

PDC

PORTLAND DEVELOPMENT COMMISSION

DATE: June 10, 2009

TO: Board of Commissioners

FROM: Bruce A. Warner, Executive Director

SUBJECT: Report Number 09-72
Portland Milwaukie Light Rail Transit – Willamette Bridge Design
Recommendation from Willamette River Bridge Advisory Committee

EXECUTIVE SUMMARY

BOARD ACTION REQUESTED

None – information only.

SUMMARY

The Portland Development Commission (PDC) Board of Commissioners (Board) was briefed in March regarding the Portland to Milwaukie Light Rail project. Since then, the Willamette River Bridge Advisory Committee (WRBAC) has recommended a specific bridge type for inclusion in the final design – a refined four-pier cable stayed design. In order to inform the Board prior to the adoption of the final bridge design by the project Steering Committee on June 22 and prior to a City Council briefing on June 17, staff is returning with this briefing on the project status.

In July 2008, the Metro Council adopted a new Locally Preferred Alternative (LPA) for the Portland-Milwaukie light rail transit (LRT). As part of the LPA process, the WRBAC has evaluated alternatives for a transit bridge crossing the Willamette River from South Waterfront, in the North Macadam Urban Renewal Area (URA), to the Oregon Museum of Science and Industry (OMSI), in the Central Eastside URA. At the PDC Board meeting, TriMet staff will provide a briefing on the recommended bridge type for the Willamette River Transit Bridge.

BACKGROUND

Note: Prior Board Reports (07-73, 08-35, 08-97, and 09-32) have provided additional background information.

The focus of this briefing is the Willamette River Transit Bridge recommendation from the WRBAC for a refined four-pier cable stayed bridge between the South Waterfront and Central Eastside.

The recommended bridge will meet the following requirements:

- Meet 680 feet horizontal clearance for river navigation,
- Provide 77.36 feet vertical clearance for river traffic,
- Provide a combined travel lane in each direction for bus, light rail and potentially streetcar, and

- Provide 14 feet of combined bicycle and pedestrian passageway in each direction.

The four-pier cable stayed bridge design recommended by the WRBAC will cost 18% less than the LPA budget in the year of expenditure (see costs and funding section below).

ADDITIONAL BACKGROUND

The following provides background on the past year of effort focused on the LRT project.

In July 2008, the Metro Council adopted a LPA for the Portland-Milwaukie LRT. Currently, Metro and TriMet are preparing the draft Final Environmental Impact Statement, which is due fall 2009, and they are about to initiate 30 percent preliminary engineering design. Construction is currently expected to start in 2011, with completion of the light rail line, stations, and bridge in 2015.

The LPA adopted in July 2008 includes a LRT terminus, alignments, stations, park and ride lots, and bus and streetcar elements as follows:

- Terminus
 - Park Avenue terminus
 - Minimum Operating Segment (MOS) at Lake Road if project revenues and project estimates cannot be balanced
- Portland-Milwaukie Light Rail Alternative Alignments
 - Connecting to the southern end of the new LRT mall alignment in downtown Portland with a SW Lincoln Street alignment
 - Refined SW Porter Street to SE Sherman Street Willamette River Crossing
 - Tillamook Branch Alignment south of Tacoma
- LRT Stations

Stations would include stops and shelters at: SW Lincoln Street, South Waterfront (SW Porter Street), SE Sherman Street/OMSI, SE Gideon Street, SE Lafayette/Rhine, SE Holgate Boulevard, SE Bybee Boulevard, SE Tacoma Street, Milwaukie downtown (at SE Washington Street) and SE Park Avenue. If the MOS at Lake is constructed first, downtown Milwaukie stations could be located at SE Monroe Street and at SE Lake Road.
- LRT Park and Ride Lots

Park and Ride lots with the noted number of parking spaces would be located at the following stations: Tacoma (1,000) and Park (1,000). If the MOS at Lake is constructed, it would include a 275 space park and ride at SE Lake Road at SE Washington Street, and an increase at Tacoma Park and Ride to 1,200 spaces.
- Bus Improvements

The Portland-Milwaukie LRT Project LPA includes: bus guideway over the Willamette River as well as bus on and off ramps for the South Waterfront and Central Eastside areas; new roads and traffic signal and intersection improvements for bus access to the new Willamette River Transit bridge.
- Ruby Junction Maintenance Facility

The Portland-Milwaukie LRT Project LPA includes an expansion of the existing Ruby Junction Operations and Maintenance Facility to accommodate additional light rail vehicles associated with the operations of the Portland-Milwaukie LRT Project.

- Future Streetcar Improvements
The Portland Streetcar, a distinct transit mode from LRT, could share some of the improvements made for LRT including the new Willamette River crossing, with LRT tracks also used by streetcars. On and off tracks for the streetcar to connect to the bridge would also be included in this project although additional track connections would need to be made by a separate streetcar project plan and funding effort.

City of Portland Bureau Staff Recommendation

City staff, in conjunction with various City of Portland bureaus, supported the implementation of the Portland-Milwaukie LRT Project to improve transportation access and mobility in the McLoughlin Corridor and to implement the region's 2040 growth management strategies.

