Portland-Milwaukie Light Rail Project
Willamette River Bridge Advisory Committee Meeting
Tuesday, August 11, 2009
David Evans & Associates

Meeting Notes

WRBAC Members Present:
Mayor Vera Katz (Chair)
David Knowles (Facilitator)
Art Johnson, KPFF Consulting Engineers
Sue Keil, Portland Bureau of Transportation
Pat LaCrosse, Oregon Museum of Science and Industry
Neil McFarlane, TriMet
Guenevere Millius, SRM Architecture and Marketing, Inc.
Brian Newman for Mark Williams, OHSU
Michelle Poyourow, Bicycle Transportation Alliance
Ross Roberts, Metro
Rick Saito, Insite
David Soderstrom, Portland Opera Board
Chuck Steinwandel, Ross Island Sand and Gravel
Rick Williams, BPM Development
WRBAC Members Absent:
Thomas Hacker, Thomas Hacker Architects Inc.
Mike Zilis, Walker & Macy

Mayor Katz welcomes attendees and begins the meeting.

Welcome and Project Status presented by David Knowles (WRBAC Facilitator)

David reminded the committee that **Donald MacDonald** (Bridge Architect) was introduced at May 28, 2009 meeting. There was a vigorous discussion about bridge type. Consensus was for the cable stayed option to move forward in the design process. The message from WRBAC from the May 28 meeting was that the cable stayed bridge type was the preferred design

to move forward and that design details are very important. Towers; bike/ped path configuration; greenway location and clearance; lighting; and location, size, and position of overlooks, were named as important details. Two Bridge Design Workshops have happened since May. The focus of those meetings was on the design of the bridge towers and how the bike/ped path moves around the towers.

Bridge Height Presentation and Discussion presented by Rob Barnard

Rob reported that additional analysis had been done on vertical clearance. Meetings were held in May 2009 with the FTA, US Coast Guard, river users, landside stakeholders, and the Lower Columbia Region Harbor Safety Committee. Climate change research was presented. Research showed that beyond 77.36 clearance there was only a nominal change in percent passage rates for river users. Landside issues were researched as well including development on the east and west sides of the river; public access to the bridge; bike and transit connections; and safety and security with regard to the elevation of platforms. Rob stated the draft findings were that additional vertical clearance provides diminishing benefit to existing commercial river users at about 77.36 feet and that moderate to significant landside impacts for incremental increases in bridge vertical clearance occurs at about 77.36 feet.

Rob stated that the Portland Spirit asked TriMet to research if the slope of the bridge could increase to create a clearance of 85 feet. In order to keep the stations at grade, slope would need to increase 23% to do this. Increase in slope makes access more difficult, creates safety issues for bike/ped users, and increases risk of bridge shut-downs in inclement weather.

The next steps in the bridge height determination are to continue research on implications for future river users. Rob stated that we hope to make a bridge height recommendation at the next Steering Committee meeting this fall.

QUESTIONS:

Vera Katz asked if someone from the Portland Spirit would like to say a few words at this meeting. (There was no one from Portland Spirit in attendance.)

Sue Keil: Is there anything about the economics of replacing some of Portland Spirit's boats? Do we know anything about how modern tour boats are built? Are boats built higher now than they were?

Chuck Steinwandel: In the tour boat industry there is a tendency to build horizontal for balance. Height makes a vessel less stable. An issue that will have more impact is the tugboat industry. Barges are becoming longer. What that means is, if you want vision to the ends of the boat, the wheelhouses have to be built higher. As the length of tugboats increases, there will be an increase in wheelhouse height and TriMet should be sensitive to that.

Art Johnson: Is there going to be an opposite problem when the water is lower in the summer months?

Chuck Steinwandel: It depends on the weight of the vessel.

Gwen Millius asked if TriMet spoke to Portland Spirit about the preliminary findings?

Rob Barnard: Yes, Dan Yates and Wayne Kingsley have seen a presentation on our work to date.

Tower Design Refinements and Discussion presented by Donald MacDonald, Bridge Architect

Since the last meeting we've been working on developing the architectural vocabulary of the tower which sets the theme for the bridge and pathway routing at the tower.

Donald presented sketches of different tower schemes to the group. Donald discussed tower edge and form articulation. Section renderings of

“rounded,” “form articulated” and “edge articulated” towers were presented. Details of each design were discussed.

QUESTIONS:

Gwen Millius: Do the rounded towers lean into each other?

Donald MacDonald: Columns go inward at top to make it visually more pleasing.

David Soderstrom: Cable looks very large and the towers look stumpy in the renderings unlike the computer generated graphics.

Donald MacDonald: Renderings can make the cables look larger than they actually are. Very thin cable disappears in bright sunlight so you have to strike a balance of the look of the cables in daylight and when they are lighted up at night.

Semyon Treygor spoke about the height of the towers. How high the towers have to be depends on what the cables have to support.

David Knowles relayed a message on behalf of Will Dann regarding the towers. Will prefers the rounded version of the tower design.

Pathway Routing at Towers and Midspan presented by Bob Hastings, TriMet

Bob presented three configurations for the pathway routing around the towers for bike/peds: pathway tight to tower (base), joint path extended from tower, and separated pathway extended from tower. For each configuration, a mode of transportation -- pedestrian, bike, and service vehicles -- was analyzed. Eleven factors including cost, security, and maintenance were analyzed. The Bridge Working Group’s recommendation based on technical merits is the pathway tight to tower (base) option. Technical merits were based on operational considerations not the aesthetics of the bridge design.

