

## Expert Review Panel for Sound Transit Phase 3 (ST3)

### SUMMARY OF MEETING

February 8 – 9, 2016

Courtyard Marriott Hotel, Seattle, WA

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

**Panel member absent:** Richard Walker

**Presenters:** Stephanie Ball, Val Batey, David Beal, Ric Ilgenfritz, Karen Kitsis, Kathy Leotta, Brant Lyerla, Brian McCartan, Peter Rogoff, Chris Rule, Brian Stout, and Lisa Wolterink of Sound Transit; Mike Morrison (Value Management Consulting); Mark Simonson (Puget Sound Regional Council)

**Members of the public who commented:** Neil Ichiki, Will Knedlik, Dick Nelson, John Niles, Bill Popp, Jan Young

## MONDAY, FEBRUARY 8, 2016

### Welcome and Follow-up from November Meeting

**Chair Jim Jacobson and Administrator John Howell**

- Summary of panel activity since the panel's last November 2015 meeting:
  - **Comment letters.** The panel sent two letters of comment (11/25/15 and 1/21/16) to appointing authorities. The first addressed four issues: (1) confirmed soundness of capital, and operation and maintenance (O&M) practices; (2) requested more specifics on bus-rail integration; (3) suggested asking local jurisdictions for agreement on projects' scope; and (4) noted lack of information on the benefits of projects recently added to the list. The second letter addressed other issues from the November panel meeting.
  - **Sound Transit December 3 Executive Committee.** Mr. Jacobson and Mr. Howell attended the committee meeting and presented the panel's November 25<sup>th</sup> letter.
  - **Conference calls.** Subgroups of panel members held conference calls in January on ridership forecasting and financial plan issues.
  - **Consultant review.** The panel hired Value Management Consulting to review Sound Transit's capital cost estimating methodology.
- This meeting focuses on Sound Transit's responses to the panel's questions and other timely issues.

### Update on Activities Since the Last Panel Meeting

**Ric Ilgenfritz (Sound Transit)**

See presentation slides, "Expert Review Panel, February 8, 2016." Additional information and responses to panel questions were as follows:

- **Segmenting longer projects.** The proposed north and south light rail projects would be constructed in phases, with each phase brought into operation while the next phase is being constructed.

- **Changes now in future light rail corridors.** In response to management direction to seek ways to enhance service in the short-term in the future light rail corridors, Sound Transit is exploring potential investments in additional or BRT or express bus improvements. Their focus is on capital projects to improve express bus service, such as right-of-way and signal improvements.
- **Project scheduling.** Sound Transit has general assumptions on how long each phase of a project will take. The risk assessment workshop started considering how the schedules will work together, and considering both agency and industry capacity for major construction on multiple projects.
- **Letters from jurisdictions.** The main theme in the letters is a strong desire to see high-capacity transit, but also that there is a mobility crisis today.

*Panel comments:*

- **Phasing vs. immediate relief.** There is experience nationwide on the balance between the size of project an agency can take on and the efficiencies in doing many parts at once. For some building projects, phasing is more expensive than building whole. However, some residents may be discouraged by a 25-year or longer timeline when they see a strong need for transportation solutions now.
- **Investments in service improvements.** Several panel members suggested that Sound Transit should consider funding new or expanded services, as well as capital, if they wanted to achieve real short-term benefits.

**Discussion with Sound Transit CEO Peter Rogoff**

- **Appreciation.** Mr. Rogoff thanked the panel members for their time and providing their expertise and comments to make ST3 a better package to bring to the public.
- **Impressions.** Mr. Rogoff is impressed with the Sound Transit Board’s strong sense of purpose and regional thinking. The elected officials from the major cities and the three county executives on the Board can bring the cooperation needed to help Sound Transit deliver projects. The partner jurisdictions and transit agencies are also actively engaged. Sound Transit has a very high-functioning staff that knows the region and process well.
- **Dashboard idea.** Mr. Rogoff would like to use a practice used at the federal level of a “permitting dashboard” to get all partners to agree on a schedule for their part of the permitting process for each project. When done at the beginning of the planning process, this practice has helped projects move faster and more transparently for both planning and construction.
- **Growth patterns.** The projected growth in the Sound Transit area is higher by percentage in Bellevue and Tacoma than in Seattle, but the construction and land use decisions in Seattle will bring increased employment and population to the core urban area. There is need for transit both between suburban communities and in and out of Seattle.
- **Project phasing.** A challenge in opening the light rail system in phases is to feed passengers to a station that will not be a terminus in the full build-out. Sound Transit is working with King County Metro on this now for the University Link station at Husky Stadium that will open in March. Metro will revise bus routes in the area to stop at this station.

- **Capacity.** With ST3, Sound Transit will be expanding construction in all four directions at the same time, while there are also 10 years more of ST2 work to complete. The agency will look to maintain expertise and its culture of excellence over time.

