New Look
The Regional Transportation Plan

**2035 Regional Transportation Plan Update**

Background Paper:

# A Profile of the Regional Transit System in the Portland Metropolitan Region

Prepared by:

METRO
PEOPLE PLACES • OPEN SPACES

February 14, 2007

**Metro**
**People places • open spaces**

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and good transportation choices for people and businesses in our region. Voters have asked Metro to help with the challenges that cross those lines and affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to protecting open space, caring for parks, planning for the best use of land, managing garbage disposal and increasing recycling. Metro oversees world-class facilities such as the Oregon Zoo, which contributes to conservation and education, and the Oregon Convention Center, which benefits the region's economy.

**Your Metro representatives**

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Metro Councilors – Rod Park, District 1; Brian Newman, District 2; Carl Hosticka, deputy council president, District 3; Kathryn Harrington, District 4; Rex Burkholder, District 5; Robert Liberty, District 6.
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**List of RTP Background Research Papers**

- **Environmental Justice** in Metro's Transportation Planning Process
- A Profile of **Security** in the Portland Metropolitan Region
- A Profile of the **Regional Trends and Travel Characteristics** in the Portland Metropolitan Region
- A Profile of the **Regional Bicycle System** in the Portland Metropolitan Region
- A Profile of the **Regional Transit System** in the Portland Metropolitan Region
- A Profile of the **Regional Pedestrian System** in the Portland Metropolitan Region
- A Profile of **Regional Travel Options and Parking Management Systems** in the Portland Metropolitan Region
- A Profile of the **Regional Freight Transportation System** in the Portland-Vancouver Metropolitan Region
- **Preliminary Financial Analysis** for the 2035 Regional Transportation Plan Update
- A Profile of **Safety** in the Portland Metropolitan Region
- A Profile of the **Regional Roadway System** in the Portland Metropolitan Region
- A Profile of **Key Environmental Issues and Metro's Mitigation-Related Activities** in the Portland Metropolitan Region

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# 2035 Regional Transportation Plan Update

# A Profile of the Regional Transit System in the Portland Metropolitan Region

## TABLE OF CONTENTS

# LIST OF TABLES AND FIGURES

## I. INTRODUCTION

This paper is one of a series of papers that provide background research and analysis to guide Regional Transportation Plan (RTP) update policy discussions. The papers describe trends and research affecting the regional transportation system, current regional transportation planning policies and regulatory requirements, a profile of the existing transportation system and policy implications to be addressed in the RTP to respond to identified policy gaps and key findings of the background research. Collectively, the background papers will inform future policy discussions by Metro Policy Advisory Committee (MPAC), Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council and lead to an updated RTP.

This paper provides a profile of the regional transit system in the Portland Metropolitan region. It highlights key trends and research in public transportation and reports on the existing regional public transportation system. The trends shaping future public transportation travel and performance of the current regional public transportation system are essential considerations for the development of effective goals and strategies to address transit travel needs in the Portland metropolitan region. The paper concludes with a list of key findings and policy recommendations to be considered during the RTP update process.

## II. BACKGROUND

A major component of a balanced, regional multi-modal transportation system is transit. Transit efficiently links other travel options in the region, including bicycling and walking. Additionally, park and ride lots offer motor vehicle drivers with a transit connection and alternative to single occupant vehicle travel to work or other destinations. TriMet bus and MAX light rail operations as well as other emerging transit service providers give individuals transportation options and will play an important role in shaping the future growth of the Portland metropolitan region.

Transit is a key component of the 2040 Growth Concept and supports the six 2040 Fundamentals adopted by the region in 1997:

1. *Healthy Economy*
2. *Vibrant Communities*
3. *Environment Health*
4. *Transportation Choices*
5. *Equity*
6. *Fiscal Stewardship*

Transit supports a *healthy economy* by providing essential linkages to regional and town centers throughout the region. These connections support job growth by supplying workers with access to job and business centers. Additionally, transit offers an alternative to the automobile and can help reduce the number of cars on the road. Reductions in traffic volume help manage congestion and improve the movement of freight across the region.

Transit supports the concept of *vibrant communities* and helps to encourage compact, mixed-use development. This type of development relies on a transit system to support the higher density development necessary to address mobility and provide access to new development. Transit spawns transit-oriented development that offer walkability and mobility based on the transit options, encouraging social interaction and creating interesting 24-hour neighborhoods.

Similarly, transit preserves *environmental health*. Alternative transportation allows for more compact development that preserves the natural environment and agricultural land, reduces air pollution and is more energy efficient. A public transportation system that is fast, reliable and that has competitive travel times to the automobile provides individuals with *transportation choices*. It facilitates access to bicycle and pedestrian facilities and supports regional goals to increase the percentage of trips made by bicycling, walking and transit to provide an integrated system of travel options.

Transit addresses issues of transportation *equity* by offering equitable access for individuals of all income levels and special needs residents of the region, including seniors and people with disabilities. Public transportation also serves the economically disadvantaged throughout the region by connecting low-income individuals to employment areas and related social services. Equity also applies to the allocation of services and distribution of new transit equipment and amenities across the region. Transit also helps to support *fiscal stewardship* as investments in public transportation, although in some cases as capital intensive as major road projects, have higher returns on investment and lower long-term maintenance and preservation costs compared to roadway projects[1].

## III. TRENDS AND RESEARCH

### *Increasing Interest in Economic Benefits of Transit*

A topic of recent critical interest is the strength and competitiveness of the region's economy based on the extent, condition and performance of transportation. Evidence is mounting suggesting that the region is under investing in the transportation network that is directly connected to our economic interests. With that in mind, and as competition grows for limited transportation funding resources, it is important to examine the economic benefits of public transportation.

Investment in public transportation produces a variety of positive economic impacts. Studies have shown that transit capital investment is a significant source of job creation as well as increased revenues for local businesses. A report by Cambridge Systematic Inc. found that for every $10 million dollars invested in transit, 314 jobs are created in the year following investment and businesses realize a gain in sales three times the

[1] Camph, Donald H. "Dollars and Sense: The Economic Case For Public Transportation in America." July 1997. < http://www.ctaa.org/pubs/dollars/>.

investment ($30 million)[2]. Additionally, transit has been shown to produce a high net return on investment (4 or 5 to 1)[3]. This high rate of return is substantial considering the federal investment in transit is less than a third than for highway projects. Other economic impacts include "quality of life" benefits, changes in land use, social welfare benefits and reductions in other public sector costs, but these are difficult to quantify and require more analysis.

*Economic Development and Transit Oriented Development (TOD)*

Transit Oriented Development (TOD) refers to compact, mixed-use developments that are centered on high quality transit like light rail or commuter rail stations. National research purports that TODs offer multiple primary and secondary benefits listed in Table 1.

**TABLE 1. Transit Oriented Development Benefits**

| Class of Benefit | Benefit Recipient | |
|---|---|---|
| | Public Sector | Private Sector |
| Primary | Increased transit ridership | Increase land values, rents, and real estate performance |
| | Neighborhood revitalization | |
| | Increase in affordable housing | |
| Secondary/Collateral | Ease of traffic congestion and VMT-related costs, like pollution and fuel consumption | Increase retail sales |
| | Increase sales and property tax revenue | Increased access to labor pools |
| | Reduce sprawl/conserve open space | Reduced parking costs |
| | Reduce road expenditures and other infrastructure outlays | Increased physical activity |

TCRP 102 [4]

Research on TODs in the Portland metropolitan region shows similar benefits. A survey of four TODs (Orenco/NW 231st Station, Elmonica/SW 170th Avenue Station, Beaverton Central, and The Merrick/Convention Center MAX) revealed increases in transit ridership, 15 percent of riders are 65 years old and older, and that residents of TODs take transit to work or school at a higher rate with 23-33 percent using it as their primary mode of transportation[5].

[2] "Public Transportation and the Nation's Economy: A Quantitative Analysis of Public Transportation's Economic Impact." Cambridge Systematics, Inc. p. E-1. Oct. 1999.
[3] Camph, Donald H. "Dollars and Sense: The Economic Case For Public Transportation in America." July 1997. < http://www.ctaa.org/pubs/dollars/>.
[4] "Transit-Oriented Development in the United States: Experiences, Challenges and Prospects." TCRP 102. p. 120. Jan. 2004.
[5] Dill, Jennifer. "Travel and Transit Use at Portland Area TODs." p. 49-50. May 2006.

### *Increasing Understanding of Other Benefits of Transit*

With rising fuel prices transit ridership across the country is increasing[6]. More focus has been given to expanding bus and rail services. Critics claim that such transit expansions are capital intensive, present little impact on congestion and are not cost effective. Recent research shows quite the opposite. Research compiled by the Victoria Transportation Policy Institute shows that high quality, transit in exclusive right-of-way helps ease congestion. Traffic congestion growth rates have actually been shown to decline in several U.S. cities after the establishment of light rail service[7]. Additionally, per capita congestion delay is significantly lower in cities with high quality rail transit systems than in otherwise comparable cities with little or no rail service[8]. The VTPI research also compares the relative advantages of bus and rail transit investments.

