15 years. This significant drop in revenues in the early years of ST2 will take a long time to rebuild and can never be fully recovered. Regarding the current recovery and projected population growth in the region, Mr. Ilgenfritz said that these are key factors in Sound Transit Board's urgency to move forward with ST3.

Cost estimating: At the time of the ST2 ballot measure, the light rail portion was mostly at 2 to 5 percent design; the smaller projects were estimated from experience. While the revenue reduction has been painful, in some cases the bids came in better than expected. Since Sound Move, Sound Transit has improved its estimating and scheduling for projects. The original Central Link segment was procured following the dotcom recession, and University Link and Northgate Link were procured following the 2008 recession, resulting in better costs.

Construction contingency: There is both allocated and general contingency with a range of 20 to 25 percent. For ST2 there was a 15 percent capital reserve in top of the contingency.

Regional equity: Regarding how fluctuations in tax revenue by region affect the planning, Mr. Ilgenfritz said that Finance Director Brian McCartan can provide detailed information. Mr. McCartan reviews financial forecasts twice a year. The budget is updated annually. Changes from this review have included putting on hold light rail to Kent–Des Moines, while going ahead with the transit centers in Bothell and Redmond.

Federal funding: East Link in ST2 does not have funding from a New Start grant but has a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan from the U.S. Department of Transportation.

Level of design: When the Board adopts the ST3 plan, the ST3 projects will be between 1-5 percent design. Before the Sound Move vote, the design was at approximately 5 percent. At the time of the ST2 vote, design was approximately 2 to 5 percent for light rail, and between 1 and 5 percent for other projects.

Relation to regional planning: The ST3 plan will represent the next step toward building the regional high capacity transit system, consistent with the Puget Sound Regional Council's (PSRC) Transportation 2040 Plan. The evaluation of the scenarios will be based on PSRC's growth projections.

Panel's involvement in ST3 planning: The Expert Review Panel will be involved in reviewing methodology reports, the project list, the evaluation results, the corridor evaluations and the financial plan development.

Sounder train extension south: Extending Sounder south to DuPont was not part of ST2, but Sound Transit owns the right-of-way to the Pierce/Thurston county line and could study the corridor for ST3 if there is public interest.

Sound Transit Planning Requirements

David Beal, Director of Planning and Development at Sound Transit, summarized the agency's planning requirements. There are more than 100 different provisions in state law that put requirements on Sound Transit's system planning. Sound Transit is one of only a few regional transit authorities in the country that has significant state requirements.

Mr. Beal introduced Allison Dobbins, who was part of the Parsons Brinckerhoff consultant team for ST2. She provided a copy of a December 2008 report she wrote on how Sound Transit complied with the state planning requirements ("Sound Transit 2 Compliance with HCT System Planning Requirements — Technical Memorandum Options Assessment and Analysis Methods"). A key task of the report was to detail the development and evaluation of options ranging from "Do Nothing" to "High" capital investment. The state statutes call out high-capacity transit as operating principally on exclusive right-of-way and commuter rail, and require evaluation of other ways to serve the markets.

Another part of the task was to assess how well the ST2 plan conformed to PSRC's Destination 2030. Ms. Dobbins noted that the PSRC region is larger than the Sound Transit district, as PSRC includes the full extent of King, Pierce and Snohomish counties, plus Kitsap County. Parsons Brinckerhoff also assessed the social and environmental impact of and public involvement for the ST2 plan.

For ST3, Ms. Dobbins anticipates developing similar kinds of documentation, and assessing at least three financing options: "Do Nothing," "Low" and "High."

Responses to Panel Questions

Sound Transit District: The Sound Transit District generally consists of the urbanized portions of three counties: King, Pierce and Snohomish. The district is further divided into five subregions: Pierce, Snohomish, North King (Seattle, Shoreline and Lake Forest Park), East King and South King. The portion of Snohomish County in the district is small, though it includes a large proportion of the county's population. Expansion of the district has been discussed, including adding more of Snohomish County and extending south to include the urban portions of Thurston County and the capital city of Olympia. The process of adding areas is not complex but needs to be by local vote. The legislation on regional transit authorities encourages the boundaries to be close to the Growth Management Act boundaries. The RTA Act requires the county council to vote to join the district. The Snohomish County Council originally decided to keep the Sound Transit boundary narrow in order to increase the chance of an affirmative vote. There might not be time to expand the boundary for a June 2016 ST3 plan.

➤ Panel members requested a map comparing the Sound Transit district boundaries with those of the PSRC.

