M E M O R A N D U M

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METRO

Date: September 18, 1997

To: Metro Council

From: Andrew Cotugno, Transportation Director

Subject: Summary of Recommendations Related to Chapter 2 (Transportation) of the Regional Framework Plan (divided into "Discussion Items" and "Consent Items")

Attachment "A" to this memo is the proposed Chapter 2 (Transportation) of the Regional Framework Plan as approved by JPACT and MPAC on September 17 for the upcoming Metro Council public hearings. The document is presented in engrossed format (strike and underline) and incorporates all of the proposed changes reflected in Attachment "B."

Attachment "B" presents a summary of issues and public comments identified to date related to Chapter 2 (Transportation) of the Regional Framework Plan. For each comment, included is a discussion of the issue, a staff recommendation , a TPAC and a JPACT/MPAC recommendation. Attachment "B" is divided into two sections:

- Discussion Items (Key issues that warranted further MPAC and JPACT discussion at their joint meeting on September 17.)
- Consent Items (Other issues that were approved collectively "by consent." These items are primarily minor edits to Chapter 2 and clarify or expand existing Chapter 2 language.)

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CC: JPACT
MPAC
TPAC
Mike Burton, Executive Officer

Chapter 2 Transportation

Overview

In 1992, the region's voters approved a charter for Metro that formally gave responsibility for regional land use planning to the agency, and requires adoption of a Regional Framework Plan that integrates land use, transportation and other regional planning mandates. The combined policies of this framework plan establish a new framework for planning in the region by linking land use and transportation plans. Fundamental to this plan is a transportation system that integrates goods and people movement with the surrounding land uses.

This chapter of the Regional Framework Plan presents the overall policy framework for the specific transportation goals, objectives and actions contained in the Regional Transportation Plan (RTP). It also sets a direction for future transportation planning and decision-making by the Metro Council and the implementing agencies, counties and cities.

Policy highlights of this chapter include:

- Ensuring efficient access to jobs, housing, cultural and recreational opportunities, shopping in and throughout the region and providing transportation facilities that support a balance of jobs and housing.
- Reducing reliance on any single mode of travel and increasing the use of alternative modes, such as transit, bicycling and walking.
- Integrating land use, automobile, bicycle, pedestrian, freight and public transportation needs in regional and local street designs.
- Providing efficient transportation systems that accommodate motor vehicles, public transportation, pedestrian transportation, bicycle transportation and freight movement.
- Reducing vehicle miles of travel per capita~~automobile trips per person~~ and related parking spaces.
- Providing transportation demand management and system management strategies.
- Minimizing impact of urban travel on rural land through use of green corridors.
- Protecting water and air quality and reducing energy consumption.

Background

A number of federal, state and regional mandates form the basis for the policies contained in this chapter of the Regional Framework Plan.

Federal mandates

At the federal level, the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) emphasizes expanding public participation in the transportation planning process and increasing cooperation among the jurisdictions that own and operate the regional transportation system. These partners include the region's cities and counties, Metro, Oregon Department of Transportation (ODOT), Oregon Department of Environmental Quality (DEQ), Port of Portland, Tri-Met, Washington Regional Transportation Council (RTC), Washington Department of Transportation (Wash-DOT), Southwest Washington Air Pollution Control Authority (SWWAPCA) and other Clark County governments.

As the federally designated Metropolitan Planning Organization (MPO) for the region, Metro must coordinate metropolitan transportation planning efforts in partnership with these multiple jurisdictions and citizens to help develop statewide and regional transportation plans. These plans must forecast future growth, identify needed transportation investments to meet this growth and ensure the maintenance and efficient operation of existing transportation systems over a 20-year period. The Oregon Transportation Plan guides the transportation system statewide, and the Regional Transportation Plan (a Metro functional plan) is the transportation plan for this region.

ISTEA also requires the establishment of a National Highway System to provide an interconnected system of principal arterial routes that will serve major population centers, public transportation facilities, airports, and intermodal facilities, and serve interstate and inter-regional travel.

In addition to the Federal requirements of ISTEA, Federal 1990 Clean Air Act Amendments (CAAA) establish air quality standards for key air pollutants, including carbon monoxide, ozone and particulate matter. Areas that do not meet the standards are designated in varying degrees of nonattainment, from "marginal" to "extreme." States must submit implementation plans (SIP) showing how these areas will meet the standards and maintain compliance over a ten-year period. Areas that do not meet SIP requirements may face sanctions, including potential loss of highway funds and limits on industrial expansion.

The Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) was designated as a marginal nonattainment area for ozone and moderate nonattainment area for carbon monoxide in 1991. By the end of 1991, the area began to meet the federal ozone and carbon monoxide standards on a consistent basis. As a result, the region began to work on ten-year maintenance plans and attainment redesignation requests for both pollutants. These plans were finalized in 1996 and submitted to the U.S. Environmental Protection Agency (EPA) as revisions to the Oregon State Implementation Plan (SIP). EPA approved the maintenance plans and also redesignated the Portland-Vancouver Interstate AQMA to attainment status in 1997.

The maintenance plans were developed on the basis of Metro's long-range population and employment forecasts. Control strategies, including ~~Oregon SIP required the region to implement specific~~ transportation control measures (TCMs) were developed to reduce automobile emissions to show standards maintenance through the ten-year plan period ~~in the region~~. These measures include projects to provide facilities for alternative modes, demand management programs to encourage use of alternative modes and implementation of the 2040 land use framework to produce more transportation efficient land use patterns. The goal of these measures is to manage travel demand and improve traffic flow in order to reduce the number of vehicle trips made and the number of vehicle miles traveled. The SIP recognizes that land use patterns that shorten trips and increase opportunities for transit, bicycling and walking also help reduce emissions.

~~Currently, the status of the Portland-Vancouver AQMA is under review for attainment of federal air quality standards. The AQMA is anticipated to be found in compliance with requirements to meet and maintain federal air quality standards for carbon monoxide and ozone for a ten-year time period. However, it is likely that because of expected future growth, air quality regulations may stipulate certain measures remain in place or be enhanced in order for the region to remain in attainment as additional growth occurs.~~ The Oregon Department of Environmental Quality monitors three locations for the ozone standard and four locations for the carbon monoxide standard for the Portland-Vancouver AQMA, as shown in Table 1, below.

Table 1. Oregon Department of Environmental Quality Air Quality Monitoring Locations

Ozone Monitoring Locations	Carbon Monoxide Monitoring Locations
• Milwaukie High School • Sauvie Island • Carus (approximately 5 miles south of Oregon City on Highway 213)	• 4th/Alder Street - downtown Portland • Postal Building - downtown Portland • SE 82nd Avenue/Division Street - Portland

In 1996, the AQMA area exceeded the summer ozone standard twice at one monitoring location (Milwaukie High School). A fourth~~third~~ exceedance, at one monitoring location over a three-year period, would violate federal air quality standards and trigger the ~~region's transportation control measures as defined in the~~ SIP contingency plan for ozone. The contingency plan provides for a rule development process to reduce emissions from industry and other sources. Any TCMs identified as control strategies are to be included inn Metro's Transportation Improvement Program and the Regional Transportation Plan within twelve months after the violation is recorded.

Additional federal requirements include the 1990 Americans with Disabilities Act (ADA) which mandates that transportation plans address equal access and opportunity for disabled people. An ADA transportation plan has been developed by Tri-Met. In addition, state and local jurisdictions must design and construct pedestrian facilities in compliance with ADA requirements.

State mandates

The Oregon Transportation Planning Rule (TPR) focuses on the link between land use and transportation and intends to ensure that planned transportation systems support land use and travel patterns that achieve the state goal of compact, highly livable urban areas. The TPR contains requirements designed to reduce reliance on the automobile and requires consideration of land-use policies when developing transportation plans. Local jurisdictions are required to revise development standards to promote public transportation, pedestrian and bicycle travel, orient new buildings toward major transit stops and design local streets that require less right-of-way width and improve pedestrian circulation. The TPR also requires that local transportation plans include policies that

promote completion of local street networks. The rule also requires that local and regional transportation system plans target the following goals:

- a 10 percent reduction in vehicle miles of travel per capita during the next 20 years and 20 percent during the next 30 years
- less reliance on the automobile and a reduction in the number of people driving alone
- a 10 percent reduction in the number of parking spaces per capita during the next 20 years
- a stronger connection between land use and transportation planning

Local and regional transportation system plans must also examine possible land-use solutions to transportation problems and identify multi-modal, system management and demand management strategies to address transportation needs.