Both buses and rail have positive effects on mobility. Because rail transit offers a higher quality of service (speed, comfort and integration with land use) it often attracts more choice riders than buses. Rail transit is also regarded as predictable, meaning the route and travel times are consistent and clearly apparent to the user. Buses on the other hand offer flexibility because they require smaller investments in special facilities like bus stops, signage, and maintenance garages. However, when similar sized US cities were compared, those with bus-only systems and those with bus and rail systems fared differently over the period from 1996 – 2003. Over this period, bus and rail cities saw ridership grow sixteen percent compared with 1.7 percent in bus only cities[9]. As of 2003, New Start rail cities experienced 74 percent less in operating and maintenance costs per passenger mile than bus only cities[10].

### *Increasing Emphasis on Accessibility and Service Coordination*

Regionally, research has focused on the accessibility of transit services to the elderly and disabled. The population of seniors is growing, particularly at the edges of the Metro region. TriMet offers LIFT demand-response service to transport the elderly and disabled. LIFT ridership has averaged 7.1 percent annually for the last five years with the cost per one-way trip climbing to $22[11]. Annual operating costs are increasing $1.5 million annually. Research shows that between 35 percent and 59 percent of LIFT riders could potentially walk and use existing fixed route transit. However, barriers exist like discontinuous sidewalk segments and a lack of transit stops/destinations within a quarter of a mile of where the elderly and disabled reside. The study suggests that a focus should be put on providing housing for the elderly and disabled along transit corridors. However,

[6] The American Public Transportation Association publishes quarterly reports of transit ridership for the nations transit providers. Ridership numbers across the nation increased by varying degrees coinciding with the gas price increases. For specific ridership numbers and more information: <http://www.apta.com/research/stats/ridership/riderep/indexus.cfm>

[7] Litman, Todd. "Comprehensive Evaluation of Rail Transit Benefits."

[8] Litman, Todd. "Comprehensive Evaluation of Rail Transit Benefits."

[9] Litman, Todd. "Comprehensive Evaluation of Rail Transit Benefits."

[10] Litman, Todd. "Comprehensive Evaluation of Rail Transit Benefits."

[11] "Elderly and Disabled Transportation and Land Use Study." p. 19.

current zoning often precludes locating housing for the elderly or disabled in transit corridors. Additionally, an emphasis should be placed on addressing issues of sidewalk connectivity near existing bus stops and MAX light rail stations.

Issues of sidewalk connectivity do not just affect the elderly and disabled. TriMet research shows that the majority of riders access transit by walking. Roughly ninety percent of the Metro region's population lives within half-mile of a bus stop or light rail station. However, sidewalks connect only 69 percent of the stops[12]. The 2007 TriMet Transit Investment Plan (TIP) emphasizes the "total transit system." This is defined as focusing on service, reliability, passenger amenities, customer information and access. The total transit system is the number one priority of the 2007 TIP, over capital investment in new bus and light rail service. Another recent TriMet focus is the increased development of frequent service buses that operate on headways of fifteen minutes or less.

The TCRP recently published Report 91, "Economic Benefits of Coordinating Human Service Transportation and Transit Services." This report examines the net economic benefits associated with various strategies and practices for coordinating human service transportation and general public transit, provides quantitative estimates of these strategies and practices, and identifies innovative and promising coordination strategies and practices. Human service is defined as the transportation services offered to the elderly and disabled generally consisting of demand responsive paratransit and dial-a-ride services. Some of the economic benefits of coordinating human service transportation and fixed route service identified were:

- Increased efficiency – reduced cost per vehicle hour or per mile
- Increased productivity – more trips per month or passengers per vehicle hour
- Enhanced mobility – increased access to jobs or health care, or trips provided to passengers at a lower cost per trip
- Additional economic benefits – increased levels of economic development in the community or employment benefits for those persons associated with the transportation service[13]

There are additional benefits from coordinating services that are not expressed in economic terms including: improving service quality and expanding availability of services to more people and larger geographic areas[14]. With such tangible benefits research supports exploring more regional level service coordination efforts.

There are numerous human service transportation providers in the region, each offering similar transportation options. In addition, the population of seniors is growing, particularly at the edges of the region. Providers range from other transit agencies like

[12] TriMet. "2007 Transportation Improvement Program." p. 10.
[13] "Economic Benefits of Coordinating Human Service Transportation and Transit Services." TCRP 91. p. 2. March 2003.
[14] "Economic Benefits of Coordinating Human Service Transportation and Transit Services." TCRP 91. p. 2. March 2003.

South Metro Area Rapid Transit (SMART) and non-profit providers like Ride Connection, Inc. Each provides demand response services for the elderly and disabled. With multiple providers and overlapping services within a region, there is a need for more coordination of services.

### *Increasing Interest in Commuter Rail*

The feasibility of commuter rail depends on many factors. Ultimately, the feasibility of commuter rail is based largely on the costs and ridership. The studies that have been done to date show that adequate ridership does not currently exist in most corridors. However, the most recent Oregon Transportation Plan (OTP) update identified a research trend towards commuter rail. One OTP background paper examined commuter rail feasibility and potential throughout Oregon as well as identifying possible policy changes. Citing the Beaverton to Wilsonville project as an example, the paper suggests that commuter rail is a transportation mode that can potentially support compact, mixed-use development that provides necessary connections between other modes (i.e. bike, pedestrian and other transit) and better connect communities.

A significant challenge is that commuter rail is limited to existing rail lines and requires complex agreements with freight rail operators, which may preclude its development in some corridors. The paper recommends that the new OTP continue to support commuter rail as a viable alternative as well as encouraging ODOT to work with MPOs in developing agreements with the railroads where service would extend beyond a community's traditional service boundary. The following corridors have been identified for study to determine the feasibility of potential commuter rail service as population and employment centers expand in the region:

- Portland-Milwaukie-McMinnville-Corvallis-Eugene
- Portland-Scappose-St. Helens
- Wilsonville-Salem

Many factors need to be taken into consideration when evaluating the feasibility of service, including impacts to freight service movement, rail line ownership, cost-effectiveness of proposed service for anticipated ridership and other social and environmental impacts and benefits.

### *Increasing Emphasis on A Coordinated and Integrated Transportation System*

Another OTP background paper explored the shifts in direction of public transportation in Oregon. The research identifies the shift in TriMet's focus to considering the total trip experience, emphasizing the quality of the transit customer's experience, utilizing state-of-the-art information technologies to aid travelers, and concentrating on mobility. TriMet's new emphasis not only includes exploring service expansion, but also seeks to address access issues by identifying sidewalk gaps and dangerous roadway crossings that effect ridership. These issues all center on managing the existing transit system. Additionally, the paper suggests encouraging integration of small city service providers.

An example is facilitating better connections between SMART and TriMet. Similar partnerships should be explored at the edges of the TriMet service boundary.

### *Growth in Suburban-to-Suburban Commuting Travel*

Mobility is becoming increasingly complex. Significant economic and population growth is occurring in suburban communities throughout the region, creating a complex environment for the provision of transit service. In many cases, these communities are less dense and more auto dependent environments making traditional fixed route service difficult and costly. Increasingly, the region's transit agencies are struggling with how to provide services in areas that cannot support fixed-route services. Some of the alternatives are developed with the goal of expanding transit service coverage counter to the goal of fixed-route service in maximizing productivity.[15] Changing commute trip patterns necessitate a rethinking of traditional geographic and political boundaries of service areas and the current model of service provision in the region.

Employment centers in Oregon have moved towards less dense suburban areas that are not easily served by traditional suburban-to-center transit spokes[16]. One new response to the changing travel patterns may be commuter rail. The proposed Beaverton to Wilsonville commuter rail would provide a suburb-to-suburb transit connection as well as a linkage to TriMet's MAX light rail system and bus service. The paper also concludes that the role of transit in sustainable development needs to be defined and that mobility needs to be defined in a way such that it considers total trips and total mobility as opposed to simply transit linkages, a trend that is evident in the focus of TriMet's service planning activities and Transit Investment Plan.

### *Increasing Emphasis on Managing the System and Intelligent Transportation Systems (ITS)*

Intelligent Transportation Systems (ITS) apply advanced and emerging technologies in information processing, communications, control, and electronics to surface transportation needs. Examples of Transit ITS applications, in addition to those mentioned above, include fixed-route and paratransit software, electronic fare payment, in-vehicle transit information, and station/facility surveillance. Figure 1 lists various ITS applications used across the country and by TriMet.

