



Purpose and Need

As updated December 12, 2016

The Southwest Corridor light rail project is one component of the overall Southwest Corridor Plan Shared Investment Strategy.

Project Purpose

The purpose of the Southwest Corridor light rail project is to directly connect Tualatin, downtown Tigard, Southwest Portland, and the region's central city with light rail, high quality transit and appropriate community investments in a congested corridor to improve mobility and create the conditions that will allow communities in the corridor to achieve their land use vision. Specifically, the project aims to, within the Southwest Corridor:

- Provide light rail transit service that is cost-effective to build and operate with limited local resources
- Serve existing transit demand and significant projected growth in ridership resulting from increases in population and employment in the corridor
- Improve transit service reliability, frequency, and travel times, and provide connections to existing and future transit networks including WES commuter rail
- Support adopted regional and local plans including the 2040 Growth Concept, the Barbur Concept Plan, the Tigard Triangle Strategic Plan and the Tigard Downtown Vision to accommodate projected significant growth in population and employment
- Complete and enhance multimodal transportation networks to provide safe, convenient and secure access to transit and adjacent land uses
- Advance transportation projects that increase active transportation and encourage physical activity
- Provide travel options that reduce overall transportation costs
- Improve multimodal access to existing jobs, housing and educational opportunities and foster opportunities for commercial development and a range of housing types adjacent to transit
- Ensure benefits and impacts promote community equity
- Advance transportation projects that are sensitive to the environment, improve water and air quality, and help achieve the sustainability goals and measures in applicable state, regional, and local plans

Project Need

A light rail transit project in the Southwest Corridor is needed to address the following issues:

- Transit service to important destinations in the corridor is limited, and unmet demand for transit is increasing due to growth
- Limited street connectivity and gaps in pedestrian and bicycle networks create barriers and unsafe conditions for transit access and active transportation
- Travel is slow and unreliable on congested roadways
- There is a limited supply and range of housing options in the Southwest Corridor with good access to multimodal transportation networks, and jobs and services are not located near residences
- Regional and local plans call for high capacity transit in the corridor to meet local and regional land use goals
- State, regional and local environmental and sustainability goals require transportation investments to reduce greenhouse gas emissions.

These project needs are described in more detail below:

Transit service to important destinations in the corridor is limited, and unmet demand for transit is increasing due to growth.

There is a need to improve transit connections to the economic and educational opportunities and services in the corridor. The corridor has 11 percent of the region's population and 26 percent of the region's employment. The five colleges and universities in the corridor serve over 45,000 students. The region's largest shopping destinations are located in the corridor. However, transit service in the Southwest Corridor varies in availability and frequency and struggles to serve areas due to an incomplete and congested road network with congested bottlenecks. As a result, many of the corridor's more heavily-traveled areas, major employment centers, and industrial areas do not have frequent transit service. Taking transit between some of the major destinations in the corridor can take four to six times as long as driving and the corridor generally lacks sidewalk and bicycle connectivity, as discussed below. As a result, driving is the most functional travel option for many people, adding to the corridor's traffic congestion.

There is also increasing unmet demand for transit service in the corridor. In 2010, there were 85,100 households in the corridor; projections show this number growing to 126,000 households in 2035. In Metro's 2009 High Capacity System Plan the corridor between Portland City Center and Sherwood had the highest projected light rail ridership of any future corridor. The number of transit trips in the corridor is projected to increase by 81 percent in the next 25 years. In 2010, there were 121,000 average weekday transit trips in the corridor. The 2035 forecast shows an increase to 219,000 average weekday transit trips. Today eight bus lines serve the corridor with up to 26 buses per hour in each direction in peak periods, with buses arriving approximately every 2 minutes on average in some locations. In 2035, with service adjusted to accommodate projected demand, the number of buses would increase to over 35 per hour.

Limited street connectivity and gaps in pedestrian and bicycle facilities create barriers and unsafe conditions for transit access and active transportation.

The lack of complete sidewalk networks and crosswalks in the corridor impedes walking to transit and other destinations. The bicycle network also has gaps that hinder connectivity. Travel options are also constrained by the geography and development patterns in the corridor, and roads in much of the corridor are winding and discontinuous. The area lacks well-connected street network that would facilitate transit access, make it easier and safer to make short trips on foot or by bike, and provide travelers alternative routes. A safe and complete pedestrian network is needed in order to maximize transit use.

Travel is slow and unreliable on congested roadways.