Access to stations: Some of the Sounder and light rail projects have included parking at the stations. However, the Sound Transit Board has become more aggressive on system access. The staff will research access costs and ways to partner with local jurisdictions. Sound Transit has not planned parking at stations within the City of Seattle because of the city's policies. Outside Seattle, most stations will have drop-off space, bike racks and parking. At Overlake, no additional park-and-ride is planned.

Panel members requested a copy of Sound Transit's system access policy, the City of Seattle policy, and information on how Sound Transit can negotiate with individual jurisdictions on what is supplied at stations.

Land value near stations: "Value capture" of the increase in value near transit stations is not allowed under state law, though it has been discussed within the Legislature. It was later clarified that, while tax increment financing is not prohibited under state law, its implementation is complex.

Tax increment financing: Brian McCartan could address the possibilities for this type of financing.

High-occupancy vehicle (HOV) lane: There were no HOV construction elements in ST2.

Forecasting review: There is no separate review required for forecasting work—the Expert Review Panel is to include this review.

Relationships with local transit agencies: Sound Transit is unique among regional transit providers in that it does not directly operate its services, except for Tacoma Link, but contracts with local transit agencies to be the operator. King County Metro operates 60 percent of Sound Transit service, including the light rail. Pierce Transit operates the Sound Transit bus routes in Pierce County. Community Transit in Snohomish County operates Sound Transit bus service to/from that county. Sound Transit contracts with Burlington Northern Santa Fe Railroad to operate the Sounder trains and with Amtrak to maintain the Sounder equipment. The transit partners maintain the bus fleets at their respective facilities.

Sound Transit has funded construction of a number of direct access HOV ramps. WSDOT administered construction, and maintains the ramps and keeps the priority for transit.

Sound Transit also plans service with the local transit partners, and has a monthly general managers meeting and a monthly service operations meeting. The Transit Integration Group plans bus service and updates it three times a year. There is a constant process to fine tune service. Sound Transit recently received a request to hold a regional transit summit on how resources are being used.

Brian McCartan can speak to how the financial plan accounts for the risk inherent in the fact that local transit agencies, not Sound Transit, control cost growth on the operating side. This is an issue when service contracts come up for renewal.

I-90 bridge restriping: The I-90 Two-Way Transit and HOV Operations project (also known as R8A) adds HOV lanes to the outer roadways of I-90, which then allows Sound Transit to construct the East Link light rail extension in the I-90 express lanes. Construction on the I-90 portion of East Link is expected to begin in mid-2017.

Panel Comments

Access to stations: Sound Transit has the authority to use a Local Improvement District (LID) to engage nearby property owners and negotiate station area amenities based on the increased property value from the station. A good place to consider doing this is could be Paine Field.

Statute on high-capacity systems: The statute appears to say that King County cannot run an HCT system without the permission of Sound Transit, for example, because Sound Transit pre-empts local authority to do so.

Coordination among transit agencies: There is a public perception that transit is not coordinated among the local agencies, or between local agencies and Sound Transit. Sound Transit needs to find a way to correct this misconception.

Comments from the Public

Will Knedlik, President of Eastside Rail Now, commented on Sound Transit's history. He said that several members of the Expert Review Panel for Sound Move urged Sound Transit not to fund the north line Sounder service, since the rail runs along a slide-prone area. He said that 18-and-a-half years after Sound Move, Sound Transit's ridership has not reached the levels predicted. He also commented that Sound Transit's negotiations with the counties need to recognize requirements that counties operate transit in their jurisdiction. Finally, he directed the panel's attention to the limit of \$800 million in long-term debt.

Tour

Following lunch, Sound Transit panel members were taken on a tour that included the Capitol Hill Light Rail station, the East Link alignment across I-90 and through Bellevue, and to downtown Redmond, which is a potential expansion option for light rail in ST3. Sound Transit provided an overview of the University Link project and progress (see presentation slides, "University Link Extension").

TUESDAY, MAY 5

Panel members present: Jim Jacobson, Chair; Mark Hallenbeck, Susan Haupt, Kimberly Koenig, Steve Lundin, Dr. Siim Sööt, Richard Walker, Mark Weed; *Administrator:* John Howell

Panel members absent: Jay Kline, William Lorenz

Presenters: Valerie Batey (Sound Transit), David Beal (Sound Transit), Karin Ertl (Sound Transit), Karen Kitsis (Sound Transit), Mike Harbour (Sound Transit), Kathy Leotta (Sound Transit), Chris Rule (Sound Transit), Assistant Secretary Amy Scarton (WSDOT), Eric Chipps (Sound Transit), Andrea Tull (Sound Transit)

Members of the public who commented: William Popp

Welcome and Reflections on the Tour

Mike Harbour, Acting Chief Executive Officer of Sound Transit, welcomed and thanked panel members for lending their time and expertise to review of ST3 planning. As a civil engineer with a more than 30-year career in public transportation, Mr. Harbour has found that Sound Transit is a high-energy agency that is very clear about its mission.