### **Independent Review of ST3 Cost Estimates**

**Mike Morrison (Value Management Consulting, LLC)**

See presentation slides, “Revised Draft Report for the Expert Review Panel for the Assessment of Cost Estimating Methodology and Sample Cost Estimates for Sound Transit ST3 Projects.” Additional information and responses to panel questions were as follows:

- **Scope.** The panel hired Mr. Morrison to provide outside review of Sound Transit’s cost estimating methodology and 11 individual projects. He did a similar review for the ST2 Expert Review Panel.
- **Assessment of methodology.** Sound Transit’s methodology follows many good practices and industry standards, draws on their experience with Sound Move and ST2, and is credible.
- **Suggestions.** Mr. Morrison made a number of suggestions for clarity and consistency (detailed in his presentation).
- **Bus-rail integration.** This integration needs to be part of and called out in station projects. Sound Transit has added it to the project templates.

### **Light Rail Operations**

**Val Batey and David Beal (Sound Transit)**

#### **Downtown Seattle Transit Tunnel**

See presentation slides, “ST3: Downtown Seattle LRT – Alternative Through-Routings and Alternative Operating Plans.” Additional information and responses to panel questions were as follows:

- **Capacity constraints in the downtown tunnel.** The high-capacity transit studies identified that bringing the projected level of light rail through downtown Seattle would pose challenges in the current tunnel, especially to keep headways under six minutes. Staff identified three options for transit downtown, and looked at the pros and cons of each.
  - **Option 1.** The key disadvantage is an extremely long running time for Everett to Tacoma (120 minutes). It would likely require eliminating parking on 1<sup>st</sup> Avenue in downtown Seattle to run a West Seattle – Ballard line at grade, and the line could share the right-of-way with the new Center City Connector Streetcar.
  - **Option 2.** This option still uses a long Everett to Tacoma line, but puts the West Seattle – Ballard line into a new, separate downtown tunnel with connections to the existing tunnel at the International District and Westlake stations. Since West Seattle – Ballard would have a smaller ridership, using a separate tunnel would allow this line to use smaller vehicles and stations. This tunnel, as well as the one included in Option 3 below, would be at a lower level than the existing one due to physical constraints. The tunnel would be perpendicular and below the existing Downtown Seattle Transit Tunnel at Westlake. In the project sheets, the cost of the tunnel is applied to the Ballard project, although it could serve both Ballard and West Seattle.

- **Option 3.** This option, called “Spine Segmentation,” has advantages of: shorter light rail lines, each with 90-minutes running time; balancing ridership through downtown Seattle; reduced number of maintenance facilities needed; more potential to use automated trains in the future; and more operating flexibility. Disadvantages include fewer one-seat rides, and the need for four-car trains throughout the system. The option would have connections between the two tunnels at the International District and Westlake stations.
- **Automating trains.** One area where trains could not be automated using existing technology and regulations is the Rainier Valley.
- **Totem Lake – Issaquah.** The staff has not yet examined how the alternatives for Totem Lake to Issaquah would affect capacity for the tunnel.
- **Maintenance facility costs.** The key cost for a maintenance facility is in siting/right-of-way, rather than in operations.
- **Bellevue maintenance facility.** Under an interlocal agreement with the City of Bellevue, Sound Transit will have a consultant do a transit-oriented development (TOD) analysis of the maintenance base property and the site to the east. Such development could be housing or mixed-use development.

*Panel comments:*

- **Tacoma-Everett.** This corridor configuration would be very long, with the likelihood of operating problems if a delay occurred anywhere along the length.
- **Tunnel.** A new tunnel would increase the construction cost and time. Other cities have had success operating light rail at grade.
- **Options.** Perhaps Sound Transit should consider a hybrid Option 4.
- **Presentation.** The summary tables, while designed to meet Federal Transit Administration (FTA) requirements, lose the key details. It is difficult to see how the operations would change in each area.

**Skip-Stop or Express Service**

- **Requirements for skip-stop.** Transit systems in the world that use an A/B system (skip stop) mostly do not use it all the way along the line, since one of the two services would end up being overcrowded and would cause delay. Most have multiple stops in a row of one type so that by the end of the line, the two services are equally balanced. To provide this configuration, there need to be at least three tracks so that trains can pass. For tunnel and aerial alignments, adding a third track is very expensive.
- **Requirements for express.** Express service is where a train makes stops in the most densely populated areas, then goes directly to an outlying station. Doing so means passing three or four all-stops trains, which requires a total of four tracks—two in each direction. This is very expensive. A four-track tunnel system would cost \$500,000 per mile; a four-track aerial system would cost \$150 million to \$200 million per mile.
- **Space available.** In some corridors, such as along highway right of way, there is room for only two tracks.

- **Demand.** Looking at the passenger demand to 2040, Sound Transit believes that a two-track system can provide the needed service.
- **Seating and bicycle space.** Staff are looking at ways to get more seats in vehicles on routes with longer trips. A policy question is whether to provide space for bicycles on trains or lockers at stations.