The City of Portland staff recommendation in support of the Metro alignment included the following elements:

- Willamette River Crossing – Adopt the findings and recommendations of the Willamette River Crossing Partnership for the modified Porter-Sherman alignment.
- North Milwaukie Alignment – Adopt the Tillamook Branch alignment to minimize impacts to Milwaukie's northern industrial area. Up to 1,200 (200 additional) spaces could be accommodated at the Tacoma station, provided a traffic impact analysis and site analysis demonstrate that there is no significant impact to the surrounding transportation system and to Johnson Creek habitat.
- Southern Terminus at Park Avenue – Extending the LRT line to Park Avenue provides for a better transit project for meeting the regional mobility goals and creating a thriving Milwaukie Town Center, but requires a significant increase in local funding requirements. If a specific funding strategy with commitments from each of the local jurisdictions is not in place by December 31, 2008 (final funding plan summer 2009), then the terminus of the project should be reduced to Lake Road in downtown Milwaukie as part of a first development phase.
- Stations – In downtown Portland, transit is needed to maximize development density to achieve the regional goals of 2040 for the region's growth management goals and the goals of the Central City Plan. Meeting transit commuter mode splits goals of 60 percent for Downtown Portland and 40 percent for South Waterfront rely on efficient light rail system for regional access. The City of Portland will partner with TriMet and Metro to evaluate optimal station spacing in the South Auditorium and RiverPlace area to meeting regional access needs for efficient transit operation, and land use and development access needs for these two areas while minimizing capital costs,. Specifically, considerations will include a single station serving RiverPlace and South Auditorium, reducing the size of the light rail structure, and stations at RiverPlace and Lincoln to address capital costs and development trade-offs.

North Macadam and Central Eastside URAs

All alignments travel through the North Macadam and Central Eastside URAs. Previous briefings have discussed in detail the issues and areas of concern within each. These can be summarized as follows:

- North Macadam:
 - LRT alignment and impacts on adjacent properties
 - Changes to local street grid and required amendment to the South Waterfront Street Plan
 - Modifications to the Greenway Development Plan will be required based on LRT and Greenway interface
 - Recommended alignment adjacent to western edge of RiverPlace Parcel 3
 - All alignments bisect the Harbor-Naito area
 - The Lincoln and Harbor Drive stations will be evaluated to determine if combining these stations can serve the needs of the area

- Central Eastside:
 - OMSI Master Plan coordination
 - Coordination with Oregon Pacific Railroad and Union Pacific rail lines.
 - Coordination / connection with eastside Streetcar alignment
 - Impacts to Greenway based on the location, design, and structural requirements of a LRT bridge.
 - Water Avenue relocation
 - River Navigational Clearance

Costs and Funding

Construction of the Portland to Milwaukie Light Rail is projected to cost \$1.47 Billion in years of expenditure (2011-2015). Of this amount, \$134.6 Million was budgeted for the Willamette River Crossing. The recommended refined four-pier cable stayed bridge design is estimated to cost in year of expenditure (2013) \$110.12 Million, or 18% below the budgeted amount.

The alternative design, a refined hybrid design, which is not being recommended by the WRBAC, would cost 3% over the budgeted amount for the bridge at \$138.955 Million (2013 year of expenditure). Both these designs should be compared to the initial four-pier cable stayed design with a projected cost of \$101.92 Million (24% less than the budgeted amount).

A separate action for consideration by the PDC Board with regard to funding for the City of Portland's share of the local match of the LRT costs will be presented when it is finalized. The City of Portland funding sources for the LRT project are not expected to exceed \$30 Million. A final funding plan for the entire local match (including other municipalities, regional and state entities) is expected to be prepared by the end of preliminary engineering by the spring of 2010.

Public Benefit

The Portland-Milwaukie Light Rail Corridor is part of a regional light rail system. The southeast corridor connecting Portland Central City with southeast Portland and Milwaukie and Clackamas County is a key corridor not served by light rail transit.

Light rail combined with the Portland Streetcar Loop will provide important transportation capacity and circulation for future economic growth. The proposed bridge would also be used by streetcar to complete the Central City Streetcar Loop.

OMSI believes that light rail service is critical to its long term operations. Light rail service is supportive of redevelopment efforts in the Central Eastside and will increase capacity on regional connectors within the Central Eastside URA to accommodate increased visitors to OMSI and area employers.

The proposed LRT line within the Central Eastside URA will provide an opportunity for increased job densities and increased employment opportunities at the station in an area with transportation constraints.

This project will leverage significant federal funds (approximately \$750M) that would not otherwise come into the Portland economy. The construction is forecast to generate between the annual equivalent of 10,800 to 13,680 jobs and generate between \$425 million and \$540 million in personal income.

Light rail service to the South Waterfront District of North Macadam is considered essential to provide transportation system capacity adequate to support continued development in the district in accordance with the South Waterfront Plan, based on existing transportation studies. This conclusion is expected to be reinforced in the North Macadam URA Transportation System Development Study currently underway.

In 2030, transit travel times between Milwaukie and the South Waterfront without light rail is forecast to be 39 minutes and with light rail this trip would take 16 minutes. Transit travel time between the Oregon Health & Science University (OHSU) Schnitzer Campus and other important research institutions including OMSI, Portland State University, and OHSU Marquam would be less than 5 minutes.

OHSU has 1,000 new jobs located in the South Waterfront as of fall 2006 and is planning 5,000 more jobs on its South Waterfront properties within the next ten years. Light rail service in the South Waterfront will connect these jobs with transit service to the metropolitan area. The South Waterfront Plan adopted a mode split goal for 30 percent of all trips on alternative modes and for 40 percent of commuter trips on alternative modes. Light rail is important to meeting these minimum targets.

ATTACHMENTS:

- A. Portland - Milwaukie LRT Alignment
- B. Recommended Willamette River Bridge Design - Hybrid-Refined and Cable Stayed - Refined



¹ Lake Road Minimum Operable Segment (MOS); A Lake Road MOS terminus would include a 275 space park and ride at Lake Road, and a 1250 space park and ride at Tacoma.
² The Lincoln and Harbor Stations will be consolidated into a single station. The New Starts application will include the Lincoln Station.

Questions?

Willamette River Transit Bridge

\$139 M



Hybrid - Refined

\$110 M



Cable Stay - Refined