A lack of arterials results in traffic funneling onto a few key travel routes, such as OR-99W and I-5. Because of the limited road network, transit operating in mixed traffic is often slowed by congestion, especially at key bottlenecks. Travel times for automobiles are expected to increase by 17 percent by 2035 with average speeds slowing to 20 mph. Bus trips operating in mixed traffic between the Portland central city and Tigard are projected to take 12 percent more time in 2035. These travel times are likely to vary more in the future than today due to increases in congestion, incidents, and variation in traffic levels. Unreliable travel times results in travelers in the corridor planning extra time to ensure they will arrive on time. Sections of OR-99W, the major transit route in the corridor, are among the most unreliable road segments in the corridor. Over a 1.7 mile segment in Portland (north of Multnomah Boulevard) and a 2.8 mile segment in Tigard travelers need to budget more than double the average travel time in the PM peak hour to ensure they arrive at destinations on time. Transit travel times are subject to the same lack of reliability and can be expected to vary significantly from the forecast “average condition” because of unreliable travel conditions on congested roadways.

There is a limited supply and range of housing options in the Southwest Corridor with good access to multimodal transportation networks, and jobs and services are not located near residences.

The Southwest Corridor is projected to add around 41,000 households from 2010 to 2035, an increase of 48 percent. Presently, the majority of housing in the project area consists of low density, single family housing and little affordable housing is available. As the region grows, providing a variety of housing options and increased housing supply in the corridor will be necessary to accommodate the additional residents. Concentrated development around light rail stations can provide a range of additional housing options, including affordable housing, with transit and walk access to jobs and other amenities that can reduce the reliance on automobile travel and reduce transportation costs for households. Providing light rail transit will allow development of affordable and higher density housing, which is not currently possible due to State of Oregon Transportation Planning Rules related to capacity on state road facilities.

In addition, many of the major employment areas in the corridor have developed far away from the area’s housing, requiring workers to commute over long distances. For example, 93% of workers in Tualatin and 92% of workers in Tigard live outside the city of their employment. With the transit service limitations described previously, driving on congested roadways is often the only choice for people to access their jobs. In addition, the incomplete sidewalk and bicycle networks in the

corridor require riders to access transit by car and, as a result, park and ride lots in downtown Tigard and near Bridgeport Village are often full. The limited access of those who reside outside the corridor to its jobs, health services and educational opportunities is also an equity concern for the regional community.

As the region grows, implementation of light rail will be critical to improve transit connections between jobs and residences. A well-distributed park and ride system combined with place making principles will allow disconnected users to access light rail without impacting livability.

While providing opportunities for additional housing and jobs near transit is important, that outcome needs to be balanced against impacts on the existing community in the corridor. The region's population growth and economic improvement have elicited concerns about increasing housing costs and displacement of residents and businesses, especially resulting from major public investments. Therefore, the project needs to strive for equitable distribution of benefits and impacts.

Regional and local plans call for high capacity transit in the corridor to meet local and regional land use goals.

To help meet expected levels of growth, Metro's 2040 Growth Concept for the Portland region calls for "town center" development in downtown Tigard, the Tigard Triangle and West Portland. A town center is intended to provide services to tens of thousands within a two- to three-mile radius with one- to three-story buildings for employment and housing, and well served by transit. This regional land use strategy is supported by Tigard's adopted *High Capacity Transit Land Use Plan*, which identifies preferred station community concepts. The Tigard Triangle, however, is surrounded by congested regional highways and has only basic transit service. Providing light rail transit service to this area, which has half the acreage of downtown Portland, would allow for multi-story mixed use development to accommodate a substantial proportion of population and job growth in locations that can be efficiently serviced. This regional strategy is also supported by the City of Portland's *Barbur Concept Plan*. Light rail transit service is critical to fulfillment of that plan, including higher intensity infill development and a continuous and safe bike/pedestrian corridor along Barbur Boulevard. High capacity transit service will also support access to jobs in Tualatin, Sherwood and other employment areas in the corridor that are planned for significant job growth.

The 2035 Regional Transportation Plan (RTP) identifies the investments in multiple modes of transportation that will help accommodate the location and types of development designated by the Growth Concept, noting that, "HCT investments help the region concentrate development and growth in its centers and corridors." The RTP designates a high capacity transit system interconnecting the central Tigard and West Portland town centers and Portland's central city as a near-term regional priority.

State, regional and local environmental and sustainability goals require transportation investments to reduce greenhouse gas emissions.