Panel Comments

In reflecting on the tour of the day before, panel members offered the following comments.

Geographic constraints: The Seattle area appears to be a very difficult market to serve, given the constraints of Puget Sound, Lake Washington, Lake Sammamish and other navigable waterways to cross.

Subarea challenges: The desire for subarea equity is important to recognize. It is interesting that although the law only requires subareas to be defined by county, the Sound Transit Board has chosen to subdivide King County into three subareas. Given the long timeline of transit projects, it is clear that spending by subarea will differ as transit is developed. Presumably the Board will review equity over time.

Technology in Tacoma: Since Tacoma Link uses a different technology from Central Link's, it would be wise to design the stops in the expanded Tacoma Link so they can eventually accommodate the main Link system.

Long-Range Plan and Environmental Impact Statement Overview

Karen Kitsis, Planning and Project Development Manager at Sound Transit, described the process of updating Sound Transit's Long-Range Plan (see document under Tab 5 and handout, "Updating Sound Transit's Long-Range Plan"). She noted that statute defines "high-capacity transportation system" as being principally in its own right-of-way, and that this is the franchise that Sound Transit has in the region. Sound Transit's Long-Range Plan provides a vision for high-capacity transportation services unconstrained by resources, while the System Plan is for service under the existing financial and physical constraints.

Karin Ertl, Senior Environmental Planner for Sound Transit, described the planning process. Sound Transit developed long-range plans for Sound Move, ST2 and now to plan ST3. Since state law requires environmental review before a plan is adopted, Sound Transit developed a Supplemental Environmental Impact Statement (SEIS) for each long-range plan. Before developing the ST3 SEIS, Sound Transit hosted public and jurisdiction scoping meetings. These were received with interest and generated more than 1,200 survey responses and approximately 5,000 written comments. The comments included many ideas for corridors, including some that are outside Sound Transit's service area.

The SEIS included a "No Action" alternative, as required by state law, and several alternative plan modifications, which included suggestions from local jurisdictions and the public (slides 16 – 18 in the presentation). Environmental justice was one of the elements examined in the SEIS because it is important to Sound Transit and now is part of the new Sound Transit long-range plan, will be needed for the project level planning, and is required by the National Environmental Policy Act (NEPA) though not at the state level. Sound Transit met with the U.S. Environmental Protection Agency (EPA) to explain the process.

The corridors examined in the SEIS represent general areas, not specific alignments. Sound Transit examined the corridors in swaths defined by mode: a 1-mile width for light rail, 200 feet on either side of the traffic lane for bus rapid transit (BRT), the footprint of the current road for Regional Express Bus,

and 200 feet on either side of the existing railways for commuter rail. The results were summarized in a matrix to show how resources would be impacted.

The analysis showed that the biggest ridership gains would be on the spine from Everett to Tacoma. The 2005 Long-Range Plan did not include West Seattle because it was part of the Seattle Monorail Project, planned at that time but later canceled. The Long-Range Plan update included West Seattle, and found the highest increase in transit ridership and decrease in travel time would be for travel to/from West Seattle.

The system maps on pages S-11 and S-12 of the SEIS Executive Summary show the HCT corridors and services that the Board could choose as modifications of the current plan. These maps provide a vision for where high-capacity transit could go in the future. The SEIS clarifies that transit to Everett could extend to North Everett and Tacoma Mall. Most of the elements of the plan were included in the 2005 Long-Range Plan. Slides 25 and 26 of the presentation summarize text amendments to the Long-Range Plan that the Board adopted. These include a priority for light rail on the Everett to Tacoma spine.

The Long-Range Plan is about the possibilities for where the system could go. As Sound Transit begins system planning, they will start narrowing the projects for study and cost analysis.

Responses to Panel Questions

ST2 map: In response to a request for the ST2 map on slide 5 in the presentation, Ms. Ertl directed panel members to the CD included with the hard copy of the Final SEIS Executive Summary, where the map is Figure 1.