One of the major transit ITS investments has been the use of priority signalization on frequent service bus routes throughout the City of Portland. Frequent Service buses are given traffic signal priority, using a wireless system that holds green lights a few seconds longer to allow a bus to go through when it's behind schedule[17]. In the first phase of the project the City of Portland has upgraded 275 signals to use this technology. The benefits of this investment include increasing bus performance and mobility.

[15] "Guidebook for Evaluating, Selecting, and Implementing Suburban Transit Services." TCRP 116. p. 1-2. June 2006.
[16] OTP Background Paper. "Shifts in Direction of Public Transportation." p. 13.
[17] For more information visit TriMet. <http://www.trimet.org/bus/frequentservice.htm>

FIGURE 1


Federal Transit Administration ITS Matrix[18]

[18] Federal Transit Administration ITS Matrix. <http://itsweb.mitretek.org/its/aptsmatrix.nsf/framemain?OpenFrameSet>.

## IV. POLICY AND REGULATORY FRAMEWORK

### *Federal*

Congress enacted the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991. ISTEA gave Metropolitan Planning Organizations (MPOs) increased funding, expanded authority to select projects and mandates for new planning initiatives in their regions. The legislation also focused on improving transportation not as end in itself but as the means to achieve important national goals including economic progress, cleaner air, energy conservation and social equity. ISTEA promoted a transportation system in which all modes and facilities were integrated to allow a "seamless" movement of both goods and people. New funding programs provided greater flexibility in the use of funds, supported improved "intermodal" connections and emphasized upgrades to existing facilities over building new capacity – particularly roadway capacity.

To accomplish these goals, ISTEA doubled funding for MPO operations and required the agencies to evaluate a variety of multimodal solutions to roadway congestion and other transportation problems. MPOs were also required to broaden public participation in the planning process and see that investment decisions contributed to meeting the air quality standards of the federal Clean Air Act Amendments.

Congress passed the Transportation Equity Act for the 21st Century (TEA-21) in 1998. It reduced the 15 planning factors from ISTEA to seven and continued the majority of its predecessor's programs. TEA-21 recognized that transportation investments impact the economy, environment, and community quality of life.

In 2005, Congress built on both ISTEA and TEA-21 with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU addresses the many challenges facing our transportation system today, such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decision makers more flexibility for solving transportation problems in their communities.

All provisions for Metropolitan Planning are consolidated in a new section 5303. The requirement for separate transportation plans and transportation improvement programs is maintained. The Long Range Transportation Plan and the Transportation Improvement Program are to be updated every four years. Provisions regarding Transportation Management Areas (TMAs) are included in the metropolitan transportation planning section. Metropolitan Planning Organizations (MPOs) are encouraged to consult or coordinate with planning officials responsible for other types of planning activities affected by transportation. Safety and security are factors to be included in metropolitan planning.

In developing a Long Range Transportation Plan, MPOs are now required to include transit agencies in making funding estimates; consult with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation; and have a participation plan that provides reasonable opportunities for all parties' comments.

Other key changes for transit are:

- Preserved key features of the two previous authorization acts providing flexibility for state and local decision makers and emphasizing multi-modal solutions to major transportation challenges.
- Increased funding for rural transit significantly, which will help systems meet escalating operational costs and allow for modest service expansion.
- Provided funding for non-motorized alternative transportation, including a Safe Routes to School program.
- Establishes a new Small Starts Program as part of the New Starts Program for smaller transit projects such as Bus Rapid Transit. However, the discretionary nature of the New Starts program, which is the second largest transit program, makes it difficult to predict the total level of transit funding the region might receive over the life of the bill.

### *State*

*Transportation Planning Rule (TPR)*

In 1991, the Land Conservation and Development Commission adopted the Oregon Transportation Planning Rule (TPR). The TPR implements State Land Use Planning Goal 12, Transportation[19], which was adopted by the Oregon Legislature in 1974. The TPR requires most cities and counties and the state's Metropolitan Planning Organizations, such as Metro, to adopt transportation system plans that consider all modes of transportation, energy conservation and avoid principal reliance on any one mode to meet transportation needs. By state law, local plans in MPO areas must be consistent with the regional transportation system plan (TSP). In the Portland metropolitan region, the Regional Transportation Plan serves as the regional TSP. Likewise, the regional TSP must be consistent with the OTP and TPR.

The TPR defines mass transit as any form of passenger transportation that carries members of the public on a regular and continuing basis. The state TPR also requires that transportation system plans provide an adequate system of improvements that meet adopted performance measures. TPR requirements for public transportation planning include:

- Mandates that transportation planning in Oregon reduce reliance on any one mode of transportation.
- Requires vehicle miles traveled (VMT) per capita reduction targets for local jurisdictions. The RTP identifies 2040 Non-SOV modal targets in place of and consistent with the requirement to reduce VMT per capita. As required by the

[19] Goal 12 states, "To provide and encourage a safe, convenient, and economic transportation system."

TPR, jurisdictions within the Metro region must adopt policies and actions that support an increase in the share of trips by walking, bicycling, transit and shared ride.

Recent updates to the TPR do not affect the requirements for public transportation planning.

*Oregon Transportation Plan (OTP)*
Amended in September 2006 by the Oregon Transportation Commission, the OTP includes several policies that address public transportation:

- Policy 1.1 – Development of an Integrated Multimodal System
- Policy 1.2 – Equity, Efficiency, and Travel Choices
- Policy 1.3 – Relationship of Interurban and Urban Mobility
- Policy 3.2 – Moving People to Support Economic Vitality
- Policy 3.4 – Development of the Transportation Industry
- Policy 4.3 – Creating Communities
- Policy 5.1 – Safety
- Policy 5.2 – Security

Most requirements will be included in specific modal plans. Future RTP updates will be developed to be consistent with the updated state Public Transportation plan.

***Regional***
*Metro Charter*
In 1979, the voters in this region created Metro, the only directly elected regional government in the nation. In 1991, Metro adopted Regional Urban Growth Goals and Objectives (RUGGOs) in response to state planning requirements. In 1992, the voters of the Portland metropolitan area approved a home-rule charter for Metro. The charter identifies specific responsibilities of Metro and gives the agency broad powers to regulate land-use planning throughout the three-county region and to address what the charter identifies as "issues of regional concern." Among these responsibilities, the charter directs Metro to provide transportation and land-use planning services. The charter also directed Metro to develop the 1997 Regional Framework Plan that integrates land-use, transportation and other regional planning mandates.

*Regional Framework Plan*
Updated in 1995 and acknowledged by the Land Conservation Development Commission in 1996, the RUGGOs establish a process for coordinating planning in the metropolitan region in an effort to preserve regional livability. The 1995 RUGGOs, including the 2040 Growth Concept, were incorporated into the 1997 Regional Framework Plan to provide the policy framework for guiding Metro's regional planning program, including development of functional plans and management of the region's urban growth boundary. The Regional Framework Plan is a comprehensive set of policies that integrate land-use, transportation, water, parks and open spaces and other important regional issues consistent with the 2040 Growth Concept. The Framework Plan is the regional policy basis for Metro's planning to accommodate future population and employment growth and achieve the 2040 Growth Concept.

*2040 Growth Concept*

The 2040 Growth Concept text and map identify the desired outcome for the compact urban form to be achieved in 2040. It envisions more efficient land use and a diverse and balanced transportation system closely coordinate with land use plans. Bicycling is an important element of the transportation concept envisioned in Region 2040. The 2040 Growth Concept has been acknowledged to comply with statewide land use goals by the Land Conservation and Development Commission (LCDC). It is the foundation of Metro's 1997 Regional Framework Plan.

*2004 Regional Transportation Plan*

The RTP implements the goals and policies in 1995 RUGGOs and the 1997 Regional Framework Plan, including the 2040 Growth Concept. The region's planning and investment in the regional public transportation system are directed by current RTP policies and objectives for the regional public transportation system as shown in Table 1.

REGIONAL PUBLIC TRANSPORTATION POLICIES

**Policy 14.0. Regional Public Transportation System**
Provide an appropriate level, quality and range of public transportation options to serve this region and support implementation of the 2040 Growth Concept, consistent with Figures 1.15 and 1.16.

a. Objective: Serve this region with appropriate public transportation service as defined in Figures 1.15 and 1.16.
b. Objective: Continue to work with local jurisdictions and TriMet to implement TriMet's Transit Choices for Livability community transit plan.
c. Objective: Provide transit service that is accessible to the mobility impaired and provide para-transit to the portions of the region without adequate fixed-route service to comply with the Americans with Disabilities Act of 1990.
d. Objective: Develop a long-term strategy for potential use of freight railroad lines for passenger use and work with jurisdictions inside and outside of the Metro area to explore other commuter rail opportunities.