State and regional policies support actions to increase energy efficiency and reduce harmful greenhouse gas (GHG) emissions, especially from transportation sources. The state has mandated that the Portland region develop and implement a strategy to reduce per capita greenhouse gas emissions from cars and small trucks by 2035. In 2014, Metro adopted the Climate Smart Strategy

to meet that requirement by achieving a 29 percent reduction in per capita greenhouse gas emissions. A high capacity transit project in the Southwest Corridor would advance Climate Smart by making transit convenient, frequent, accessible and affordable; making biking and walking safe and convenient; and making streets and highways safe, reliable and connected. However, the HCT project would need to ensure safe and comfortable access to transit for pedestrians, bicyclists and drivers and address major gaps in biking and walking routes in the corridor.

The City of Portland's Climate Action Plan also addresses GHG emissions with objectives including reducing daily per capita vehicle miles traveled by 30 percent from 2008 levels, improving the efficiency of freight movement within and through the Portland metropolitan area, and ensuring that 80 percent of residents can easily walk or bicycle to meet all basic daily, non-work needs and have safe pedestrian or bicycle access to transit. Light rail transit project in the Southwest Corridor would advance these objectives, especially since that segment of I-5 is the only freeway in Portland not matched with high capacity transit to provide an alternative to driving.

Purpose and Need Background

This section provides additional information on previous planning and regional policy that led to the proposal for a transit project in the Southwest Corridor.

The Southwest Corridor High Capacity Transit Project proposal is based on extensive regional land use and transportation planning beginning in 1975, and regional policy to make better use of the existing transportation system and provide transportation options, including pedestrian, bike and transit, before adding new motor vehicle capacity. A HCT project in the vicinity of Barbur Boulevard and Oregon Highway 99W emerged as one of three near-term projects in the High Capacity System Plan (2009), a 30-year plan to guide investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the region.

High capacity transit has played a significant role in defining the Portland, Oregon region for almost 40 years. Planning for high capacity transit began following the region's decision to move away from plans for large new freeways in favor of more modest street projects and a network of transitways to meet future travel demand. These plans were codified in the 1975 Interim Transportation Plan and refined in the Light Rail System Plan adopted by the Metro council in 1982. In 1978, the voters in the metropolitan areas of Clackamas, Multnomah and Washington counties made Metro responsible for coordinating the land-use and regional transportation plans of the region's 27 jurisdictions.

In 1995, the Metro Council adopted the 2040 Growth Concept to guide regional growth. The 2040 Growth Concept and the Regional Framework Plan, adopted in 1997 and updated in 2005, encourage growth in centers and corridors within an urban growth boundary and call for high capacity transit to serve the larger regional centers. The Regional Framework Plan requires transportation system management strategies, transit, bicycle and pedestrian system improvements, traffic calming, and land use strategies be considered to meet transportation needs before increasing motor vehicle capacity. The Regional Transportation Plan (RTP) links transportation investments to land use policy to implement the 2040 Growth Concept and sets the

course for future transportation decisions. These plans and policies have resulted in over 80 miles of light rail, commuter rail and streetcar lines built or planned for construction by 2016.

Beginning in 2008, working in collaboration with regional partners and the public, Metro developed the High Capacity Transit System Plan (HCT Plan) to guide the next high capacity transit investments, including light rail, commuter rail, bus rapid transit and rapid streetcar. The HCT Plan included supportive land use, transit oriented development, comprehensive parking programs, access for pedestrians and cyclists, park and rides, and feeder bus networks. In 2009, based on and public input and the analysis conducted for the HCT Plan, the Metro council approved the plan and adopted 16 potential high capacity transit corridors in four priority tiers. The Barbur/OR-99W corridor was in the top tier and was included as an element of the 2035 Regional Transportation Plan adopted by the Metro Council in 2010. In response, Metro initiated the Southwest Corridor Plan, a comprehensive transportation and land use planning effort, in 2011.

In July 2013, the Southwest Corridor Plan Steering Committee recommended further study of a set of high capacity transit alternatives, along with community investments in roadway, bicycle, pedestrian, parks, trails and natural area projects that would support the success of a transit project. The recommendations were based on the corridor vision adopted by the Steering Committee, which seeks to:

- Balance enhancing employment, housing choices, the environment and quality of life
- Use public resources efficiently, thoughtfully and equitably
- Stimulate private and public investment.

The combination of transit and community investments is designed to support the land use vision for the Southwest Corridor. The land use vision, which is built on plans developed by the local jurisdictions, prioritizes areas where development would support high capacity transit.

Project partners include:

- City of Beaverton
- City of Durham
- City of King City
- City of Portland
- City of Sherwood
- City of Tigard
- City of Tualatin
- Washington County
- TriMet
- Oregon Department of Transportation
- Metro