*Panel comments:*

- **Benefits to ride.** To attract passengers, there needs to be a big enough benefit to riding transit instead of driving. A panel member suggested that if there is an opportunity to acquire additional right of way in a corridor so as to add a third or fourth track, Sound Transit should seriously consider it.
- **Cost-benefit analysis.** Most transit agencies that use skip-stop or express rail service developed these systems 100 years ago when land was not so costly. It would be interesting to estimate the cost to double-track part of the system and the benefits in minutes for a rider's trip, then to identify what the system would need to give up in order to achieve that benefit.

## **Operations and Maintenance Cost Comparison**

### ***Stephanie Ball (Sound Transit)***

See presentation slides, the first of which is titled "Sound Move Planned Service." Additional information and responses to panel questions were as follows:

- **ST Express bus.** The ST2 platform hours for ST Express were 100,000 above the total to be implemented for Sound Move. As of 2014, Sound Transit had achieved the hours promised for ST2 and, starting in 2016, expects to deliver more annual hours than proposed in ST2.
- **ST2 planned implementation.** For both Sound Move and ST2, the hours of service were planned to increase in "stair steps" up to full implementation.

*Panel request:*

- **Graphs.** The panel would like to see the graphs of Sound Move and ST2 service showing the stair steps of the expected implementation, along with the actual. The panel would like to see if Sound Transit has implemented the service as it expected to do.

## **ST3 Finance Plan**

### ***Brian Stout (Sound Transit)***

See presentation slides, "ST3 Update," with the first slide titled "ST3 Financial Planning Update." Additional information and responses to panel questions were as follows:

- **Purpose.** The presentation was intended to answer the panel's earlier questions about the capital replacement reserve.
- **Use of replacement reserve.** Sound Transit has been saving 1.5 percent per year of the capital program, but has not yet needed to start using the 1.5 percent from Sound Move.
- **Capital replacement forecast.** Once there is a system plan for ST3, staff will create a capital replacement forecast, and will balance replacement with the revenue forecast in the financial plan.

The Operations Planning group reviews each asset every three years. FTA gives general guidelines on the length of time they think an asset will be useful, and recommends having a replacement plan but does not provide specific direction.

- **Peer comparisons.** Sound Transit staff are in communication with peer agencies on ways to extend the life of buses. Peer agencies estimate the bus life at 12 years or 500,000 miles. So far, Sound Transit has gotten more service in the 12 years (750,000 miles), but some are highway miles, which are less demanding on the equipment. Light rail assets have a 30-year life, commuter rail have 30 years, and streetcars have 25 years. Tacoma Link is considered a streetcar by the federal classifications.
- **Estimated tax per typical household.** The \$151 per household is only for ST3; with Sound Move and ST2, the cost for a typical household is \$423.
- **Inflation indices.** Sound Transit uses inflation indices developed by Parsons Brinckerhoff based on actual construction costs.

*Panel comments:*

- **Cost per household.** When explaining the cost per household, Sound Transit needs to be clear about the total cost that includes Sound Move, ST2 and ST3, and also to say that it is a cost per year.
- **Potential savings to households.** Another part of the story is that there is a potential cost savings for households that are transit users.

### **Panel Questions on Planning Activities, Project Scopes and Budgets**

Panel members asked a number of questions based on their review of the proposed projects book that was provided to the Sound Transit Board. The following summarizes the staff's answers.

- **Distance from station for assessing different factors.** Sound Transit uses up to one-half mile from a station to assess walking and biking access, and 1 mile from a station for TOD purposes to identify nearby services a transit rider might use, such as grocery stores or banks. Where there are major employers nearby, Sound Transit considers other benefits, such as regional growth centers. However, ridership estimates are network-based and predict trips from a wider area, not just one-half or one mile.
- **TOD distance.** Any property Sound Transit owns near a developing station, and where the agency would have TOD activities, is usually within one-half mile. If Sound Transit had surplus property at a greater distance, the Board could direct staff to do a TOD project.
- **Identifying access problems.** At the earliest stages of planning, the number of residents and employees with convenient station access is currently judged by distance rather than actual walking or biking route. So it would not take into account major barriers, such as lack of a bridge across a highway.
- **Alignment for West Seattle.** The map in the proposed project book is a summary and the alignments are representative for estimating cost. The South King County High-Capacity Transit (HCT) Study looked at a variety of ways to travel from downtown Seattle to West Seattle and south. Alaska Junction was included because it is a designated center in regional planning, and it is a

priority for transit to connect these centers. In choosing alignments, Sound Transit will need to balance connecting as many centers as possible with cost effectiveness.

