

Portland-Milwaukie Light Rail Transit Project: Managing Growth Sustainably through Transit Alternatives

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Schmidt and Gordon discuss the Portland-Milwaukie Light Rail Transit Project which will connect previously underserved areas to Portland's downtown core. Unique in its citizen-driven planning process it will stimulate the regional economy and enhance the quality of life through environmentally-conscious development.

EcoMobility aims to enhance transportation options in order to reduce resource use and promote public health for a better quality of life. As communities grow, there is potential for that growth to occur in a variety of ways. EcoMobility principles ensure that sustainability and equity are included in the planning process.

The Portland metropolitan region's South Corridor is expected to add one million residents and 100,000 jobs by 2030, putting stress on an already-burdened transportation infrastructure. To alleviate congestion, add transit alternatives and promote sustainable development, Tri-Met has initiated the Portland-Milwaukie Light Rail Transit Project. Driven by citizen engagement and defined by innovative design features, this project will allow growth to occur in a manageable way throughout the region, while supporting the local economy and increasing transit access to previously underserved communities.

By incorporating active and public transportation routes and restricting access of private vehicles on the bridge, Portland has demonstrated how its innovative transportation policy can lead the way for cities across the globe.

The City Context: Portland

The City of Portland is located in the northern portion of the State of Oregon, in the United States. It is the largest city and county seat of Multnomah County. Renowned for its bicycle- and pedestrian-friendly infrastructure and progressive land-use policies, the city is the 28th largest in the United States with an estimated population of 603,106

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residents, as of 2012. It is urban in nature, with 1,689 people per square kilometer, ranking 14th out of American metropolitan areas in density.

The Tri-County Metropolitan Transportation District of Oregon (Tri-Met) is the public agency that operates the light and commuter rail and bus system in the metropolitan area. The light rail system, known as the MAX, carries approximately 127,000 people daily across five lines and is one of the most heavily used light rail lines in the U.S. As a whole, Tri-Met's offerings carry more people than any other transportation system of its size in the country.

The Portland Bureau of Transportation (PBOT) is also an actor in the city's transportation environment. PBOT operates the SmartTrips program aimed at encouraging all citizens to utilize alternative forms of personal and recreational transit. Select initiatives include Senior Strolls and Women on Bikes. The agency is also responsible for the bicycle infrastructure in the city.

The City of Milwaukie, located south of Portland, serves as a suburb with approximately 20,000 residents. The downtown is currently undergoing a revival, as new housing and commercial developments are under construction or planned, spurred in part by news of the new transit connection to Portland.

The Light Rail Expansion in Portland

In 1999, the City of Portland partnered with Tri-Met and other organizations to study transportation options in the South Corridor of the metropolitan area. A congested thoroughfare, McLoughlin Boulevard, currently dominates this corridor, which mostly carries commuters from Milwaukie and south Portland to and from downtown Portland. The initial proposals included river transit, high occupancy vehicle lanes, toll lanes, bus rapid transit and a commuter rail line. Light Rail was initially not considered as an alternative but due to active community participation in

the impacted neighborhoods, it was eventually selected as the Locally Preferred Alternative.

The first phase of the project in the South Corridor was completed in 2009 and provided light rail service from suburban Clackamas in the southeast of the region to Portland State University via the MAX Green Line. The Portland-Milwaukie Light Rail (PMLR) Transit Project comprises phase two of the project and will link downtown Portland to northern Clackamas County in the south of the region, traversing Portland State University, the Oregon Health & Science University, downtown Milwaukie and a new bridge to be used exclusively for active and public transportation. This will create the new Orange line in the MAX system.

The expansion of transportation in Portland is intended to increase livability and economic development throughout the metropolitan region. The South Corridor is expected to add one million people and 100,000 jobs by 2030. This project will allow development of the area to occur in a sustainable way and serve communities previously neglected by alternative transit options. Speaking to the crowd at the formal dedication ceremony of FTA funding approval, administrator Peter Rogoff posed a question: "Is Portland going to plan for its growth, or be overwhelmed by it?" This project is an opportunity to plan for the region's growth.

Sustainability is a major focus of this project, and protecting species and restoring wildlife and riparian habitat in the project area is critical to the mission. Public art installations associated with the project are meant to focus on low-impact development principles and contribute sensitivity as well as creativity to the public realm. A unique feature, referred to as an "eco-track," will bring European-style vegetated rail tracks to Portland for the first time at the Lincoln Street/SW 3rd Avenue station and further beautify the right-of-way while providing ecological benefits.