**Policy 14.1. Public Transportation Awareness and Education**
Expand the amount of information available about public transportation to allow more people to use the system.

a. Objective: Increase awareness of public transportation and how to use it through expanded education and public information media and easy to understand schedule information and format.
b. Objective: Improve mechanisms for receiving and responding to feedback from public transportation users.
c. Objective: Explore new technologies to improve the availability of schedule, route, transfer and other service information.

**Policy 14.2. Public Transportation Safety and Environmental Impacts**
Continue efforts to make public transportation an environmentally friendly and safe form of motorized transportation.

a. Objective: Continue to reduce the amount of air pollutants and noise generated by public transportation vehicles.
b. Objective: Support efforts by the region's transit providers to improve the existing level of passenger safety and security on public transportation and reduce the number of avoidable accidents involving transit vehicles.

**Policy 14.3. Regional Public Transportation Performance**
Provide transit service that is fast, reliable and has competitive travel times compared to the automobile.

a. Objective: Transit travel time (in-vehicle) for trips on light rail transit and rapid bus routes during the peak hours of service should be no slower than 150 percent of the auto travel time during the off-peak hours. Exceeding this threshold would result in considering preferential treatment to the road system for transit and express operation.
b. Objective: Total transit travel time (in-vehicle + non-weighted wait time) for trips on regional bus routes should be no slower than 200 percent of the total auto travel time.

**Policy 14.4. Special Needs Public Transportation**
Provide an appropriate level, quality and range of public transportation options to serve the variety of special needs individuals in this region and support the implementation of the 2040 Growth Concept.

a. Objective: Continue to work with TriMet, SMART, special needs providers, and local jurisdictions to meet the adopted minimum standards for service levels established for the Metro area.
b. Objective: Ensure public transportation that serves the special needs population is sensitive to and balances the cultural, functional or age related needs of the elderly and disabled individuals with the need to utilize resources in a cost-effective manner.
c. Objective: Improve the accountability of the special needs transportation network by enhancing customer input and feedback opportunities.
d. Objective: Support informal (family, neighbors, self) and formal (paid and volunteer special needs transportation options by establishing training and information services.

**14.4 Special Needs Public Transportation**
Provide a seamless and coordinated public transportation system for the special needs population.
a. Objective: Continue to work with TriMet, SMART special needs providers, and local jurisdictions to provide a customer information system that improves community familiarity with, access to and understanding of the elderly and disabled transportation network.
b. Objective: Employ technology to create a seamless, coordinated and single point of entry system for the user's ease that maximizes efficiency of operation, planning and administrative functions.

**14.7 Special Needs Public Transportation**
Encourage the location of elderly and disabled facilities in areas with existing transportation services and pedestrian amenities.
a. Objective: Encourage new and existing development to create and enhance pedestrian facilities near elderly and disabled developments, including sidewalks, crosswalks, audible signals, etc. and provide incentives for the future pedestrian orientation in areas serving elderly and disabled individuals.
b. Objective: Incorporate elderly and disabled housing into mixed use developments that includes public facilities such as senior centers, libraries and other public services as well as commercial and retail services such as stores, medical offices and other retail services.
c. Objective: Provide for audible signals, curb cut tactile strips and appropriately timed signalized crosswalks at major retail centers or near bus stops for arterial street, high volume neighborhood circulators or other major roadways near elderly or disabled facilities or in neighborhoods with significant elderly or disabled populations.

Metro's role is to establish a 20-year plan for regional transit improvements through the RTP. TriMet is the primary public transportation provider for the metropolitan region and is committed to providing the appropriate level of transit service to achieve regional 2040 Growth Concept objectives. TriMet implements transit improvements identified in the RTP through annual updates and expansions to their service plan. This also includes improvements to community level transit service.

The TGM Modal Targets survey was produced in July 2005. The report examined Metro's 2040 modal targets incorporated into the 2004 RTP that establish Non-Single Occupancy Vehicle (Non-SOV) targets to reduce vehicle miles travel per capita. For Central City, Regional and Town Centers, and Industrial and Employment Areas the modal targets are 60-70 percent, 45-55 percent, and 40-45 percent respectively. To help achieve these targets the report offered the following recommendations to:

- Construct bicycle and pedestrian improvements as required by state and federal, and consistent with local TSPs and regional guidelines. Improvements should be prioritized that enhance connectivity of the bicycle and pedestrian system and access to transit.
- Continued provision of frequent, reliable, and comprehensive transit service by TriMet and other transit agencies.

A variety of transit strategies were offered as a means of achieving the modal targets. Each strategy seeks to increase transit ridership by enhancing convenience, cost savings, accessibility and mobility. Because convenience is often cited as the most important factor in shifting drivers to other forms of travel, the frequency of bus service and overall accessibility of transit services are essential to reducing SOV trips. Making bus service improvements and efficient demand responsive/ADA service adjustments can increase transit ridership. High-capacity transit (HCT) like bus rapid transit and light rail transit provide frequent, fast and reliable service. Changes in transit pricing, like with fareless square is another way to increase transit ridership.

## V. REGIONAL TRANSIT SYSTEMS PROFILE

### *TriMet Services*

Created in 1969 by the state, TriMet is the primary transit service provider in the Metro region. The TriMet service district now encompasses 575 square miles and serves 1.3 million people in the urban portions of Clackamas, Multnomah, and Washington counties. More than one-half of the district's population lives within one-half mile of TriMet service that operates every 15 minutes or better. Ninety percent of the Metro population lives within one-half mile of TriMet service. TriMet operates the bus system, the MAX Light Rail System as well as LIFT service and Medical Transportation Programs to meet the needs of elderly and disabled individuals.

TriMet's fixed route service is comprised of bus and rail lines. It operates 626 buses that serve more than ninety bus lines and seasonal shuttles. Currently there are 16 frequent bus service routes covering 164 miles that offer riders fifteen minute or better service seven days a week. The MAX Light Rail has three routes and is 44 miles long. Ridership on bus and rail lines has increased every year since 1988.

**TABLE 2. Fixed Route Summary**

**Fixed Route Summary**

| | MAX Light Rail | Frequent Service Bus | Standard Service Bus |
|---|---|---|---|
| Routes | 3 | 16 | 77 |
| Length | 44 miles | 164 miles | 728 miles |

TriMet 2007 Transit Improvement Program

## TABLE 3. MAX Light Rail Summary

**MAX Light Rail Summary**

| Line | Segment | Opening Date | Length (Miles) | Annual Ridership Opening Year | Annual Ridership FY 2006 | Stations | Park & Ride Spaces |
|---|---|---|---|---|---|---|---|
| **Blue** - Hillsboro to Gresham | Eastside - Portland to Gresham | September 1986 | 15 | 6,600,000 | 32,591,800 | 30 | 3,054 |
| | Westside - Hillsboro to Portland | September 1998 | 18 | 5,900,000 | | 20 | 3,613 |
| **Red** - Beaverton to Airport | Airport - Gateway to Airport | September 2001 | 5.5 | 571,484 | | 4 | 193 |
| **Yellow** - City Center to Expo | Interstate - Rose Quarter to Expo | May 2004 | 5.8 | 3,900,000 | | 10 | 604 |