High-capacity on Highway 99: The definition of high-capacity transit in state law supports interim express service on Highway 99.

Outreach survey: The online survey for the SEIS scoping outreach was not a random opinion survey. However, Sound Transit also conducted a randomized telephone survey and checked the responses for consistency against the online survey. Those who took the online survey were interested in having more service faster, but otherwise, the results of the two surveys were consistent. In other public opinion polling, as the economy has improved in the central Puget Sound area, the top issue people now say they are concerned about is transportation.

Ms. Kitsis will provide panel members with the results of the random survey.

Elements examined in the SEIS: Cost estimates and right of way were not examined in the SEIS. These are of concern at the system plan level.

Travel time: The SEIS travel time analysis looked at changes in transit travel time but did not compare it to travel time by automobile. The analysis that showed worsening travel time to/from Everett if the corridor included Paine Field, but did not weight the results by the number of riders to/from that location.

Plan time horizon: The Long-Range Plan does not have a time horizon. The System Plan horizon for ST3 is 2040, which ties to the PSRC forecasts.

Panel members were interested in a future presentation on more detailed planning that includes the growth areas and projected ridership.

Subarea equity in plans: The System Plan will consider subarea equity. For ST2, the Board members decided which corridors benefitted their subarea. For example, light rail will extend into Snohomish County at Lynnwood. Regarding loans from one subarea to another, Brian McCartan can provide further information. Mr. McCartan can also speak to growth forecasts in the financial plan. Generally, Sound Transit bases their projections on the regional growth forecasts prepared and adopted by the PSRC, and some areas have reached their target growth. This will impact ridership and farebox recovery for system planning.

- Panel members would like to see subarea information in two ways: by the number of riders in each subarea, and by how much revenue is generated in each subarea.
- They were also interested in learning about areas where population growth does not necessarily mean growth in sales tax, such as areas that are largely residential.

Potential types of tax revenue: Property tax revenue is more stable than sales tax revenue. The kind of revenue that will be available to Sound Transit depends on getting authority from the Legislature.

Panel members requested information on the tax revenue forecast based on current taxing authority and how revenues could look with additional tax authority.

Panel Comments

Travel time: It would be helpful to have a basic understanding of the travel times for key Link lines and bus routes. Also, it would be helpful to know the access time—travel time plus transfers—for such routes as Bellevue to the airport that would include a transfer.

Panel members requested a comparison of transit access time and vehicle travel time for examples of travel between regional centers.

High-Capacity Transit System Planning Studies

Kathy Leotta, Senior Transportation Planner at Sound Transit, introduced the corridor studies (see presentation slides, "HCT Corridor Studies: Review of Corridors and Findings"). The corridor studies are intended to generally describe where corridors could be. Several of the corridors are on the regional light rail spine from Tacoma to Everett. This is a very congested corridor, with increased traffic delay since 2005 by 90 percent.

Lynnwood to Everett corridor: Ms. Leotta summarized the study. This is the north end of the light rail spine. Everett Station is multimodal. The 4,000 park-and-ride stalls are currently 90 percent full by 9:00 AM. The area is projected to have 60 percent growth in population and 65 percent growth in jobs by 2040. The study included three light rail and two BRT options in three variations of the corridor,

including one to Everett Station, one to serve Boeing/Paine Field, and an extension to Everett Community College. The projected ridership for all options is relatively high.

Responses to Panel Questions

Asterisks in Options chart: The asterisks and alternative sets of numbers represent extending the line to Everett Community College.

Ridership and destinations: The ridership of the options to Paine Field/Boeing is about 3,000 higher than the other options. Most of the riders on any of the options would be traveling to destinations along I-5, such as Shoreline and downtown Seattle. Other destinations include the University of Washington and Bellevue.

Boeing/Paine Field Connector: The spur shown in Option D is a BRT line to serve Boeing/Paine Field, which would connect with the main BRT line along I-5.

Trip length: The trips would be relatively long – travel from Everett to Seattle would be 49 minutes for the light rail options or 60 minutes for BRT.

Existing bus service: The existing Community Transit and Everett Transit bus service in the area would mostly remain, since the light rail/BRT stops would be two miles apart.

Transit-oriented development (TOD): The alternatives off the I-5 corridor would have more opportunity for TOD. The details would come later in the process in discussions with local jurisdictions.

Subarea equity: The Sound Transit Board will discuss the revenues and costs for each project, and will decide if the service would benefit the whole region even if the subarea costs are more than revenues.