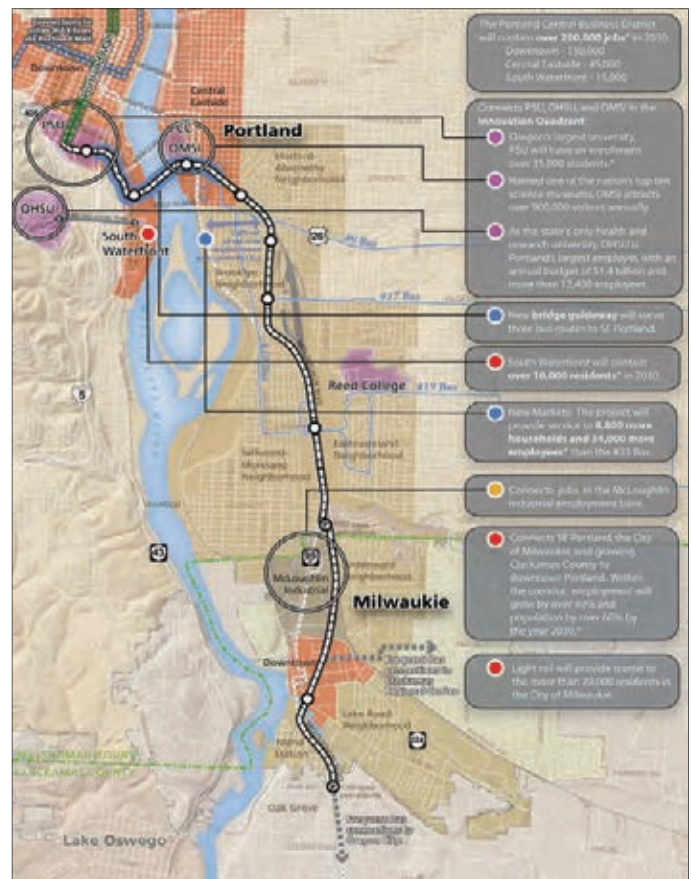
As with any large infrastructure project, challenges were inherent in the planning stage of the PMLR. In the summer of 2010, Federal Transit Administration funding was reduced from 60 to 5 percent, leaving Tri-Met approximately \$140 million short of funding. In order to stay within the new budget, the scope of the project had to be reduced.

Two important decisions had to be made regarding the orientation of the light rail path. First was the placement of the bridge. To facilitate this decision, the Willamette River Crossing Partnership Committee was created and consisted of former Portland Mayor Vera Katz and project partners and institutions, businesses and neighborhood representatives from both sides of the river. In May 2008, the committee recommended the current alignment, which begins at OHSU's future South Waterfront campus and then crosses the river to the east bank to SE Sherman Avenue near the Portland Opera rehearsal and administrative space.



Figure 1: The Eco-Track at Lincoln and SW 3rd Avenue may resemble this track in Belgium. (source: <http://citytransport.info/Digi/P1090720a.jpg>.)

Figure 2: The Portland-Milwaukie Light Rail Project. Route map from the Locally Preferred Alternative. (source: http://trimet.org/pdfs/pm/LPA_Map.pdf)



The second was the placement of the tracks, which ended up alongside existing rail lines for part of the route. This decision added to the cost due to land acquisition and limits the re-development potential. Alternatives could have placed the line down the center of McLoughlin Boulevard but this was not chosen, likely because it would have reduced automobile capacity on an already congested route.

Many partners were involved in the planning and funding: Federal Transit Administration; Clackamas County; Metro, a regional government body; City of Milwaukie; Multnomah County; City of Oregon City; Oregon Department of Transportation; Portland Development Commission; TriMet; and the City of Portland.

Results

The Locally Preferred Alternative, adopted in 2008, included a two-phase project, with the first including an expansion of the light rail system to Portland's South Corridor. The second phase will connect Milwaukie and northern Clackamas County to greater Portland and be completed in 2015. A Locally Preferred Alternative, according to the Federal Transit Administration, is the outcome of an analysis that evaluates the mode and alignment options for a particular corridor in a community with respect to benefits, costs and impacts therein.

The long-term goal of the PMLR is to "implement a major transit improvement in the South Corridor that maintains livability in the metropolitan region, supports land use goals, optimizes the transportation system, is environmentally sensitive, respects community values, and is fiscally responsible." The 7.3-mile light rail line is projected to carry up to 22,765 daily riders by 2030. It is projected that the light rail train will increase work commutes from the southern corridor to downtown Portland by 20%, and

reduce more than 60,000 vehicle miles traveled during peak highway congestion hours. As of April 2013, 40% of the construction schedule had elapsed with only 37% of the construction costs incurred (\$549.4 of \$1.49 billion) and 40% of the physical construction completed.