The group that put together this assessment included Portland Bureau of Transportation, Bicycle Transportation Alliance (BTA), Metro, the Parks Department and TriMet.

QUESTIONS:

Michelle Poyourow: How will the path work for tourists and others who would like to stop and look over the bridge if it does not have a belvedere? Can we get a few more feet on each side for this, if we go with a pathway tight at the tower?

Donald MacDonald: If you want to spend more money to extend the belvederes out you have to consider the implications to users like cyclists, i.e. creating blind spots, etc. Circulation and preventing mode conflicts between bicyclists and pedestrians is one of the most important elements for the pathway.

Semyon Treygor commented that the beams are extension of the floor beams on the split tower types. This was least expensive way to support the extended pathway.

David Soderstrom commented that the configuration of the pathway tight to the tower is the least expensive and more elegant solution.

Art Johnson: I like not having the secondary group of cables on the belvedere.

Vera Katz: What was the waterfall discussion?

Neil McFarlane: The waterfall would be a project in itself. It would be a complicated process.

Donald MacDonald: Recycled stormwater might be used for the waterfall. We are doing studies on creating a pilecap so that water coming off the bridge would hit the pilecap and a habitat might be created around it.

Vera Katz: Where is this study going?

Donald MacDonald: First we need a decision regarding the tower design to establish the architectural vocabulary of the bridge before we move forward on other elements.

Jim Lee: With a 5% downgrade the cyclists will go too fast on the pathway. Upwards of 20 miles an hour. We should put bike and pedestrians on opposite sides of the bridge. Mixing bike/peds causes more accidents. We should look at this issue.

Sue Keil agreed that we should look at safety factors around this issue.

Rob Barnard: We are researching this issue now.

Donald MacDonald commented that the east side of Golden Gate Bridge is a mixed bike/ped path and accidents are a problem. The Golden Gate bike/ped path is 10 feet wide. We will have 14 feet on our bridge.

Rob Barnard reminded the group that we need to get consensus on the architectural vocabulary for the tower and how we should route the pedestrians around the tower in order to advance to the next level of design.

Public Comment

Kathryn Notson: My preference is for pathway close to towers in the base example. Cable wires make it busy and it seems to make the separation more. I like the flow of the base example. Others don't have a natural feel.

Eric Forsyth: Keep paths straight as possible. Base version (i.e. pathway tight at tower) is safer and effective. If you make pedestrians walk too far, it will cause problems.

Roundtable:

Gwen Millius: Base version is best solution. Less cables, less exaggeration is more elegant. I prefer the form articulated towers without the steps.

Chuck Steinwandel: I like base version simplicity. I prefer the form articulated tower design.

Rick Williams: I lean toward base version. People may want to stop on the bridge. We need to focus more on what happens when people want to stop on the bridge, not just walkers and bikers. I like the form or edge articulated towers not the rounded design.

Sue Keil: We've got to accommodate people who stop on the bridge. Either of the more angular towers are preferable.

Ross Roberts: I like the separated pathways and the waterfall feature. However, there is a lot of cost pressure on the project and this needs to be taken into account. I like the base design, but would like to incorporate a space around the tower where people can stop and look safely. Amount of shading that the bridge produces on the water could be a biological assessment issue.

Art Johnson: I like the base design. I would like to see the pathway wider at the towers.

Patrick LaCrosse: Base design and rounded tower are preferred. Some separation for light penetration would be good. Angles are bad for bike safety on pathway.

David Soderstrom: The focus of this group has been to keep bridge elegant, simple, delicate and inexpensive. Perhaps this hasn't been communicated to Donald MacDonald, who has done such terrific work so far. We should revisit circulation of bike/peds on the pathway. Base design is good, but I prefer a wider pathway. Form articulated tower is my preference. A rounded tower form that becomes art deco in style would be fine, too. The more elegant the tower the better. Having a stopping point at the center of the span would be good as well.

Neil McFarlane: Base design is my preference. It eliminates extra cables, which makes it look better. Opening up deck between transit way and bike/ped path is a good idea. Landside issues should be considered for one-way bike/ped path. We have to find a safe and efficient solution.

Michelle Poyourow: We should be able to have good separation between bikes and pedestrians with 14 ft width. We work with much more narrow bridge paths now in Portland like the Hawthorne Bridge. I don't have strong

feelings about the towers. Extra width where people can stop would be valuable on the pathway.

Rob Barnard reiterated what he just heard from the committee roundtable. Towers should be elegant and simple. Base pathway design was preferred by the committee. Space between bikes and pedestrians is important. A number of committee members also mentioned creating a stopping place for pedestrians.

David Knowles noted that discussion of the tower types did not generate strong discussion among committee members, as has been the case in previous meetings.

Next Steps presented by David Knowles, WRBAC Facilitator

David gives a brief overview of what work is coming next. Greenway, lighting on bridge, and catenary systems will be looked at in Bridge Working Group meetings in September and October. The next WRBAC meeting will be scheduled in November.

Neil McFarlane: A design team artist will be hired to work with Donald MacDonald.

Vera Katz: Ends the meeting.