Regional Mandates

With adoption of the Metro Charter by voters in the region, Metro was directed to complete a Future Vision. The Future Vision statement that resulted from this mandate included many references as to the importance of transportation. These references include:

> "Address the further diversification of our economy, the creation of family-wage jobs and the development of accessible employment centers throughout...the region in the Regional Framework Plan elements for transportation, rural lands, urban design, housing and water resources."
>
> "Incorporate specific expectations for a basic standard of living for all citizens in Regional Framework Plan elements concerned with urban design, housing, transportation, and parks and open space."
>
> "Identify and address public and personal safety issues in the Regional Framework Plan elements dealing with transportation, urban design and bi-state coordination."

Other regional statements of existing transportation policy are included in the Regional Urban Growth Goals and Objectives (RUGGOs), the Urban Growth Management Functional Plan (see Appendix A) and the Regional Transportation Plan (RTP). The Regional Urban Growth Goals and Objectives (RUGGOs) were adopted in 1991 in response to direction by the Oregon Legislature to develop regional land use goals and objectives. The RUGGOs establish a process for coordinating planning in the metropolitan area in an effort to preserve regional livability. The RUGGOs also provide a policy framework for guiding Metro's regional planning program, including development of functional plans and management of the region's urban growth boundary.

Existing RUGGOs policies related to transportation include Objective 14 (Air Quality) and Objective 19 (Transportation). Transportation policies contained in this chapter of the Regional Framework Plan integrate existing~~these~~ RUGGOs policies and ~~with new~~ Chapter 1 policies developed as part of the current Regional Transportation Plan update. In addition, new policies were created for the Regional Framework plan that address mandates in ISTEA, ADA, CAAA, the Oregon Transportation Planning Rule and the Oregon Transportation Plan.

Likewise, t~~T~~he Regional Transportation Plan ~~update is driven by~~ is being updated to respond to the same federal and state requirements ~~contained in ISTEA, ADA, CAAA, the Oregon Transportation Planning Rule~~ and ~~the need~~ to define a balanced, multi-modal transportation system that supports the Region 2040 Growth Concept. New Regional Transportation Plan policies (Chapter 1) were approved by the Metro Council in July 1996 and reflect extensive public comment. These new policies will be used to direct and define ~~a 20-year plan of~~ specific improvements to the regional transportation system for the next 20 years.~~, and will result in an updated Regional Transportation Plan that will serve as the transportation element of the Regional Framework Plan.~~ The plan update is expected to be completed in March 1998~~December 1997~~. The analyses from this update may result in revisions to this chapter.

Regarding the relationship of Regional Transportation Plan policies to Regional Framework Plan policies, the Regional Framework Plan establishes policies for Metro. Separate functional plans will clearly identify the role that local governments will play in implementing this plan.

To ensure consistency between the two plans, the policy statements in the updated Regional Transportation Plan will be identical to the policy statements in this chapter of the Regional Framework Plan. However, the Regional Framework Plan will not include the same level of detail as the Regional Transportation Plan, where policy statements will be accompanied by objectives and performance measures that will guide implementation of individual policies. The Regional Framework Plan will not include objectives and performance measures.

This chapter of the Regional Framework Plan will be implemented through the Regional Transportation Plan, a Metro functional plan, once the current update is complete. In the interim, Title 2 and Title 6 of the Urban Growth Management Functional Plan will be amended at the time the Regional Framework Plan is adopted to clearly identify the role

that local governments will play in implementing transportation policies reflected in this chapter.

Analysis

Metro and its regional partners initiated the Region 2040 planning process to better evaluate how different growth management strategies could accommodate expected growth in this region and to analyze the possible consequences of such policies (see Chapter 1). In undertaking the Region 2040 process, the region has shown a strong commitment to developing a regional plan that is based on more efficient use of land and a balanced, multi-modal transportation system. The adopted 2040 Growth Concept resulted from this process and integrates transportation, land use, water and open space elements to reinforce the region's growth management goals. While the 2040 Growth Concept is primarily a land use framework, the success of the concept, in large part, hinges on regional transportation policy. The following section includes general descriptions of the 2040 Growth Concept land-use components and associated transportation elements as defined during the Region 2040 process. In general, each of the land use components will be served with a multi-modal transportation system tailored to its specific needs. The land use components are ordered according to their relative significance in the region.

The central city, regional centers, industrial areas and intermodal facilities are key design types of the 2040 Growth Concept. Implementation of the overall growth concept is largely dependent on the success of these primary components. For this reason, these components are the primary focus of transportation implementation policies and infrastructure investments defined in the 1996 Regional Transportation Plan.