Existing rail service: There are four Sounder trips per day now between Everett and Seattle. The Board would need to decide if the proposed options provided enough additional service to be worthwhile.

Ballard to Downtown Seattle corridor: Chris Rule, Transportation Planner at Sound Transit, summarized the study. This corridor would be a partnership with the City of Seattle. It is now served by a King County Metro Rapid Ride line, but travel times to reach downtown are unpredictable and could be significantly improved. The study looked at light rail and rapid streetcar. The streetcar would be more flexible but would still have enough exclusivity to be considered high-capacity transit. One challenge in this corridor is having water on both sides (Lake Union and Elliott Bay), the need to cross a navigable waterway (Lake Washington Ship Canal), and the 400-foot-high Queen Anne Hill. Sound Transit initially evaluated eight corridors, then based on feedback, did further evaluation on five corridors. For crossing the Ship Canal, these included a tunnel option and a 70-foot movable bridge option. The corridors included several variations on the alignment and communities to be connected.

Responses to Panel Questions

Connection to downtown Seattle: This study terminated close to Westlake Station to connect to the existing downtown transit tunnel. The options A, B and D all have an underground connection to Westlake Station. In the South King County study, there is an option for a new transit tunnel downtown with one option to connect to Ballard.

Downtown Transit Tunnel: The peak tunnel load would be for northbound PM service to the University District. It is a challenge to add operational capacity to the Downtown Transit Tunnel. The options included in this study assume riders from Ballard could transfer at or near Westlake, and many could walk to their destinations. Tunnel alignments are generally most costly to build and to operate.

South King County corridor: Val Batey, Senior Transportation Planner at Sound Transit, summarized the study. It looked at a corridor including West Seattle and the South King County area that is closest to Seattle. Sound Transit began with 25 corridor alignments, and narrowed to six for further study, including light rail, BRT, and a combination of both. Several options were considered for downtown Seattle, including a new tunnel on 4th Avenue, or a service couplet on 4th-5th Avenue to connect to the SODO neighborhood.

Responses to Panel Questions

Demographics: The corridor has characteristics supportive of transit ridership, including large low-income and minority populations. There is currently high bus ridership in the corridor. The area has grown substantially in population numbers and diversity in the last decade.

Corridors included: The study originally was to review connecting downtown Seattle to West Seattle, with Burien, Tukwila and Renton. However, during the study, the review expanded to include also South Park and Georgetown, given their growing population. The reason for including Renton is that it includes the end of the regional growth area, is close to the Boeing Renton plant, and is an area projected for growth in population and employment. An option from Renton includes a transfer at Tukwila International Boulevard light rail station. The line to Renton could also serve Southcenter. At one time, the owners of Southcenter shopping mall were not interested in having a light rail stop nearby, but they are now interested. The City of Tukwila is also planning for more residents in the vicinity of Southcenter and would like better connections to the regional system. In West Seattle, the reason for including a Delridge option is that it is a low-income and minority area; the Alaska Junction option recognizes that it is an urban growth area.

Tunnel: The system planning work now underway includes looking at options that do not require digging a new tunnel downtown, such as ending at or near the International District Station. This would lower the cost.

Environmental justice: Environmental justice is not called out in the evaluation results as it was not a criterion for these studies. It is included in the SEIS.

Comparison diagram: The costs of B2 and B4 are significantly different because B2 is mostly on the surface and uses the existing West Seattle bridge, while B4 is extensively in a tunnel and would require a new bridge. The ridership difference between these two options relates to the difference in travel time for the downtown to West Seattle portion.

Panel Comments

Are tunnels safer than bridges in a seismic event? If so, how can this be monetized? Can rail be attached to the West Seattle Bridge?

Federal Way to Tacoma corridor: Eric Chipps, Senior Transportation Planner at Sound Transit, summarized the study. This corridor goes south from the Federal Way Transit Center, crossing the line between King and Pierce counties, and ending at the Tacoma Dome Station. Federal Way Transit Center currently has bus service and parking; Tacoma Dome includes regional ST Express Bus, local buses, and Sounder commuter rail. Amtrak service will come to this station in approximately three years. This corridor is 10-miles in length and includes the City of Fife, which includes many office buildings. It is a congested area, especially in the I-5 "elbow" at Fife. There are casinos on either side of I-5, which are 24-hour generators of traffic.