TriMet 2007 Transit Improvement Program

## TABLE 4. Top 25 Transit Routes in TriMet Service Boundary

| Route Description | Boarding Rides | Rides Per Revenue Hour | Rides Per Vehicle Hour | Cost Per Ride | Passenger Miles | Passenger Miles Per Vehicle Mile | Average Trip Length |
|---|---|---|---|---|---|---|---|
| 100 - MAX Blue Line | 66,090 | 223.30 | 190.00 | $1.04 | 420,810 | 68.90 | 6.4 |
| 090 - MAX Red Line | 24,490 | 165.00 | 132.60 | $1.49 | 105,670 | 35.30 | 4.3 |
| 072 - Killingsworth / 82nd Ave | 17,540 | 73.80 | 55.50 | $1.47 | 65,840 | 16.20 | 3.8 |
| 190 - MAX Yellow Line | 11,500 | 137.30 | 96.40 | $2.05 | 30,620 | 25.90 | 2.7 |
| 075 - 39th Ave / Lombard | 10,560 | 50.70 | 40.50 | $2.02 | 39,940 | 11.90 | 3.8 |
| 020 - Burnside / Stark | 9,110 | 43.80 | 35.70 | $2.29 | 38,460 | 10.50 | 4.2 |
| 109 – Powell | 8,490 | 66.90 | 52.80 | $1.55 | 34,050 | 16.00 | 4.0 |
| 014 – Hawthorne | 8,420 | 62.70 | 43.80 | $1.87 | 27,480 | 13.10 | 3.3 |
| 104 – Division | 8,370 | 58.30 | 46.30 | $1.76 | 36,630 | 14.30 | 4.4 |
| 006 - ML King Jr Blvd | 8,290 | 61.90 | 45.80 | $1.78 | 30,780 | 14.20 | 3.7 |
| 071 - 60th Ave / 122nd Ave | 8,010 | 45.20 | 36.50 | $2.24 | 31,250 | 10.50 | 3.9 |
| 004 – Fessenden | 7,720 | 58.30 | 45.30 | $1.81 | 28,840 | 13.30 | 3.7 |
| 057 - TV Hwy / Forest Grove | 6,730 | 50.40 | 37.10 | $2.20 | 36,710 | 13.20 | 5.5 |
| 015 – Belmont | 6,520 | 54.20 | 42.40 | $1.93 | 22,930 | 11.70 | 3.5 |
| 012 - Barbur Blvd | 6,260 | 52.70 | 39.70 | $2.06 | 33,680 | 14.50 | 5.4 |
| 112 - Sandy Blvd | 5,680 | 51.30 | 39.80 | $2.05 | 24,420 | 12.40 | 4.3 |
| 033 – Mc Loughlin | 5,270 | 44.70 | 35.20 | $2.32 | 37,790 | 16.10 | 7.2 |
| 117 – Holgate | 4,850 | 52.10 | 42.10 | $1.94 | 19,920 | 13.30 | 4.1 |
| 008 - NE 15th Avenue | 4,750 | 48.20 | 34.30 | $2.38 | 16,280 | 11.00 | 3.4 |
| 077 – Broadway / Halsey | 4,720 | 35.50 | 27.70 | $2.95 | 20,730 | 9.30 | 4.4 |
| 108 - Jackson Park | 4,110 | 82.40 | 69.20 | $1.18 | 10,000 | 13.70 | 2.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 119 – Woodstock | 3,930 | 40.20 | 32.10 | $2.55 | 18,720 | 11.30 | 4.8 |
| 052 - Farmington / 185th Ave | 3,560 | 46.30 | 34.30 | $2.38 | 13,790 | 10.80 | 3.9 |
| 044 - Capitol Highway | 3,310 | 56.90 | 39.80 | $2.05 | 14,580 | 14.20 | 4.4 |

TriMet 2006

Table 4 shows the top 25 routes operated by TriMet. The rankings are by average weekday boarding rides.

The Portland Streetcar was constructed by the City of Portland and business owners and currently serves a six mile loop that links Riverplace, Portland State University, the Pearl District, the Northwest Neighborhood and MAX Light Rail. It is managed by a non-profit that was organized by the City, but is operated by TriMet personnel through an agreement with the City. Both the City of Portland and TriMet share operating costs.

**TABLE 5. Streetcar Ridership 2001 – 2006**

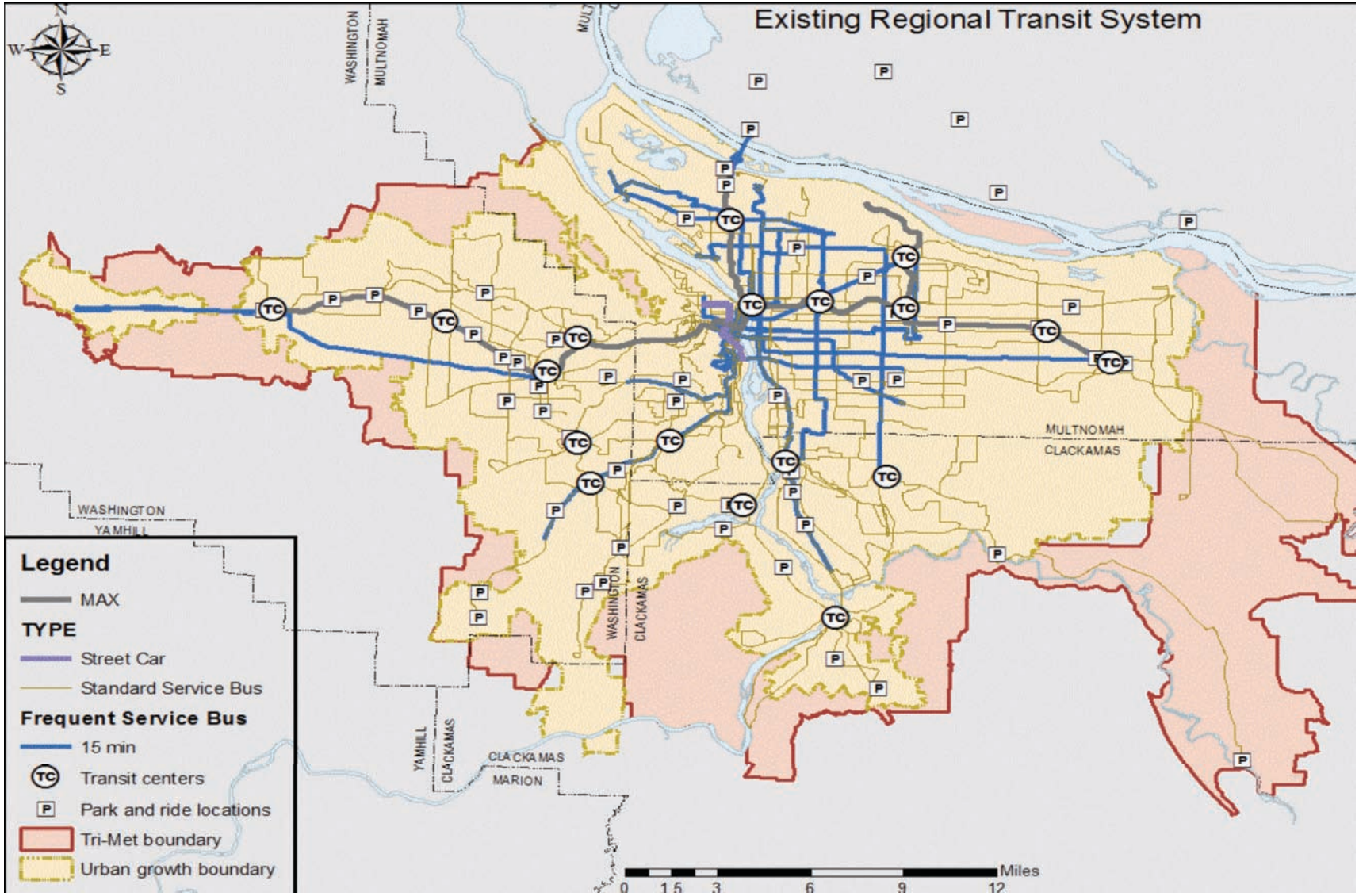
| MONTH | FY 01/02 | FY 02/03 | FY 03/04 | FY 04/05 | FY 05/06 |
|---|---|---|---|---|---|
| **TOTAL** | **1,357,878** | **1,653,648** | **1,872,133** | **2,191,097** | **2,587,033** |

Portland Streetcar

Table 5 shows annual ridership for the Portland Streetcar. Ridership has increased by an average of 17.4 percent since 2001.

LIFT services are door-to-door paratransit provided by TriMet to people who because of disability cannot use or access fixed route transit. TriMet offers services throughout the service district from 4 a.m. to 2 p.m. There are one million annual boardings on TriMet LIFT service with an average cost of $22. Ridership is growing at about 7.5 percent per year. LIFT has more than 10,000 registered customers and provides roughly 3,000 rides each weekday and about 920,000 rides annually.

Ride Connection, Inc. is a network of over thirty non-profit, community service organizations. It was established in 1988 to provide accessible transportation and to respond to community needs. Ride Connection, Inc. partners with TriMet in providing supplemental ADA paratransit and demand-responsive transportation. It uses volunteer drivers to offer a cheaper service and schedules more than 300,000 rides for 11,000 individuals annually.


Existing Regional Transit System
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Park and ride locations
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Urban growth boundary
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12

### *Other Regional Service Providers*

*South Metro Area Rapid Transit (SMART)*
SMART is operated by the City of Wilsonville with a payroll tax of 0.3 percent and has gradually expanded its services since 1989. When it first formed, SMART was only providing demand response service by contract. In 1991 it began operating demand response service on its own and in 1993 started providing fixed route service to the Tualatin Park and Ride lot and the Barbur Transit Center. Then in 1994, SMART started in town service. It offers five fixed route service throughout the City as well as connections to Canby, Salem, and the south end of Portland. SMART also provides Wilsonville residents with Dial-A-Ride service, a special demand response service for the elderly and the disabled. All in town services are provided to riders free of charge.

*Clark County Public Transportation Benefit Authority (C-TRAN)*
C-TRAN has been providing Clark County residents with public transit for more than 25 years. In 2005, C-TRAN services were reduced to the City of Vancouver and its Urban Growth Boundary. It currently offers fixed route service, premium commuter bus service to Portland, and dial-a-ride Paratransit service for the elderly and disabled. In all, C-TRAN operates seventeen local urban routes, eight premium commuter service routes, and five dial-a-ride routes.