Central city and regional centers

Portland's central city already forms the hub of the regional economy. Regional centers in suburban locations such as Gresham, Beaverton and Hillsboro are envisioned in the 2040 Growth Concept as complementary centers of regional economic activity. These areas have the region's highest development densities, the most diverse mix of land uses and the greatest concentration of commerce, offices and cultural amenities. They are the most accessible areas in the region by both auto and public transportation, and have very pedestrian-oriented streets.

In the 2040 Growth Concept, the central city is highly accessible by a high-quality public transportation system, multi-modal street network and a regional freeway system of through-routes. Light-rail lines radiate from the central city, connecting to each regional center. The street system within the central city is designed to encourage public transportation, bicycle and pedestrian travel, but also accommodate auto and freight movement. Of special importance are the bridges that connect the east and west sides of the central city and serve as critical links in the regional system.

Regional centers also feature a high-quality radial transit system serving their individual trade areas and connecting to other centers, as well as light-rail connections to the central city. In addition, a fully improved network of multi-modal streets tie regional centers to surrounding neighborhoods and nearby town centers, while regional through-routes will be designed to connect regional centers with one another and points outside the region. The street design within regional centers encourages public transportation, bicycle and pedestrian travel while also accommodating auto and freight movement.

Industrial areas and intermodal facilities

Industrial areas serve as "sanctuaries" for long-term industrial activity. These areas are primarily served by a network of major street connections to both the regional freeway system and intermodal facilities. Many industrial areas are also served by freight rail, and have good access to intermodal facilities. Freight intermodal facilities, including air and marine terminals, freight rail yards and common carrier truck terminals, are an area of regional concern. Access to these areas is centered on rail, the regional freeway system, public transportation, bikeways and key roadway connections. While industrial activities often benefit from roadway improvements largely aimed at auto travel, there are roadway needs unique to freight movement that are critical to the continued vitality of industrial areas and intermodal facilities.

Town centers, station communities, main streets and corridors

While more locally oriented than the primary components of the 2040 Growth Concept, town centers, station communities, main streets and corridors are significant centers of urban activity. Because of their density and pedestrian-oriented design, they play a key role in promoting public transportation, bicycling and walking as viable alternatives to the automobile as well as conveniently close services for surrounding neighborhoods. As such, these secondary components are an important part of the region's strategy for reducing per-capita automobile travel.

Station communities are located along light-rail corridors. They should feature a high-quality pedestrian and bicycle environment. These communities are designed around the transportation system to best benefit from the public infrastructure. While they include some local services and employment, they are mostly residential developments that are oriented toward the central city, regional centers and other areas that can be accessed by rail for most services and employment.

Town centers function as local activity areas that provide close access to a full range of local retail and service offerings within a few miles of most residents. While town centers will not compete with regional centers in scale or economic diversity, they will offer some specialty attractions of regional interest. Though the character of these centers varies greatly, each will function as strong business and civic communities excellent multi-modal arterial street access and high-quality public transportation with strong connections to regional centers and other major destinations. Main streets feature mixed-use, storefront style development that serve the same urban function as town centers, but are located in a linear pattern along a limited number of bus corridors. Main streets feature street designs that emphasize pedestrian, public transportation and bicycle travel.

Corridors will not be as intensively planned as station communities, but similarly emphasize a high-quality bicycle and pedestrian environment and convenient access to public transportation. Transportation improvements in corridors will focus on nodes of activity - often at major street intersections - where transit and pedestrian improvements are especially important. Corridors can include auto-oriented land uses between nodes of activity, but such uses are carefully planned to preserve the pedestrian orientation and scale of the overall corridor design.

Employment centers and neighborhoods

Some components of the 2040 Growth Concept are primarily of local significance, including employment centers and neighborhoods. Urban activities in these areas often impact the regional transportation system, but are best addressed through the local planning process.

Employment centers allow mixed commercial and industrial uses, including some residential development. These areas are primarily served by a network of arterial connections to both the regional freeway system and intermodal facilities. Some employment centers are also be served by freight rail. Employment centers are often

located near industrial areas, and thus may benefit from freight improvements primarily directed toward industrial areas and intermodal facilities.

In recent decades, the newest neighborhoods have become the most congested largely due to a lack of street connections. A lack of street connections discourages walking and bicycling for local trips in these areas, and forces local auto trips onto the regional multi-modal arterial network. The 2040 Growth Concept envisions master street plans in all areas to increase the number of local street connections to the regional roadway network. However, new connections must be designed to discourage through-travel on local neighborhood streets.