Sound Transit studied seven alternatives, including light rail along Highway 99, along I-5, and crossing over, and BRT on I-5 with direct access to the Tacoma Dome Station. The light rail options assume that light rail is extended south from S. 200th to Federal Way. The alternatives on Highway 99 are mostly elevated, with an exception on the surface near Fife in Alternative 3. The I-5 alternatives are mostly elevated. The evaluation matrix shows the alternatives to be similar to each other. The options on 99 are slightly faster and have better potential for ridership. The I-5 options are a little longer with somewhat lower ridership but lower cost. The center of 99 option is higher cost because of power lines and activity in the area. The BRT alternative's ridership is lower with the transfer at Federal Way, but the cost is significantly less.

Responses to Panel Questions

Location: Milton, on the east side of the freeway, is designated for growth. The north side of Fife is more commercial, the south is more residential. Access to the casinos would be by existing roadways. For the BRT alternative, Sound Transit assumed pedestrian overpasses, and a park-and-ride and overpass on the south side.

Convenience and travel time: The light rail could offer a one-seat ride to the University of Washington, which could bring new riders. It would decrease travel time from downtown Seattle to Tacoma.

Parking: The model does not predict parking demand. There is additional capacity at Federal Way, but the parking at Tacoma Dome Station is full. There would be parking at Fife. It may be possible to develop a partnership with the tribe for parking at the casino. Partnership development would come later in the planning process.

Panel Comments

There is potential near the Tacoma Dome to build another parking garage.

Central and East corridors: Andrea Tull, Senior Project Manager at Sound Transit, summarized the studies. This set of corridors includes one within Seattle, one between Seattle and East King County, and several within East King County.

- Ballard to University District: Sound Transit looked at several BRT and light rail alternatives. There were trade-offs in speed/reliability and cost.
- U-District to Kirkland to Redmond on SR 520: Sound Transit looked at light rail and BRT. The
 corridor has a number of constraints, including space in the University of Washington area,
 seismic concerns, an Indian burial ground, and the need for additional pontoons for the 520
 bridge. The bridge is being replaced now and will have HOV lanes for transit. It would need
 additional lane space and support pontoons to accommodate light rail. The bridge has been
 designed to be expanded to accommodate a light rail line.
- Eastside Rail Corridor: The Eastside Rail Corridor (ERC) is a rail-banked rail corridor. It will be preserved for potential future rail operation through the implementation of a multi-use plan. Local jurisdictions are designing corridor improvements to accommodate a pedestrian trail and high-capacity transit. Sound Transit owns a mile of the corridor in Bellevue and has a high-capacity transit easement on the entire corridor in King County. Light rail, commuter rail and bus rapid transit options were considered on the corridor between Woodinville in the north and Renton in the south. The corridor connects the Totem Lake, Bellevue and Renton regional centers.
- *Kirkland-Bellevue-Issaquah:* This study evaluated ways to connect Totem Lake, in north Kirkland, to Bellevue and Issaquah. Options considered operate along the Eastside Rail Corridor and connect to East Link at Hospital Station in Bellevue, which is part of the ST2 East Link project. Connecting to East Link at the Bellevue Transit Center presents grade and siting challenges. A light rail alignment would follow Richards Road, then transition to the median of I-90 in the vicinity of Eastgate and continue east to Issaquah, where it would serve the Issaquah Transit Center. An option would extend to Issaquah Highlands. The BRT alternative generated higher ridership because it enables an easier transfer to light rail into Seattle at the South Bellevue light rail station.
- BRT on 405: WSDOT and Sound Transit worked together to develop this option, based on the I-405 Master Plan which identified BRT as the preferred mode. BRT operation could be a single route or trunk-and-branch routes. The study evaluated direct HOV lane/express toll lane access projects and other components to improve transit speed, reliability and access in the corridor. Tolling on 405 will start this fall between Bellevue and Lynnwood.

Responses to Panel Questions

Ridership: The evaluation compares ridership among options in the particular corridor, not including the rest of the system. However, it did assume that the ST2 program has been completed.

Tolling: The toll on 520 varies by time of day. The price on I-405 will be driven by the traffic volume, that is, by demand.

Eastside Rail Corridor: This is a complex corridor, with street crossings and some encroachments. There is interest in transit in the corridor, especially between Totem Lake and Bellevue.

University of Washington connection: The Montlake area near the University of Washington is very constrained. Light rail would not be able to connect directly into University Link line.

Local interest in other studies: This set of studies is complete. However, local jurisdictions have expressed interest in studying shorter segments, such as Bellevue to Totem Lake, and other modes.