*Sandy Area Metro (SAM)*
SAM has become the hub of transportation alternatives in east Clackamas County providing connectivity to the TriMet Bus/MAX in Gresham and the greater Portland Metropolitan region. Sandy Transit has grown from one bus on one route providing 77,000 rides in 2000 to seven vehicles on four fixed routes and a demand-response route that provided over 185,000 rides in 2005. Services now extend from Sandy east to the Hoodland Corridor, south to Estacada and west to Gresham and the greater Portland Metropolitan region. Services offer connections to TriMet in Gresham and Estacada. These services provide much needed regional access to jobs, education, shopping, social activities, medical and social services for transit dependent as well as discretionary riders. This transit system is critical to relieving costly traffic congestion on Highways 26 & 211 by taking 160,000 commute trips off those roads each year.

SAM also operates the Mountain Express, which began service in June 2004 with grants from Mount Hood Economic Alliance and ODOT Rural Transit funds. It operates a deviated fixed route six times daily on weekdays between Sandy and Rhododendron. Deviations are made for ADA eligible residents within a 3/4-mile of the route. Area residents who are elderly or have disabilities and need door-to-door transportation receive service to and from the Welches Senior Center. Ridership currently averages 1000 trips per month.

*South Clackamas Transit District (SCTD)*
The SCTD runs three deviated fixed route services. It provides service between Clackamas Community College and Molalla along Highway 213. Connections with TriMet lines can be made at the college.

*Canby Area Transit (CAT)*
CAT began service in September 2002 and currently operates three fixed routes. The three fixed routes all operate within the Canby city limits and offer a connection to the Oregon City transit center. Additionally, the routes link up with service provided by SMART that connects Canby with Wilsonville and with SCTD's Mollala to Canby service.

*Columbia County Rider (CCR)*
The CCR serves Columbia County and the communities of Scappoose, St. Helens, Columbia City, Raineer, Clatskenie and Verona. It currently offers two connections to TriMet and the Metro region. One connection goes from St. Helens to the Portland transit mall at 5th and Hoyt. Another route that recently started transports riders from St. Helens and Scappoose to the Portland Community College - Rock Creek campus and the Willow Creek Transit Station at 185$^{th}$ and Baseline Road connecting to the MAX Blue Line. The rest of CCR service is demand-response and service areas are the same as local school districts.

*Tillamook County Transportation District (TCTD)*
Tillamook County Transportation District was formed July 1, 1997 to serve the transportation needs of the residents and visitors to Tillamook County. TCTD provides three types of service, all wheelchair accessible. Dial-a-ride is a demand response curb-to-curb program that utilizes both paid and volunteer drivers who help people get around their communities. The TCTD also operates fixed route bus lines throughout the county on timed schedules, but may deviate off route to assist senior or disabled riders. InterCity provides daily bus service between Tillamook and metro Portland and connects riders to other forms of public transportation (AMTRAK, Greyhound, TriMet, Airport MAX). TCTD services are primarily supported by rider fares, state and federal grants, and a local permanent property tax levy with timber revenue sharing.

*Yamhill County Transportation (YCAP)*
YCAP offers a variety of fixed route, dial-a-ride and commuter express services. YCAP also operates Volunteer Medical Transport (VMT) that provides Yamhill County residents with transportation to medical appointments in the Portland area. VMT relies on volunteer drivers to operate the YCAP vans and provide this service free of charge. Chehalem Valley Senior Citizens Council provides dial-a-ride service to residents in Newberg and Dundee. YCAP offers fixed route service along Highway 47 between McMinnville and Hillsboro connecting to the MAX Blue Line. The 99W Corridor link operates along Highway 99W from McMinnville to Meridian Park Hospital and linking to TriMet in Sherwood. YCAP also provides funds for YAMCO that provides three fixed routes for McMinnville.

*Institutional Facilities Coalition (ICF)*
An often forgotten piece of the regional transportation system are those services that are offered by public and private institutions. The ICF represents research and educational institutions, colleges and universities, and hospitals and health care providers across the

region, many of which operate semi-private services to connect with TriMet. Lewis and Clark University, Portland Community College, Reed College, and the University of Portland each operate shuttle services that connect to TriMet. Annual ridership on these services is almost 250,000. It is also important to note the institutions represented by the ICF have higher than average demands for transit access.

It is also important to note that there exist a number of private and publicly funded service providers that serve specific clientele. Churches and other non-profits, as well as private businesses offer a variety of special shuttle services. Such providers are eligible to receive Job Access and Reverse Commute (JARC) funds to pay for these services. The tables below show they types of services offered using JARC funds and ridership figures.

**TABLE 6. Jobs Access Transportation Services in the Metro Region**

| Service | Description | Annual Rides |
|---|---|---|
| Community Cycling Center (CCC) - Create a Commuter Program | Social service clients are referred to the CCC and are eligible for a free (restored) bicycle and all necessary safety gear after completing safety and maintenance classes. Clients are encouraged to use their bikes on transit. | No direct rides provided |
| Swan Island Evening Shuttle | Evening shuttle service is available from 7pm to 12am to serve areas not covered by TriMet. | 13,295 |
| Tualatin Shuttle | Connects riders between TriMet service and the large Industrial district in Tualatin between I-5 and Hwy 99. | 7,694 |
| Rockwood Employer Shuttle | Off-peak shuttle service to MAX Rockwood station. | 3,068 |
| TriMet service | Bus service in low-income communities and employment areas. | 1,218,695 |

**TABLE 7. Jobs Access Support Services in the Metro Region**

| Support Service | Description | Annual Rides |
|---|---|---|
| Ride Connection Travel Training (RideWise, Worklink). | Train new riders on the basic skills needed to ride public transportation (e.g. fares, reading signage, trip planning, etc.). | No direct rides provided |
| Steps to Success Northeast Shuttle | Provides a valuable link between job training facilities, transit connections, and job interviews for Steps to Success clients. | 3,501 |
| Portland Community College (PCC) - JobLink | Designed to help people retain employment by assisting them with transportation, childcare, and personal issues. Funds are used to support dispatch services and emergency childcare. | 2,000 |
| Clackamas County - Travel Training | Train new riders on the basic skills needed to ride public transportation (e.g. fares, reading signage, trip planning, etc.). | No direct rides provided |
| Non Commute Vouchers | Taxi Vouchers | 500 (estimate) |

**TABLE 8. Jobs Access Transportation Services Outside the Metro Region**

| Service | Description | Annual Rides |
|---|---|---|
| Ride Connection Washington County Service | Provide commute and non-commute demand-responsive service for low-income residents in Washington County. | 11,527 |
| South Metro Area Rapid Transit (SMART) Reverse Commute Service | Increased bus service between Wilsonville and the Barbur Transit Center in Portland. New service between Canby and Wilsonville. | 134,026 |
| South Clackamas Transit District (SCTD) – Enhanced rural service | Fixed route service between Canby and Molalla. | 13,071 |
| Sandy Area Metro (SAM) – Enhanced rural service | Service between Sandy and Eagle Creek. | 9,935 |

### *Intercity Transit Providers*

Amtrak operates the *Amtrak Cascades* through Oregon. With more than 600,000 riders in 2005, the Amtrak Cascades is the seventh most heavily traveled service in the United States and is often viewed as a model partnership among two states, Amtrak, freight railroads and local governments. It conducts two daily roundtrips from Eugene to Portland and four daily roundtrips from Portland to Seattle. The Portland connections are at the South Metro station in Oregon City and at Union Station downtown.

Greyhound operates service across the state of Oregon. In the Metro region this service includes twice daily intercity connections from McMinnville to Portland. This route makes stops in Newberg and Tigard in route to the Portland Greyhound station.

### *Transit Accessibility*

Ridership is affected by accessibility to transit services. Ninety percent of the region's population lives within one-half mile of a bus or light rail platform. Walking is the predominant mode by which users access transit. Currently, only 69 percent of transit stops have connecting sidewalks. TriMet and Metro recently completed an inventory of the region sidewalk inventory aimed at identifying gaps and discontinuous segments of sidewalk on major arterials. The study is used to locate gaps in pedestrian access within one-quarter mile of existing and proposed frequent service routes.

Bicycle infrastructure also affects transit ridership, but to a lesser extent than pedestrian access. All TriMet operated buses and trains are equipped with bike racks. Most stations are similarly equipped with bike racks and lockers.