Urban reserves

Urban reserves, which are currently located outside the urban growth boundary (UGB), are relatively undeveloped with limited transportation facilities. Urban reserves are intended to accommodate future growth and will eventually require multi-modal access to the rest of the region. Because they may be added to the urban area during the 20-year Regional Transportation Plan (RTP) planning period, they are included in the RTP functional classification scheme. General street and public transportation planning is completed prior to urbanization, as part of the RTP process, and based on specific 2040 Growth Concept land use policies for these areas. Once urban reserves are brought within the UGB, more detailed transportation system planning at the regional and local level occurs in conjunction with detailed land use planning.

Areas outside the region's urban areas

Rural reserves are undeveloped areas located outside the UGB and have very limited transportation facilities. Roadways in these areas are intended to serve rural industry and needs, and urban travel on these routes is accommodated with designs that are sensitive to their basic rural function. Rural reserves will be protected from urbanization for the foreseeable future through state statutes and administrative rules, county land use ordinances, intergovernmental agreements and by limiting rural access to urban through-routes whenever possible. Urban-to-urban travel is generally discouraged on most rural routes, with the exception of a limited number of designated urban connector roads identified in the RTP. All other rural roads should serve rural purposes.

Neighboring cities are separated from the main urban area by rural reserves, but are connected to regional centers within the metropolitan area by limited-access green

corridor transportation routes. In addition to highway access, green corridor routes will include bicycle and public transportation service to neighboring cities. Neighboring cities will be encouraged, through intergovernmental agreements, to balance jobs and households in order to limit travel demand on these connectors. The region also has an interest in maintaining reasonable levels of through-travel on major routes that pass through neighbor cities and function as freight corridors. Growth of neighboring cities will ultimately affect through-travel and could create a need for bypass routes. Such impacts will also be addressed through coordination with county and state agencies, as well as individual neighboring cities.

The 2040 Commodity Flow Study

As part of the Region 2040 process, the region also conducted a Commodity Flow Study. The study was designed to determine how freight moves through the region, understand the linkage between the regional economy and the transportation system and assess the implications of future freight volumes on the regional transportation system. The study concluded with these key findings:

- Goods movement has historically sparked the region's economic growth. Our region's freight market can be segmented into three distinct but complementary components: goods movement that supports local consumption, goods movement that is generated by local industries and goods movement throughout the region that is tied to a successful distribution system. Each of these depends on access to an efficient transportation network.
- The existing transportation system is adequate to support current goods movement requirements, although there are specific points of congestion, particularly within rail facilities and at some highway crossings.
- Employment in the construction, manufacturing, transportation and utilities and trade sectors of the economy account for approximately one-half of the region's jobs. Traditionally well-paid, these jobs depend on the successful movement of goods on the region's transportation system. In addition, the transportation system affects the ability of the region to maintain its competitive advantage as a warehousing and distribution center. Portland outranks similarly sized cities in its role in wholesale trade.
- Truck is the predominant mode for goods movement in the region. One out of ten vehicles on roadways in the region is a truck involved in moving freight. In 1991, 60 percent of all freight tonnage moved on trucks, and an additional portion of the rail and air traffic relied on truck for pickup and delivery.
- By the year 2040, freight volume is expected to grow by two to three times to approximately 19 million twenty-foot equivalent container units, which is faster than population growth. Of this, 80 percent is expected to be due to the region's market economy or goods that simply move through the Portland area to other destinations.

- Continued emphasis on maintaining and enhancing the transportation system is necessary to continue Portland's strong freight economy. Quick transfer between ship, rail, truck and air service is increasingly a competitive strength of any freight economy.

In conclusion, the projected growth in the flow of goods in this region is an important consideration in the region's land-use and transportation planning efforts. This significant growth points to the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities and to continue maintaining and enhancing the freight transportation network. To this end, the 2040 Growth Concept identifies industrial sanctuaries for distribution and manufacturing activities as critical in terms of their significance to the regional economy. Policies contained in this element of the framework plan recognize the importance of protecting freight movement and the road, rail, air, shipping and pipeline facilities needed to facilitate this movement.

1994 Travel Behavior/Activity Survey

In 1994, Metro also conducted a travel behavior survey within the four-county boundary of Clackamas, Multnomah and Washington Counties in Oregon and Clark County, Washington. As part of this survey, approximately 6,000 households kept a diary of activities performed over a two-day period, including identification of how individuals traveled to those activities. The study was designed to focus on the relationship between an activity type and the need for travel and highlighted the importance of all activities, whether "big" or "small." Results from the study are summarized in Table 2, below.