- **Kirkland – Bellevue BRT.** Sound Transit believes the Wilburton station could accommodate the route. It might be possible to have a change order in ST2 to help build a spur to the south.
- **Totem Lake – Issaquah light rail.** The ridership forecast for this service assumes there is also BRT on I-405.
- **Bus-rail integration.** Sound Transit has chosen station locations on the light rail path based on areas with a high opportunity for transfers from local transit. They are working with transit partners to refine these locations.
- **Systemwide projects.** In corridors where there is an opportunity to expand, the systemwide candidate projects identified for ST3, such as the R-05 System Access Program, could apply to an ST2 or an ST3 station. R-05 includes access projects related to bus-rail integration, such as transit signal priority, as well as walk/bike access.
- **TOD Fund.** All station projects include a due diligence for TOD on surplus property, which is included in the station cost estimates for remediation. The TOD Fund is for extraordinary costs for TOD such as hiring a consultant to achieve multiuse development. There is \$500,000 each estimated for 30 stations. The Legislature in the last session directed that Sound Transit make available 80 percent of the surplus land that is suitable for housing to nonprofit low-income housing providers.
- **Alternative energy.** Sound Transit’s design manual includes using solar panels on station roofs and right-of-way in places where this would make sense.

*Panel comment:*

- **Identifying access.** Consider an evaluation measure of actual 12- to 15-minute walk time to a station.
- **TOD.** A TOD study in congested areas should include assessing the potential to include decks for parking and investigating nearby properties to lease or trade for parking.

## **Public Comment**

### ***Jan Young, Kirkland resident***

- Ms. Young is a member of Save Our Trail, which is pro-transit but wants to direct transit away from the Cross Kirkland Corridor (on the Eastside Rail Corridor) and onto I-405.
- She said that putting transit on existing major corridors, such as a highway, is cost efficient.
- She noted that over 15 years, the cost per household proposed for ST3 would be more than \$10,000, and said this will be difficult to sell to voters.
- Ms. Young said that Sound Transit needs to consider the environmental impact and cost in the ST3 project, and noted that the Eastside Rail Corridor through Kirkland includes more than 10 wetlands and creeks.

### ***Bill Popp, Transportation engineer***

- Mr. Popp was concerned that there is a lack of serious bus alternative planning by Sound Transit, and suggested that the panel should ask about this.

- He noted that six-minute headways for light rail would mean 10 trains per hour, with a total of 5,760 passengers, while buses on I-5 HOV lanes could carry 6,000 to 7,000 passengers per hour. Given the rail volume for Lynnwood, the tunnel capacity will be at the maximum by 2035.
- Mr. Popp said that putting parts of the light rail system at-grade, and not running express trains, will make it a low-capacity line.
- He also noted that changing the downtown Seattle tunnel to rail only will be a blow to bus riders.

***Dick Nelson, Transportation analyst and Seattle resident***

- Mr. Nelson stated that state law requires least-cost planning for all regional transportation plans. Sound Transit’s plans could be challenged if this requirement is not met.
- He said that Puget Sound Regional Council (PSRC) must certify regional transportation plans, and Sound Transit must identify all least-cost alternatives for that certification. He is concerned that Sound Transit has evaluated only light rail in many corridors, such as Ballard to University District, where a bus alternative would be less costly.
- Mr. Nelson offered three recommendations:
  1. Ask Sound Transit to revise the methodology to use least-cost planning.
  2. Present the outcome to the panel and public.
  3. Make sure all plans put before voters are consistent with least-cost planning.
- He will provide other comments in writing.

***John Niles, Transportation analyst***

- Mr. Niles said that Sound Transit should provide the no-build alternative and that it is important for voters to know what would happen if they vote No. He noted that the no-build alternative was not detailed during the ST2 ballot campaign.
- He said that the description of the no-build alternative should say that Sound Transit would lose staff.
- He said Sound Transit should also examine in ST3 planning what the impact on ridership could be of driverless cars, such as are being tested in some cities.

**TUESDAY, FEBRUARY 9, 2016**

**Review of Letters Received from Jurisdictions/Agencies**

***Karen Kitsis (Sound Transit)***

See presentation slides, “Sound Transit 3: Briefing on Letter Responses.” This was a presentation to the January 28, 2016, Sound Transit Board meeting. Additional information and responses to panel questions were as follows:

- ***Public outreach using phone or online technologies.*** Sound Transit has done some online public meetings for particular projects, but has not done a telephone town hall of the type done for transit in San Diego, and done recently by the City of Seattle about affordable housing. Ms. Kitsis will talk with outreach staff about the possibilities.