Park-and-ride lots account for the second highest share of a rider's access to transit. They provide access outside of downtown Portland to transit in locations not well served by bus routes. The goal is to provide and extend transit access to lower density neighborhoods not directly efficiently served by transit. Lots are either owned by TriMet or operated in a shared capacity arrangement through churches, movie theatres, and retail establishments. TriMet owns twenty-one lots, sixteen of which are located on MAX lines. Dedicated lots account for more than eighty percent of the total park-and-ride capacity. Table 9 shows the average daily usage for 2005 and 2006 for TriMet owned lots and the overall total for shared use lots. Overall, daily park-and-ride lot usage dropped one percent from 2005 to 2006; however significant increases in usage occurred at several locations.

## TABLE 9. Park-and-Ride Counts

| PARK & RIDE USAGE COUNTS | 2005 | | | 2006 | | | % Change |
|---|---|---|---|---|---|---|---|
| | Capacity | Daily Use | % Use | Capacity | Daily Use | % Use | |
| **TriMet Owned Park & Ride Lots** | | | | | | | |
| **Westside MAX** | | | | | | | |
| Hatfield Government Center | 250 | 200 | 80% | 250 | 240 | 96% | 20% |
| Fairplex/Hillsboro Airport | 396 | 157 | 40% | 396 | 153 | 39% | -3% |
| Orenco/231st | 180 | 125 | 69% | 180 | 141 | 78% | 13% |
| Quatama/NW 205th | 310 | 310 | 100% | 310 | 265 | 85% | -15% |
| Willow Creek/185th TC | 595 | 250 | 42% | 595 | 200 | 34% | -20% |
| Elmonica/SW 170th | 435 | 300 | 69% | 435 | 344 | 79% | 15% |
| Beaverton Creek | 417 | 180 | 43% | 417 | 189 | 45% | 5% |
| Milikan Way | 400 | 400 | 100% | 400 | 400 | 100% | 0% |
| Sunset Transit Center | 630 | 630 | 100% | 630 | 630 | 100% | 0% |
| **Westside Bus** | | | | | | | |
| Barbur Boulevard** | 368 | 368 | 100% | 368 | 357 | 97% | -3% |
| Tigard | 220 | 100 | 45% | 220 | 93 | 42% | -7% |
| Progress (Washington Square)** | 122 | 70 | 57% | 122 | 74 | 61% | 6% |
| Tualatin** | 466 | 426 | 91% | 466 | 423 | 91% | -1% |
| I-5 South/Mohawk | 232 | 85 | 37% | 232 | 70 | 30% | -18% |
| **Eastside MAX** | | | | | | | |
| Cleveland Avenue | 392 | 319 | 81% | 392 | 370 | 94% | 16% |
| Gresham Garage | 540 | 150 | 28% | 540 | 140 | 26% | -7% |
| Gresham City Hall | 417 | 417 | 100% | 417 | 417 | 100% | 0% |
| 181st Avenue/Rockwood | 247 | 40 | 16% | 247 | 49 | 20% | 23% |
| 122nd/Menlo Park | 612 | 400 | 65% | 612 | 271 | 44% | -32% |
| Gateway**. | 474 | 474 | 100% | 690 | 690 | 100% | 46% |
| Parkrose** | 193 | 193 | 100% | 193 | 193 | 100% | 0% |
| **TOTAL TriMet Owned Lots** | **8,081** | **5,779** | **72%** | **8112** | **5709** | **70%** | -1% |
| **Interstate MAX (defined as shared use - 2 total)** | | | | | | | |
| Expo Center | 300 | 50 | 17% | 300 | 75 | 25% | 50% |
| Delta Park | 300 | 160 | 53% | 300 | 150 | 50% | -6% |
| Interstate Totals | **600** | **210** | **35%** | **600** | **225** | **38%** | 7% |
| Other Typical Shared Use Lots (34 total) | | | | | | | |
| Sum of ALL shared lots | 1,311 | 460 | 35% | 1,217 | 444 | 36% | -3% |
| **GRAND TOTAL** | **9,992** | **6,449** | **65%** | **9,929** | **6378** | **64%** | **-1%** |

TriMet 2006

**Partial/Full Land under ODOT ownership.

Quick Drop is offered at many centrally located MAX stations and transit centers, providing curbside locations where transit riders can be met or dropped off. These facilities are intended to make it easier for carpoolers to coordinate trip making. Quick Drop locations were added to the regional transportation system in conjunction with the opening of the Airport MAX Red Line to afford easier access to stations for passengers with luggage. As MAX stations and transit centers are redeveloped, TriMet continues to incorporate Quick Drop facilities.

### *Transit Equity: Serving Seniors, People with Disabilities and Economically Disadvantaged Residents of the Region*

TriMet seeks to ensure that the allocation of service and amenities is fair and equitable throughout the system. Transit equity is a key consideration in decisions regarding:

- Transit service to low-income neighborhoods and communities of color
- Placement of bus stops and shelters
- Allocation of new low-floor buses
- Service for non-English speaking populations[20]

Traditional service development and street amenity placement was focused on achieving the highest ridership potential with little emphasis on income, race and neighborhood. In 2003, TriMet adopted new evaluation criteria for expanding Frequent Service. The core factor is still ridership, but now the density of transit dependent populations is also a factor. The transit dependency factor is calculated by examining areas with high proportions of low-income residents, seniors and people with disabilities.

To analyze how transit service lines match up with equity goals, TriMet used 2000 Census information to identify where minority and low-income populations are located in the District. TriMet service was then evaluated in relation to serving these neighborhoods. Most Frequent Service lines are in North, Northeast, and Southeast Portland, providing high quality service to transit dependent and low-income populations. These routes are also designed for multiple trip purposes, locations and times, including commuting, medical appointments, special events and school. TriMet also provides numerous information materials in multiple languages. Guidebooks are available in six languages besides English. Rider alerts are usually printed in English and Spanish, TriMet's website houses basic information in six different languages and the 503-238-RIDE is available in multiple languages. Ticket machines have a Spanish option and MAX audio messages are played in both Spanish and English.

According to the Elderly and Disabled Land Use Study conducted by TriMet, "Seniors as a percentage of population is increasing, especially at the edges of the Portland region.[21]" Ten percent of the region's population was 65 and over in 2000. Table 10 summarizes the elderly, disabled, and economically disadvantaged populations across the Metro region.

[20] TriMet. "2007 Transportation Improvement Program." p. 54.
[21] Tri-Met Elderly and Disabled Land Use Study, Page 1.

**TABLE 10. Summary of Metro Region Elderly, Disabled & Economically Disadvantaged Population**

| | Tri-County | Tri-County Outside Metro UGB | Tri-County Outside TriMet District |
|---|---|---|---|
| **Total Population** | 1,444,219 | 151,398 | 135,398 |
| **Aged 65 and Over** | 150,386 | 15,772 | 14,188 |
| **Economically Disadvantaged** | 136,255 | ---- | ---- |
| **Disabled** | 225,345 | 30,411 | 24,132 |

Census 2000

Elderly adults tend to have different travel patterns than adults of other age groups, because they are less likely to drive themselves and more likely to ride in cars as passengers, walk, and use transit.[22] Lower-income elderly adults take fewer trips than higher-income elderly adults, perhaps due to limited access to travel options. It is important to plan for the increase in elderly population, particularly in access to transit and pedestrian facilities.

Disabled, as defined by the US Census Bureau, refers to individuals that possess a long-lasting physical, emotional, or mental condition. Disabled persons also have different transit needs, requiring more demand-response LIFT service. Economically disadvantaged is referring to the number of individuals at or below the federal poverty level. Such persons have different service needs like direct access to industrial areas and employment centers and are often dependent on transit. Commute patterns differ for economically disadvantaged individuals as some work evenings and nights during non-peak hours. The travel demands of the disabled and economically disadvantaged also need to be important considerations in developing a regional transit system.

### *Security*

TriMet has instituted new security procedures since 2001 including more transit police and security personnel patrols, random sweeps on vehicles and facilities, fare inspectors, security cameras, and GPS tracking of buses and trains. TriMet also coordinates emergency response with the police department, fire department, and ambulance services.[23] TriMet works closely with the Urban Area Working Group, and coordinates the Regional Transit Security Working Group and the Regional Transit Security Strategy. TriMet has used its Urban Area Security Initiative funds to replace obsolete CCTV recorders, install yard security gates, provide increased staff training, and create a communications system plan.

[22] Tri-Met Elderly and Disabled Land Use Study, Page 8.
[23] See http://www.trimet.org/howtoride/security.htm.

### *Access Safety*

TriMet's mission is to assure people increased mobility in our growing, compact urban regional metropolitan area. These transit services must be safe, reliable, efficient and cost-effective. TriMet's Strategic Direction and System Safety Policy establishes safety as paramount and a core value in all TriMet operations, including planning design, construction, testing and maintenance of the transit system. Similarly, all TriMet employees serve as "eyes and ears" for security awareness.