Table 2. Summary of 1994 Metro Travel Behavior/Activity Survey Results (for all trip purposes)

	Mode Share					Vehicle Miles per Capita	Auto Ownership per Household
Land Use Type	% Auto	% Walk	% Transit	% Bike	% Other		
Areas with Good Transit/ Mixed Use In Multnomah County	58.1%	27.0%	11.5%	1.9%	1.5%	9.80	0.93
Areas With Good Transit Only In Multnomah County	74.4%	15.2%	7.9%	1.4%	1.1%	13.28	1.50
Remainder of Multnomah County	81.5%	9.7%	3.5%	1.6%	3.7%	17.34	1.74
Remainder of Region	87.3%	6.1%	1.2%	0.8%	4.6%	21.79	1.93

Areas with good transit service and a good mix of land uses showed the highest percentage of alternative mode use (41.9 percent combined). Conversely, the remainder of the region showed the highest percentage of automobile use (87.3 percent). This indicates that individuals are likely to use the automobile when no other choices exist, but may choose other alternatives when they are available. The results of this study support this region's effort to link land use and transportation planning as a means to provide a balanced, multi-modal transportation system.

Conclusions

Assessment of federal, state and regional mandates and analysis of data from the Region 2040 process produced the following conclusions:

Transportation implications

- The transportation system must serve the urban form established in the Growth Concept if the region is to be successful in managing expected growth.
- In addition to supporting implementation of the 2040 Growth Concept, policy implementation must give top priority to projects or programs that maintain or preserve existing transportation infrastructure and address safety-related deficiencies, including the safety of pedestrians and cyclists.
- Transportation investment should be a priority in key target areas, particularly the central city, regional centers, industrial areas, transit corridors and station areas.
- The density of the regional street network must be expanded to accommodate planned population and employment growth, particularly in areas where significant increases in density are planned, such as regional centers. Portions of the existing street network also warrant expansion to meet new demands. These new or expanded streets must be designed as multi-modal facilities, reflecting the variety of travel demands that accompany each land-use component.
- Higher-density, mixed-use locations should be tied to the highest quality transit and should provide~~include~~ improved pedestrian and bicycling environments.
- Improved transit, pedestrian and bicycle travel, parking limits and other transportation demand management actions ~~should~~ complement higher-density land use desig~~t~~nations and will help achieve~~if a~~ mandated 10 percent reduction in VMT per capita in the UGB by 2015 and a 20 percent reduction by 2025~~ is sought~~.
- Local governments should ~~be encouraged to~~ implement code changes that address building orientation and pedestrian access to transit, particularly in higher-density centers and corridors, consistent with requirements contained in the Oregon Transportation Planning Rule.
- Access to highway corridors that connect the region to neighboring towns must be limited to reduce~~if~~ urban development pressure on adjacent rural lands~~ is sought~~.

- Specific u~~U~~rban connector routes through rural areas outside the Metro UGB should be designated as such and designed to ensure safe, efficient travel while discouraging urban development~~to urban standards if this type of traffic is to be accommodated~~. Other rural routes should be limited to serve only rural needs ~~if~~ to reduce urban development pressure~~ is not sought~~.
- Parking limitations, pedestrian amenities and compact, more densely developed urban areas should be implemented to reduce ~~employed if reductions in~~ vehicle miles traveled and to increase~~ increases in~~ transit ridership~~ are sought~~.
- Local street connectivity must be improved for more direct local access to reduce~~, if reductions in~~ excess demand on regional routes and to promote~~promotion of~~ alternative modes~~ is sought~~.
- A balance between jobs and housing within the market areas of regional centers can minimize travel needs for both shorter commutes and closer access to retail and other commercial services.
- The projected growth in the flow of goods in this region is an important consideration in the region's land-use and transportation planning efforts. This significant growth points to the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities and to continue maintaining and enhancing the freight transportation network.

Air quality implications

- Metro must establish minimum and maximum parking ratios consistent with air quality maintenance plans. In areas where transit is provided or other non-auto modes are convenient, less parking should be provided while allowing accessibility and mobility for all modes, including autos.
- Regional transportation investment should maintain compliance with air quality standards. Investment should support regional transit service hours increases averaging 1.5 percent annually, completion of the west-side light rail transit facility and completion of the light rail transit facility in the South/North corridor by the year 2007.
- If greater reduction of transportation-related pollutant emissions becomes necessary to assure maintenance of the ozone standard, federal transportation funding may increasingly be diverted to trip reduction programs and transit, bike and pedestrian capital projects. Accordingly, all major roadway expansion, construction or reconstruction projects~~ on arterials or major collectors should~~ must include pedestrian and bicycle facilities~~ improvements where such facilities do not currently exist~~.