- **Request to jurisdictions.** The letters asked for jurisdictions' comments on the proposed projects but not for concurrence, since the projects are still representative. In the south, there are still several corridors under consideration.
- **Federal Highways Administration response.** The letter does not oppose the project but notes that opportunities for TOD can be limited along highways.
- **Ridership and stations.** Stations at 130<sup>th</sup> and 220<sup>th</sup> (mentioned in the City of Lynnwood's letter) were identified for environmental review in the ST2 program but were not included as part of the preferred alignment. Sound Transit has identified the ridership for these stations that might be attracted to another station. The preferred alternative was identified in the ST2 National Environmental Policy Act (NEPA) process for Lynnwood.
- **Level of engagement.** There has been more interest and comment from cities so far in the ST3 process than there was in ST2. The level of response is especially impressive given that the response needed to be done in late December/early January. Kirkland has hired a consultant who has asked for meetings with Sound Transit. Bellevue and Renton created their own proposed alternatives. Seattle staff meets with Sound Transit staff biweekly. Tacoma and Everett staff has been actively engaged with Sound Transit staff.
- **Questions on ridership.** Sound Transit staff have met with the jurisdictions who had concerns about the ridership estimates, and have reviewed with them the sources Sound Transit is relying on. Sound Transit will correct any technical errors. Many of the jurisdictions' comments were to advance a preference among potential projects, rather than questioning the methodology.
- **Information for the Board.** The presentation on the letters gives highlights of themes from the letters. In addition, the staff is briefing Board members on the comments from agencies in their area of the district. Staff will brief the Board on any changes they make to the project information that arise from the jurisdictions' letters.
- **Environmental review process.** The State Environmental Policy Act (SEPA) review was part of Sound Transit's Long-Range Plan in 1996 and supplemented in 2014. Sound Transit has tried to link its planning with NEPA/SEPA requirements, and has discussed this with the FTA. Sound Transit's core priorities go back to the 1996 Long-Range Plan; the 2014 update adds TOD and social justice considerations.

*Panel requests and comments:*

- **Letters from jurisdictions and organizations.** The panel requested copies of any other comment letters that Sound Transit has received since the January 28 Board meeting. In particular, a panel member wanted to know if a letter from the City of DuPont has been received. The panel also asked if there had been letters from the Greater Seattle Chamber of Commerce, the Downtown Seattle Association, or other business associations.
- **Environmental review.** It is challenging to link planning and environmental review, and achieve the steps needed in initial project evaluation, selecting a preferred alternative, getting the concurrence that is needed at each stage, and presenting a full package to voters in the fall.

## Ridership Forecasting

### PSRC Forecasts

#### *Mark Simonson (PSRC)*

See PSRC presentation slides titled “Sound Transit Expert Review Panel, February 9, 2016.” The presentation responded to the questions in the panel’s January 21, 2016, letter. Additional information and responses to panel questions were as follows:

- **Removing Resource/Construction jobs from model.** PSRC removes these jobs from land use inputs for transit modeling because the jobs do not stay in one place, so are not useful in building a transit model. These workers also tend not to be heavy transit users. While there may be many such jobs now because of growth, that might or might not be the case by 2035 or 2040.
- **Effects of 2008 recession.** There has been a bounce-back in jobs since the recession, but the trajectory is still not what it was in the 2006-07 forecasts.
- **Employment forecast.** The projected employment of 2.5 million by 2040 in Sound Transit’s Supplemental Environmental Impact Statement (SEIS) was based on PSRC’s old, pre-recession targets and model, and may be for the Sound Transit area only, rather than the four-county area for which PSRC creates forecasts.
- **Employment growth in South Lake Union.** This growth is allocated to Sound Transit’s Queen Anne district, rather than to Seattle Central Business District (CBD).
- **Least-cost planning.** PSRC takes least-cost planning into account.

#### *Panel requests and comments:*

- **Construction jobs.** Building cycles go through a boom and bust. Construction is booming now in some parts of the Sound Transit area, but might be booming in different parts of the area in 2040. However, it is not a large percentage of jobs in the area.
- **Least-cost planning.** PSRC staff should provide a summary of how they account for this.

## Ridership Forecasting

### *Brant Lyerla (Sound Transit)*

See presentation slides, “Ridership Forecasting” and the map titled “Highway & Transit Travel Times – PM Peak Hour.” Additional information and responses to panel questions were as follows:

- **Increase in daily transit trips.** The new PSRC land use inputs result in no net change in the Queen Anne area but an increase in transit trips for Seattle CBD.
- **Percent reduction in trips forecast.** The new forecast, using PSRC’s new model and assuming mileage fees are used rather than highway tolls, yields 2 percent fewer daily transit trips.
- **Downtown tunnel capacity.** With two lines each running six-minute headways and four-car trains, the tunnel has the capacity for 12,000 to 16,000 people per hour, in each direction.
- **Passenger volume per line.** With an Option 3 light rail operational system, each of the three lines (West Seattle – Everett, Redmond – 128<sup>th</sup> and Ballard – Tacoma) would have a maximum of approximately 6,000 to 8,000 passengers per hour. On the Redmond line, it is assumed that no trains would go all the way to Everett Station.

- **Options 1 or 2.** A separate Ballard – West Seattle line would have lower ridership, and would be a shorter (two-car) train with 12-minute headways. The option that would run at grade on 1<sup>st</sup> Avenue would have a lower ridership but also a lower cost than a tunnel.
- **Origin-destination studies.** The studies for the Lynnwood – Everett options and the I-405 BRT options showed that in both cases, an option would increase ridership in one segment but decrease it in another, so the ridership in each was approximately the same.
- **Travel time map.** The map with highway and transit travel times includes existing bus travel times. The “Future” columns show travel times on each rail and BRT corridor. For the BRT it is assumed that the high-occupancy toll (HOT) lanes on 405 are free-flowing.
- **Travel time trends.** The map shows highway times increasing moderately except in the south, where times increase significantly. The future transit times are improved and are competitive with or better than the future highway times in all cases but Tukwila - Bellevue. There the future transit is assumed to be BRT with multiple stops.