Ballard connections: University to Ballard was not part of ST2, but as part of the planning for ST2 there was consideration of a Sounder station that would have connected Ballard to downtown Seattle. That plan was later eliminated from ST2.

Welcome and Thanks

Amy Scarton, Assistant Secretary for Community and Economic Development at WSDOT, thanked panel members on behalf of Secretary Peterson, the Governor and the Legislature. She said that WSDOT has a robust Public Transportation Division, partnering with local transit agencies, freight rail, passenger rail, and local jurisdictions to encourage biking and other modes of transportation. Model integration is particularly important to the Secretary. The Secretary is following the three counties' interest in expanding the Sound Transit system and looks to the Expert Review Panel to help provide advice on the system plan elements. Sound Transit is a trusted partner and has a good reputation with residents.

Assistant Secretary Scarton summarized her own background in law and transportation, including as Transit Counsel for the U.S. House of Representatives. She noted that the State Legislature is considering a transportation package, with the details still being worked out. Assistant Secretary Scarton hopes to attend future panel meetings as they fit with her schedule.

2015 System Planning Efforts

David Beal summarized Sound Transit's system planning work in light of the regional growth forecasts of PSRC (see meeting presentation, "Why we live here"). The forecasts show significant population growth by 2040, with the highest at 74 percent growth in Everett and 60 percent in Tacoma.

Mr. Beal summarized staff presentations to recent Sound Transit Board meetings on the Long-Range Plan update. Mr. Beal reviewed the core priorities, developed in part from public input in the planning process, and how these priorities are guiding the development of system expansion scenarios. The aim is to have a Draft System Plan by the end of December 2015 to take out for review by partners and the public in January 2016. State law says the Board has to consider a "Do Nothing" scenario and a low-capital option that would focus on maximizing the current system.

The Board established core priorities for the system planning work, including: completing the light rail spine, ridership, connecting designated centers, socio-economic equity, integration with other transit

operators/systems, multi-modal access, promoting transit supporting land use and TOD, and advancing logical next steps. The Board has said that completing the transit spine is a top priority, with Link light rail as the preferred mode. For other areas, BRT and rapid streetcar are options. Rapid streetcar has good capacity and reliability but requires political will, as it takes up two traffic lanes. Mr. Beal reviewed the conceptual system expansion scenarios presented to the Board in April. They varied from incremental expansion to completing most of the spine with additional corridor investments, coupled with no new revenue authority to full revenue authority. The Board liked Scenario 4 because it not only would complete the spine but also serve several other high-priority areas. For the May 28 Board meeting, the staff will provide comparative evaluations of the scenarios.

Responses to Panel Questions

Demographics of growth: The projected population growth is one-third from births and two-thirds from immigration. There will be just under 1 million new residents in the Sound Transit service area, and approximately 1 million new jobs.

Mode trends: Although Millennials currently seem to favor multi-modal transportation, it is not clear whether this is a permanent value shift or will change as the young adults have families. Even if only half drive cars, there will still be a large and growing population interested in transit. The Express buses are already crowded. Recent surveys have documented public support for expanding transit in the region.

Financial planning: The planning at this point has developed only high-level cost estimates. The scenarios were developed at four different funding levels, each with a project list. More detailed cost estimates come later. At that time, subarea equity will be considered.

Legislative request: Sound Transit developed the \$15 billion estimate for the Legislature based on what one mile costs for different modes (elevated light rail, tunnel, BRT, etc.). The \$15 billion is what it will take to complete the transit spine, do two projects in Seattle and one on the Eastside, and include transit centers and the fleet. This \$15 billion is new revenue over 15 years.

Operating costs: Staff will provide information at the next meeting about the costs of operating the system for the next 20 years. Sound Transit is one of only a few transit agencies with a real capital replacement fund.

Sales tax: The sales tax for ST2 will not expire during the ST3 time frame.

Planning logic: The scenarios need to be consistent with what is already developed or in the Long-Range Plan. For example, with the East Link developed in ST2, an extension to Issaquah could be considered in ST3.

New technology: Staff have not yet looked at ways technology could help increase capacity. There is an Innovation Fund that could be tapped for this purpose.

Acceptance of streetcar: There is some opposition to a streetcar since it runs at the street level and takes up traffic lanes.

Subarea equity: The scenarios presented to the Board include projects in each subarea. The Board will need to decide if/how the projects benefit each subarea from an equity perspective.

Extension to Tacoma: Scenario 4, which extends light rail to the Tacoma Dome Station would be Link Light Rail, not the type of light rail used for Tacoma Link.