The Portland-Milwaukie Light Rail Transit Project will be essential to support the growth of more than 100,000 projected new jobs and more than one million new residents along this corridor by 2030. So far, 375 firms have been, or are currently working on the project, and over 3,451 direct jobs have been created. New development along the project line will provide various employment opportunities, encourage walking and cycling, and enhance livability. The project is actively working with several partners to incorporate sustainable elements and improve the surrounding habitat, including efforts to restore shallow water habitats, utilize recycled building materials, protect native bird species, and plant over 3,000 trees along the line. The PMLR will ultimately increase the livability and economic vitality of the entire region by connecting neighborhoods, encouraging healthier lifestyles and creating sustainable, inclusive, and well-designed public spaces.

Budget and Financing

The total capital budget for the project is US\$1.495 billion. The Federal Transit Administration, via a Full Funding Grant Agreement (FFGA), is providing 50 percent of the funding, conditional upon the project staying on budget and completing on time. Part of that funding comes from the Federal Highway Administration, which is providing US\$109.75 million as part of the Flexible Funds program, which allows highway funds to be spent on alternative transportation projects. The Oregon Department of Transportation is providing US\$250 million via proceeds from the state's lottery fund. More than US\$42.4 million of the budget comes from in-kind contributions.

Replication

Regions that have the need and capacity for increased public transit options, and a public who is willing to support such endeavors, can benefit immensely from projects such as the PMLR. Although light rail was ultimately decided upon as the Locally Preferred Alternative, a variety of transit options are available to other communities—including bus way expansion, bus rapid transit, river transit, high occupancy vehicles lanes, and high occupancy toll lanes. Any proposed transit project should be evaluated for its efficiency of operation, quality of service provided, level of expected ridership, projected economic benefit, and alignment with the community's land use plans. Cities looking to expand existing light rail services to previously underserved areas, create new customer bases for their downtown core, reduce traffic congestion for commuters, and stimulate their local economy should consider a project similar to the PMLR.

Figure 3: Artistic rendering of the future PMLR bridge across the Willamette River. (source: http://archpaper.com/uploads/west_coast_rail/)



Lessons Learned

Many of the major decisions made for the PMLR involved a flexible and interactive process with the citizen advisory committee, technical advisory committee, steering committees, a safety and security task force, and the project management group. These groups were comprised of local residents, business leaders, representatives from public institutions and community groups, and various professional staff members. Throughout the project development, the various committees learned about and toured the proposed alignments, participated in public meetings, and reviewed the technical findings. The steering committee, comprised of elected officials from the partner agencies, made all final policy decisions regarding the project. The local communities also stayed informed throughout the decision-making process through open houses, community presentations, newsletters, ads, website updates, Citizen Advisory Committee meetings, and Station Area Planning meetings.

Throughout the project, there was significant controversy over the \$1.495 billion price tag for the project, making it the most expensive surface-running rail project in the country. This controversy deepened when the federal funding match was reduced from 60% to 50% of the project's total cost, and Tri-Met had to ultimately reduce the scope of the project. Many people believed the construction of the PMLR project was contributing to Tri-Met's financial crisis; however, Tri-Met's share of the entire project is less than 5% of the total project budget. Most of the construction and operating costs are funded by a passed payroll tax rate increase from 2005, which are funds dedicated specifically to new transit services. Accurate and timely public notification of such funding decisions is essential for a successful transit project.

An active and early public involvement process ensured that the PMLR project was the right project, in the right place, for the right price. Other regions looking to explore similar options should make sure to consider all routing options and locations before starting the project, and involve all affected communities as part of a regional collaboration process.

The successful outcomes of the PMLR are the result of an extensive public involvement process, which began during the initial phases of the project development. In 1999, a series of public meetings resulted in strong support for transit alternatives to relieve traffic congestion in the South Corridor. In 2002, neighborhoods along the corridor insisted upon the addition of light rail as an option, and in 2003 the steering committee selected light rail as the Locally Preferred Alternative after extensive public testimony and technical recommendations from the Environmental Impact Statement.

In 2011, the project's Environmental Impact Statement won FTA's 2011 "Outstanding Achievement Award for Excellence in Environmental Document Presentation", which is given to agencies that provide "truly useful" information to the public about a project, and that display the benefits, impacts and costs of the overall project in a way that is easily understood by all stakeholders and the public.

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