*Panel requests and comments:*

- **No-build.** The travel times map does not offer a “no build” option to show what highway travel times would be in the future without ST3. Without this information for comparison, it is difficult to explain what improvement in travel time ST3 would provide.
- **Ridership report.** The panel would like to see a ridership report showing ridership of each transit mode per year for the last six years.

## **System Access**

### **Chris Rule (Sound Transit)**

See presentation slides, “System Access in ST3.” Additional information and responses to panel questions were as follows:

- **Funding improvements.** Options for funding include matching the funds put up by local cities, pursuing grants, and partnering with cities on improvements such as the pedestrian bridge over I-5 at Northgate.
- **Distance around station for improvements.** Sound Transit targets a one-quarter mile radius of a station for pedestrian and bicycle access improvements, but may make bicycle access investments up to one-half mile. FTA allows up to a three-mile area, but Sound Transit’s analysis is that people farther away than one-half mile are more likely to choose other transportation options.
- **System Access Fund.** Sound Transit will use this fund in working with local jurisdictions on projects they would like to pursue that will contribute to increased transit ridership, such as a better pedestrian crossing at a busy street by the station.
- **Bus-rail integration.** The allowance in the project budgets for bus-rail integration facilities is for high transfer locations and is in addition to the two to three on-street transit bays that are fit within typical station costs.
- **Park and rides.** Sizing of park and ride lots is based on professional judgment of the station area and past experience.

## Cost Estimating and Risk Analysis

### Response to Value Management Consulting's Cost Estimate Analysis

*Karen Kitsis (Sound Transit)*

See the handout, "Bus Rail Integration Facilities." Additional information and responses to panel questions were as follows:

- **Capital cost escalation methodology.** Sound Transit is doing a two-part risk assessment: first looking at the projects, and second at the scheduling. The financial plan includes cost escalation.
- **Clarifications.** Sound Transit will follow up on the points the consultant suggests need clarification and updating. They will also update terminology per the AAEC recommended practice as long as it is consistent with the FTA.
- **Life cycle costs.** These are considered at the system level at this point.
- **Right-of-way risk.** This is part of the risk assessment that will be completed in the next week.
- **Unit cost documentation.** Information about the unit costs is in the unit cost library.
- **Unit cost escalation.** In the financial plan, all costs escalate to the year of expenditure.
- **Bus-rail integration.** A cost number for integration is now included in project budgets. Sound Transit will meet with local transit partners to help identify which stations will most likely need integration facilities.

### Response from Value Management Consulting

*Mike Morrison*

- Sound Transit should update its methodology documents to coincide with the changes.
- On terminology used, state which standard is used, to prevent confusion.

### Risk Assessment

*Kathy Leotta (Sound Transit)*

See presentation slides, "Sound Transit 3 Risk Assessment." Additional information and responses to panel questions were as follows:

- **Part I risk assessment.** This assessment is being conducted at only 2 percent design and on projects in groups. The assessment identifies the general probability that risk will occur and the level of its impact.
- **Part II risk assessment.** This assessment will be conducted in early March. It will be a system analysis, including Sound Transit's capacity and industry capacity to plan, design and construct the ST3 projects.
- **Independent project cost estimate validation.** This is being done by one of Sound Transit's on-call consultants.
- **Timing to inform Board.** Staff will brief the Board on the results of the Part I Risk Assessment. It is not yet clear if this briefing will take place before or after the March Board meeting.
- **Work with local transit agencies.** Staff are having conversations with transit partners on issues such as right of way and other areas important for understanding risk.

## ST3 Finance Plan Assumptions

### Federal Grants

#### *Lisa Wolterink (Sound Transit)*

Ms. Wolterink addressed the panel's comment letter question about grants. The following is a summary of her remarks and responses to panel members' questions.

- **Types of federal grants.** There have generally been three types of federal grants: (1) New and Small Start grants, which are mostly for light rail; (2) FTA formula funding, which PSRC allocates by formula to transit agencies in the region; and (3) other competitions, such as CMAQ, Surface Transportation, STP and TIGER.
- **Funding expected.** To date, Sound Transit has received \$2.4 billion in federal grant funding. The financial plan assumes a total of \$3.7 billion in federal grants through 2023, with the additional assumed grants coming from the Lynnwood Link Full Funding Grant Agreement. On the day of the meeting, there was an announcement that a grant for Lynnwood Link was included in the federal budget request.
- **Assumptions in ST3 financial plan.** Historically, federal grants have provided 18 percent of Sound Transit's project costs. The plan for ST3 assumes that 10 percent of the capital program will be funded by federal grants.
- **Methodology.** Sound Transit is using two methods to estimate grant funding, which they refer to as "top down" and "bottom up." The top down method assumes the total funding that will be available through New Starts, and estimates what Sound Transit's share might be, with a low, medium and high estimate. The bottom up method looks at all three types of federal grants and estimates the potential funding Sound Transit might receive.
- **Future formula grants.** Sound Transit is assuming future formula grants will be similar to the past. There are some changes, such as a new "state of good repair" formula that is pegged to 2011 earnings. HOT lanes do not earn motorbus ratings, so the I-405 lanes converted to HOT lanes will impact the formula funding for transit.