Panel Comments

By 2040, there will be a very large increase in the number of seniors in the population. As people age, they use transit less or use it differently.

Analysis Methods

Karen Kitsis reviewed the analyses Sound Transit will conduct. State statutes require reports describing the assumptions and methodologies (RCW 81.104.100). Sound Transit will update their financial analysis methods, and will include reasonable estimates for operation and maintenance. Other methodologies include ridership forecasting and financial modeling, which Brian McCartan will discuss at a future panel meeting.

Wrap-up and Next Steps

Mr. Howell directed panel members' attention to the "Look Ahead" sheet under Tab 1, which lays out a rough schedule and topics for future meetings. He provided a list of items or information panel members requested during this meeting, as follows:

- 1. Sound Transit system access policies and information on how riders access the system (walk, bike, car).
- 2. City of Seattle parking policies for current and potential stations. More broadly, any municipal policies and code elements on zoning and parking to support the type of transit-oriented development the Sound Transit Board wants to achieve.
- 3. The mechanism to negotiate with jurisdictions to capture the increase in property value from transit. The use of tax increment financing and LID was discussed. Panel members would like a legal update on these methods.
- 4. How cost control relates to long-range growth. This could be a topic for Brian McCartan.
- 5. Would like to have a poster-sized version of the charge to the panel to be displayed at each meeting for easy reference.
- 6. Information about the system impacts if trains operate at slower speed in Redmond, and comparison of ridership for different travel times to run at Redmond's planned travel speeds.
- 7. Interest in seeing the results of the random public survey.
- 8. Travel time questions for the high-capacity studies, including comparing automobile travel time and modeling congestion.
- 9. For ridership forecasts, what is the new transit ridership vs. total ridership.

- 10. Regional population and job forecasts, with demographics for population forecasts. Perhaps someone from PSRC could come to a future meeting to address these questions.
- 11. Revenues generated within each subarea, and capital loans between subareas.
- 12. A map of the subareas.
- 13. The cost of a new downtown Seattle tunnel.
- 14. Sufficiency of park-and-ride capacity for the projected new ridership.

Mr. Jacobson listed topics for the next panel meeting, as follows:

- Financial planning process
- Ridership forecasting, with comparable auto speeds, whether the model is constrained for parkand-rides, feeder buses, other access modes, how many riders are new to transit
- Travel forecasting distribution patterns, where riders move to and from today and will in the future
- Financial estimates and subarea issues
- Evaluation methodologies and measures
- Invite a representative from PSRC to present information on employment, population growth in centers, land use projections, job-housing balance

The panel also had some interest in looking at alignments. It was suggested that this be done using Google maps for an aerial perspective, rather than a tour.

Mr. Howell said that information will be coming on possible dates for the next panel meeting, tentatively to be in July.

Dr. Siim Sööt presented some thoughts on fundamental questions on ridership levels, jobs and population forecasts. Referring to Tab 5, pages S3 – S4, he said that today in the region, there are 2.8 million people and 1.5 million jobs, so 53.6 percent of the population is working. Seattle is one of the cities, along with Washington, D.C., and Atlanta, where the workforce is greater than 50 percent of the population. In New York, Los Angeles, Pittsburgh and New Orleans, the percentage is less than 45 percent. Nationally the average is 46.5 percent and declining. Male workforce participation is declining; female workforce participation went up but is now declining.

The 2040 projections for the region are for 2.5 million jobs in a 3.7 million population, which works out to 67.6 percent employment. Multiplying 3.7 million people times the current 53.6 percent employment means 2 million jobs. So the projection is for an additional 500,000 jobs.

Currently 116,000 people commute from Snohomish County to King County, and 84,000 from Pierce to King. The projections would mean an additional 100 thousand people would be commuting in the region. Dr. Sööt would like PSRC to explain the 2.5 million jobs and help the panel understand what this means in terms of transit needs.

Comments from the Public

William Popp from the Eastside Transportation Association spoke on his concerns with Sound Transit's bus/BRT transit analysis. He is a transportation engineer and has worked for transit agencies and governments. He questioned the practice of discontinuing express buses and instead directing riders onto light rail. Riders who have a direct ride now would have to transfer from bus to light rail. He questioned Sound Transit's assumption that highway drive times will deteriorate a certain amount per year. He said that the experience of putting light rail into the bus tunnel in Seattle showed that the travel time per trip was not faster, but BRT was not tested. The PSRC's forecast for 2040 suggests that the light rail planned will exceed the capacity of the tunnel.