There are various dimensions to providing a safe transit environment:

- Safety from harm in the everyday use of the system, including on-street access and egress and including all mobile members of our community.
- Safety from crime or disruptive conduct within the transit environment.
- Safety in the strategic sense – redefined with terrorist awareness – from catastrophic acts of violence.

Creation of a safe transit-riding environment needs to apply to all members of the community who might use transit at all hours of the day – including children and seniors and those who might be mobility disabled.

The safe operation of the transit system is every employee's responsibility. Employee awareness and training is supplemented with state-of-the-art systems to prevent incidents and to minimize harm when they do occur. TriMet's Operations Command Center, linked to the region's 9-1-1 system is at the center of the crime and emergency preparedness efforts. These policies and programs are vested in TriMet's Safety and Security Director.

*Safe Facilities and Systems Design*
The procurement of new buses and light rail vehicles and the construction of facilities include safety requirements in both design and performance specifications, which are verified in design reviews and testing. Safety hazards are anticipated with the development of specifications and designs. Equipment and facilities are examined and tested before acceptance. TriMet facilities and systems are based on formally adopted Design Criteria to assure consistent application of standards. These Design Criteria are placed in the hands of contractors and vendors as projects and procurements are developed.

An example of these safety features, developed over time, are the various warning devices at light rail stations that assert attention by sight and sounds and in some instances, force your attention to the direction of a potential train. Special consideration, for example is also given to light rail operations, for example in the West Hills tunnel – with staff well versed in emergency evacuation procedures.

*Compliance with the Americans with Disabilities Act*
TriMet is vigilant in address accessibility needs of all population groups including those with mobility devices or those who may be sight impaired. The level of detail in making facilities accessible is best exemplified at light rail stations, but applies as well to bus

stops and other facilities. The great challenge in this regard is safe access beyond the bounds of the transit facilities, as persons cross busy streets or navigate streets without sidewalks or curb ramps.

Partnerships are required to identify, design, fund and correct pedestrian hazards. TriMet has worked with ODOT, the City of Portland and other road-jurisdictions to improve crosswalks, install medians and fill in sidewalk gaps to facilitate safe transit access. TriMet, Metro and ODOT have studied the condition of the pedestrian infrastructure and prepared a framework for setting priorities for improvements. More needs to be done in this regard.

*Safety from Criminal Activities*
Real or perceived fear from crime around transit facilities is a major concern, especially at night or at isolated locations. TriMet works with the local communities to address this in the following ways:

- Since 1989 TriMet has contracted with area police departments to create a dedicated transit police unit that patrols TriMet facilities and responds to incidents. They also take proactive steps to reduce crime – with stakeouts and undercover presence.
- TriMet also contracts with Wackenhut Security to provide a visible, but lighter security presence, including crowd management at major events. Rider Advocates are citizen volunteers who ride the system in North/Northeast Portland to lend an additional visible security presence with a focus on working with at-risk youth.
- Clean, well-lighted bus and light rail stops are also important. TriMet works with jurisdictions or electric utilities to provide indirect lighting where practical. Many bus shelters are lighted (or have lighted advertising panels). TriMet is exploring the use of bus shelter solar light units to illuminate stops where power connections are not immediately available.
- TriMet works to eliminate vandalism as soon as possible in order to reduce further destructive activities and treats to individual safety.

*Safety from Major Threats*
Events of recent years have demonstrated the vulnerability of society to harm in various ways. This vulnerability extends to crowded transit systems. TriMet has worked closely the Federal Homeland Security Department to put in place measures that have the greatest promise of deterring acts of mass violence. Some examples of how this has been accomplished include:

- TriMet personnel have been trained to be alert for unusual circumstances or packages. This raised awareness has also been communicated to the public through on-board information and posters.
- TriMet security personnel noted above are trained to respond to extreme events and incident training exercises are periodically held.
- Most TriMet buses and light rail vehicles have recording closed circuit television cameras. Many light rail stations are equipped with security cameras, linked real-time to the control center.

- All TriMet vehicles are radio equipped and have locator devises. Incidents are picked up and addressed though a state-of-the-art control center.
- The design of facilities has been judiciously modified – including the redesign and placement of trashcans and bike lockers around light rail stations.
- TriMet has purchased two bomb-sniffing dogs that are use with transit police to monitor activities on the system.
- Possible Sensitive Security Information is screened and shared on a "need to know basis".
- TriMet maintains a Security and Emergency Preparedness Plan as required by the Federal Transit Administration and the U.S. Department of Homeland Security.

## VI. POLICY ASSESSMENT

This section provides a list of key findings from the trends and research and transit system profile. Potential RTP policy implications as a result of the findings are also provided.

| Key Finding | RTP Implication |
|---|---|
| 1. Increasing emphasis on accessibility and service coordination.<br>a. Increased growth in elderly populations and increased demand for LIFT/paratransit service.<br>b. Multiple benefits can be achieved by coordinating human service transportation. | • Consider regional policy emphasizing the coordination of services for the elderly and disabled with existing fixed route services where appropriate.<br>• Encourage regional transit providers to work with the Regional Travel Options program to market existing fixed route services and provide information to employers, TMAs and elderly and disabled populations.<br>• Encourage expansion of voluntary non-profit service providers like Ride Connection, Inc. as well as private providers to accommodate growth of demand-response service. |
| 2. Investing in transit, both capital and operating, provide economic benefits. | • Acknowledge the economic benefits of transit facilities in the RTP to facilitate increased transit investment. |
| 3. Pedestrian accessibility to transit stops is a growing concern. Approximately, 90 percent of Metro residents live within ½ mile of a bus stop, but only 69 percent of stops have adequate sidewalks. | • Establish regional policy for addressing sidewalk gaps near transit stops at the local and regional level. |
| 4. Emerging focus of managing the existing system. | • Emphasize investment in the total transit system, reinforcing TriMet's 2007 TIP, focusing on addressing |

| Key Finding | RTP Implication |
|---|---|
| | sidewalk connectivity, traveler information, and bus shelters and other amenities. |
| 5. Growing need to better address suburban-to-suburban travel options to respond to increasing growth in population and employment centers in these areas of the region.<br>a. Emergence of commuter rail to serve suburban-to-suburban travel needs.<br>b. Increased growth of local transit service providers, like SMART, SAM and others. | • Consider policy to emphasize transit service planning and expansion to better address suburban-to-suburban travel patterns.<br>• Consider the role of local service providers like SMART to address transit needs of suburban communities and implications for TriMet's role in regional transit system from a planning and operational perspective.<br>• Expand existing RTP policy to continue to explore future role of commuter rail options. |
| 6. Current policies do not specifically address the service needs of low-income riders, and little ridership information is available about this traditionally transit-dependent segment of the region's population. | • Expand Special Needs Public Transportation policy to include transit dependent populations and low-income individuals.<br>• Collect survey information and data about low-income residents who cannot afford to use transit.<br>• Consider flexing regional funds to support a program to subsidize transit passes for low-income riders. |
| 7. Coordination among the various transit service providers is critical to providing an integrated and efficient transportation system. | • Consider regional policy for increased coordination between local and regional transit service providers. |
| 8. Declining revenues available for transportation projects and increasing competition of LIFT service with fixed-route service for limited operating revenues need to be addressed in a comprehensive and coordinated fashion. | • Identify new financing approaches to address regional and local transit needs.<br>• Consider different service provision models to more cost-effectively meet local and regional transit needs and support the 2040 Growth Concept. |

## VII. CONCLUSION

As a major component of a balanced multi-modal transportation system, transit is vital to serve current and future travel needs as the region grows. Previous RTP's established a basic policy framework to guide investments in the regional public transportation system. Recent trends and research and an examination of the system profile provide a basis to begin to identify areas for refinements to these policies during the RTP update. In particular, refinements to the regional public transportation system policies should address human service coordination issues and the needs of low-income residents in the region, in addition to addressing issues raised by the growing trend of suburban-to-suburban travel patterns and the need to emphasize the total transit system.

Finally, transit service in the region is funded from a variety of sources. Large projects, like construction of MAX Light Rail, are funded through a combination of local and federal dollars. Operating expenses are paid for from several sources, primarily fares and a tax on payrolls in the case of TriMet. Increasingly, transit service providers have been faced with difficult decisions because of the economic conditions over the past few years. For example, jobs in the Metro region decreased by approximately 53,000 (6.5 percent) between January 2001 and January 2004. This loss of jobs has a direct impact on TriMet's primary source of operating revenue, a tax on gross payrolls. At the same time, LIFT service provided by TriMet continues to be expanded to respond to the growth in seniors and people with disabilities who cannot use fixed route service. These issues also need to be addressed in a comprehensive and coordinated manner to most effectively serve the 2040 Growth Concept and future growth in communities throughout the region.