### Capacity Issues

#### *Brian McCartan (Sound Transit)*

Mr. McCartan provided a response to one of the panel's questions about the agency's capacity. The following is a summary of his remarks and responses to panel members' questions.

- **Current construction.** Sound Transit is now getting to the heart of ST2 construction, which will reach a peak in 2020 with \$1 billion in capital costs.
- **ST3 construction timing.** Based on ST3 representative projects, the early deliverables will be started while ST2 construction is still in progress. ST3 early projects will be in Redmond and the Federal Way Transit Center. The construction peak would be in 2020 with \$1.4 billion. The second wave of ST3 projects (lines in Seattle and finishing north to Everett) would be in 2030 with \$1.7 billion to \$1.8 billion in expenditures. This amount of work raises questions of capacity of the agency, local construction industry and transit partners.

- **Risk assessment.** The Phase 1 and Phase 2 risk assessments described in this meeting are on the project side. The finance staff are looking at the capacity risk.
- **Industry capacity.** Staff have started to get data on construction that is planned in the region. The public sector portion is relatively small, only about 14 percent. Staff will look at the capacity of firms willing to do public work and the plans of WSDOT and other agencies in 2030. The Board is also engaged and concerned about the size and timing of projects in their area.

### **Timing for Board Decisions and Next Panel Meeting**

#### ***Ric Ilgenfritz (Sound Transit)***

Mr. Ilgenfritz answered questions about what information the Board will have when it decides on a draft system plan in March. The following is a summary of his remarks and responses to panel members' questions.

- **Current schedule of activities.** The Board is in an iterative phase of reviewing the preliminary project information and asking questions, with staff making changes and clarifications in response. This will last approximately one month. The March Board meeting materials will be available only shortly before the meeting. The Board is to decide on a draft system plan in March. Outreach will take place in April. The financial plan will probably be available in June. The Board is likely to adopt the Final System Plan in June.
- **Timing for next panel meeting.** The panel will likely have a complete product to review at the very end of March or early April. If the panel met in April, any questions or comments could go to the Board before its June decision on the Final System Plan.

### **Public Comment**

#### ***Neil Ichiki, Save Our Trail***

- Mr. Ichiki addressed the candidate projects through Kirkland. He is concerned that projects E-06 and E-03 would impact the Cross-Kirkland Corridor trail on the Eastside Rail Corridor. The Save Our Trail group's vision is that the Cross-Kirkland Corridor is an extension of the Burke Gilman Trail, 520 Trail and West Sammamish Trail, none of which host transit.
- He said that the operating cost of the light rail options E-03A Totem Lake to Bellevue and E-03B Bellevue to Issaquah would have a high cost per rider compared to BRT.
- Mr. Ichiki pointed out that wetlands in Kirkland are a significant environmental concern for a light rail alignment. In the City of Kirkland, 50 ft. surrounding a wetland is protected. He said that BRT on I-405 would avoid this problem.

#### ***Will Knedlik, Eastside Transportation Association***

- Mr. Knedlik said that the junior taxing districts are not getting the opportunity for meaningful participation in Sound Transit's decision-making.
- He asserted that since the Secretary of Transportation was one of the panel's appointing authorities and the Legislature recently decided not to confirm the Secretary, the panel should resign.
- He said that ST3 should not be paid for with Sound Move and ST2 funds.

- He is concerned that putting transit on the I-90 bridge will damage and reduce the life and value of the structure.
- He said the panel should send its reports to all its appointing agencies and not just to Washington Department of Transportation and to Sound Transit.
- He said that some members of the panel appear to be biased in favor of Sound Transit.

***John Niles, Transportation analyst***

- Mr. Niles said he endorses the Sound Transit project on I-90.
- He would like to see all the materials from this panel meeting posted quickly on the website.
- He said that if ST3 wins at the ballot, Sound Transit will not need to borrow so much money for ST2, so ST3 will lower the cost of ST2.
- Related to a no-build alternative, Mr. Niles said that Sound Transit should consider the 90-plus market share that will continue to drive. He noted that auto registrations are growing twice as fast as house sales. Also, he suggested that new technology may help improve traffic.
- Mr. Niles advised Sound Transit to give more consideration to parking, noting that in San Jose, the proximity of parking has been a bigger driver of transit use than has having housing nearby.