Water quality implications

Impervious surfaces are hard surfaces that do not allow water to soak into the ground, and increase the amount of stormwater running off into the stormwater drainage system. The majority of total impervious surfaces is from roads, sidewalks, parking lots and driveways. Stormwater runoff from these impervious surfaces reduces the amount of

recharge of water to ground water and increases the capacity requirements of the storm water drainage system. Higher impervious surface coverage has been linked to dramatic changes in the shape of streams, water quality, water temperature and the health of the flora and fauna that live in the natural waterways. Examples of impervious surface reduction techniques include:

- consider use of open channels and swales on smaller streets and roads, as long as runoff velocities are low enough to prevent erosion;
- grade sidewalks so that storm water runs off into adjacent unpaved areas such as planting strips or landscaped private property;
- encourage the use of shared parking to reduce the size and number of parking lots;
- consider reducing commercial, industrial and multi-family use parking requirements to reduce impervious surface coverage;
- encourage shared driveways between adjacent development projects;
- follow guidelines for erosion control techniques during construction of regional streets and adjacent development projects.

Policies[1]

The following section contains the policies for regional transportation. It should be noted that implementation of these policies is through the Regional Transportation Plan, a Metro functional plan that includes both recommendations and requirements for cities and counties of the region. The RTP is now being revised and as the Metro Council considers potential changes to the existing RTP, the Regional Framework Plan may be revised.

2.1 Intergovernmental coordination

2.1.1. Coordinate among the local, regional and state jurisdictions that own and operate the region's transportation system to better provide for state and regional transportation

[1] The following policies result from integration of the air quality and transportation objectives in the adopted Regional Urban Growth Goals and Objectives (RUGGO) and policies approved by resolution by the Metro Council in July 1996 as part of the Regional Transportation Plan (RTP) update. These policies comply with and replace the air quality and transportation objectives adopted in the RUGGOs. They also comply with the 2040 Growth Concept, the federal Intermodal Surface Transportation Efficiency Act (ISTEA), Clean Air Act Amendments (CAAA) and Americans with Disabilities Act (ADA), the Oregon Transportation Planning Rule (TPR) and the Oregon Transportation Plan (OTP). These mandates are described in the Background section of this chapter. The RTP, which will be updated in early 1998~~late 1997~~, will continue to provide specific transportation information, including project identification and funding criteria

needs. These partners include the cities and counties of the region, Metro, the Oregon Department of Transportation (ODOT), the Oregon Department of Environmental Quality, the Port of Portland and Tri-Met. Metro also coordinates with RTC, C-Tran, the Washington Department of Transportation (Wash-DOT), the Southwest Washington Air Pollution Control Authority (SWWAPCA) and other Clark County Governments on bi-state issues.

2.2 Consistency between land use and transportation planning

2.2.1. Ensure the identified ~~Provide an adequate regional transportation system to support planned land uses and land uses which are consistent with the~~ function ~~,and~~ capacity and level of service of ~~planned~~ transportation facilities are consistent with regional land use and transportation goals as well as the adjacent land use patterns~~systems~~.

2.3 Public involvement

2.3.1. Provide complete information, timely public notice, full public access to key decisions and support broad-based, early and continuing involvement of the public in all aspects of the transportation planning process that is consistent with Metro's adopted regional Public Involvement Policy and Local Public Involvement Policy for transportation planning. This includes involving those traditionally under-served by the existing system, those traditionally under-represented in the transportation planning process, the general public and local, regional and state jurisdictions that own and operate the region's transportation system in all aspects of the transportation planning process.

2.3.2. Develop a detailed public involvement work plan consistent with the regional Public Involvement Policy for each transportation plan, program or project.

2.3.3. Provide opportunities for the public to supply input. Revise work scopes, plans and programs to reflect public comment, as appropriate. Create a record of public comment received and agency response regarding draft transportation plans and programs at the regional level.

2.4 System objectives~~priorities~~

In developing new transportation system infrastructure, the highest priority should be meeting the accessibility and mobility needs of the central city, ~~and~~ regional centers and industrial areas and intermodal facilities~~, and their suburban arterials when designated~~.