**Panel Discussion and Next Meeting**

**Panel Comments and Questions**

Mr. Howell summarized the panel’s comments and questions over the two days, and panel members offered additional comments.

1. ***Financial model.*** Ms. Koenig said that Sound Transit’s financial model and cost estimates are sound, and that the high level of reserves and contingency is appropriate at this stage of development. She questioned whether the additional contingency on the inflation indices is appropriate, given the other contingencies and reserves built into the cost estimates. She is reserving final judgment until the panel reviews the sensitivity analysis on the ST3 finance plan.
2. ***Near-term improvements and investments.*** The panel would like to see the set of proposed improvements and any changes to scope based on them. Some panel members suggested that Sound Transit consider investment in service, not just in capital improvements.
3. ***Timing of the panel’s next review.*** Panel members noted that since the revised project planning documents will not be ready until right before the March Board meeting, the panel will not have the opportunity to provide advice to the Board before they decide on the draft system plan. However, the panel can meet in late March or in April to provide comment before the Board adopts the final plan in June.
4. ***Involving regulatory authorities.*** Ms. Haupt suggested that while it is difficult to bring regulatory agencies in at this stage, it may be possible to leverage regulatory work for ST2 by running ST3 projects by the agencies to get a “red flag” review. She noted that since turnover in these agencies can be high, early review could be helpful. Sound Transit could also coordinate now with jurisdictions on zoning and similar issues.
5. ***Cost per household.*** Panel members would like to see the cumulative cost per household of Sound Move plus ST2 plus ST3, and might want to comment on how the cost is portrayed to the public.

One suggestion was to state an example, such as a \$400,000 house, instead of an “average” cost. The presentation also should show clear benefits to the public.

6. **TOD fund.** The \$500,000 per station seemed modest and more a way to dispose of property than to partner in developing a TOD project.
7. **Connection of Long-Range Plan and ST3 planning.** The panel would like information on how the Long-Range Plan served as a foundation for the ST3 projects and set the stage from an environmental and policy standpoint.
8. **Cost effectiveness.** The panel would like to see the measures for the draft system plan and encouraged Sound Transit to include the cost per new rider.
9. **Travel times.** The panel suggested including the future travel times if there were no ST3, and would like to see the chart based on the draft system plan that the Board approves in March.
10. **System access.** The panel asked about the policy to pursue investments within one-quarter mile of a station, and suggested reviewing the policy to be sure there is consistency and to provide clarity on what Sound Transit would and would not fund.
11. **Bus-rail integration.** The panel is interested in comments from and interaction with the other local transit agencies once the draft system plan comes out.
12. **Risk assessment.** The panel said that doing risk assessment at this stage is a good practice and encourages staff to raise issues with the Board prior to their March decision on the draft system plan.
13. **Ridership methodology.** The panel suggested that the methodology for estimating ridership for specific projects is sound, although the panel would like to do more work to understand the regional population and employment forecasts. Mark H will develop some language that explains what the ridership forecasts include and what they do not include, as well as a description about why the forecasts for the Lynnwood to Everett light rail options don’t vary much.
14. **Right of way.** There was discussion about whether Sound Transit should buy extra right of way if it were available in light rail corridors. A panel member noted that only heavy rail systems do this. Another member suggested it might make sense to buy right of way along the freeway for BRT systems and additional property in station locations. The panel did not have agreement on this topic.
15. **Schedule and budgets.** It would be useful to see examples of expenditures through the project’s life from year zero to at least year 10.
16. **Areas outside Sound Transit boundaries.** Several panel members noted the challenges of planning for service for the farthest stations since some demand will come from outside the Sound Transit taxing area.
17. **Specific information requests.** These were:
  - a. Request for Mike Morrison’s slides.
  - b. To see the stair-step graph of planned Sound Move and ST2 service versus actual, from Stephanie Ball’s presentation.
  - c. The intervals for asset replacement and estimated replacement costs
  - d. The complete list of all the jurisdictions and stakeholder groups who sent letters on the projects.
  - e. Summary from PSRC on least-cost planning

- f. Performance reports showing annual ridership by mode for the last six years.
- g. Results/reports of both phases of the risk assessment
- h. Additional population and employment data—jobs and people forecast to 2040—with specifics for Seattle Central Business District and in each of the Sound Transit districts.
- i. Request for Lisa Wolterink’s presentation.

**Next Meeting**

- Mr. Morrison will review the results of Sound Transit’s risk assessment workshops and provide comments to the panel. He will also comment on the management plan to execute ST3 in terms of internal and external capacity.
- The Board will adopt the draft system plan on March 24. Staff estimated that by the second week of April, the finance plan, schedule and planning for the system plan would be available for the panel to review.
- Mr. Howell will poll panel members about meeting dates for the weeks of April 11 and April 18.
- There will likely be one more panel meeting after the April meeting. After that, the panel members will need to review drafts of the panel’s final letter of comment that summarizes all comments and complies with the state law requirements.