Such needs, associated with ensuring access to jobs, housing, cultural and recreational opportunities and shopping within and among those centers, should be assessed and met through a combination of intensifying land uses and increasing transportation system capacity so as to mitigate negative impacts on environmental quality and where and how people live, work and play. The region's system-wide policies are:

2.4.1. Implement a transportation system that serves the region's current and future travel needs and implements the 2040 Growth Concept.

2.4.2. Provide a cost-effective transportation system.

2.4.3. Protect the region's livability.

2.4.4. Protect the region's natural environment.

2.4.5. Improve the safety of the transportation system.

2.4.6. Provide for statewide, national and international connections to and from the region, consistent with the Oregon Transportation Plan.

2.4.7. Provide for the movement of people and goods through an interconnected system of air and rail systems, including passenger and freight intermodal facilities and air and water terminals.

2.5 Transportation finance

2.5.1. Implement a regional transportation system that supports the 2040 Growth Concept through the selection of complementary transportation projects and programs.

2.5.2. Emphasize the maintenance, preservation and effective use of transportation infrastructure in the selection of the RTP projects and programs.

2.5.3. Anticipate and address system deficiencies that threaten the safety of the traveling public in the implementation of the RTP.

2.5.4. Recognize financial constraints and provide public investment guidance for achieving the desired urban form.

2.6 Urban form

2.6.1. Support and maintain a compact urban form with specific strategies that address mobility and accessibility needs and use transportation investments to leverage desired land use patterns.

2.6.2. Serve n~~N~~ew development with~~should be served by~~ interconnected public streets which provide safe and convenient pedestrian, bicycle and motor vehicle access.

2.6.3. Provide s~~S~~treet, bicycle and pedestrian connections ~~should be provided~~ to transit routes within and between new and existing residential, commercial and employment areas and other activity centers.

2.6.4. Encourage development consistent with desired land use patterns that supports increased mobility and accessibility, particularly by transit, walking and bicycling.

2.7 Jobs/housing balance

2.7.1. ~~Provide transportation facilities that~~ Ssupport a balance of jobs and housing ~~as~~ to reduce the need for additional transportation facilities. Provide housing that is easily accessible to jobs and that is affordable to all members of the workforce~~well as the community identity of neighboring cities~~.

2.8 Transportation education

2.8.1. Encourage bicyclists, motorists and pedestrians to share the road safely. Expand the amount of information available about alternative modes of travel to encourage their use.

2.9 Barrier-free transportation

2.9.1. Provide transportation facilities that comply with the Americans with Disabilities Act of 1990 (ADA).

2.9.2. Continue to work with Tri-Met and local jurisdictions to iIdentify and assess structural barriers to mobility for transportation disadvantaged populations in the current and planned regional transportation system ~~and address through a comprehensive program of transportation and other actions~~.

2.9.3. Continue to work with Tri-Met and local jurisdictions to make public transportation stops and walkway approaches accessible.

2.10 Transportation balance

2.10.1. Provide a multi-modal regional transportation system that reduces reliance on any single mode of travel and increases the use of alternative modes of travel.

2.11 Street design

Regional street design policies address federal, state and regional transportation planning mandates with street design concepts intended to mix land use and transportation planning in a manner that supports individual 2040 Growth Concept land use components, reduces reliance on any single mode of travel and increases the use of alternative modes of travel. These design concepts reflect the fact that streets perform many, often conflicting functions, and that there is ~~a~~the need to reconcile conflicts among travel modes. The regional street design map (see Figure 2~~3~~.1) will work in tandem with the modal system maps shown at the end of this chapter. The region's street design policies are:

2.11.1. Provide regional street design concepts to guide local implementation of the 2040 Growth Concept.

2.11.2. Support local implementation of regional street design concepts in local transportation system plans (TSPs).

2.11.3. Manage the regional street system to achieve the access and mobility needs of each of the 2040 design types~~land use components~~.

2.11.4. Although focused on motor vehicle travel, the system is multi-modal, with street design criteria intended to limit the impact of motor vehicles on bicyclists, pedestrians, public transportation and pedestrian and transit-oriented districts.

2.11.5. To implement regional street design policies, Metro shall consider non-binding guidelines contained in "Creating Livable Streets: Street Design Guidelines for 2040" (1997) and other non-binding resources.

2.12 Motor vehicle transportation

The motor vehicle system provides access to the central city, regional centers, industrial areas and intermodal facilities, with an emphasis on mobility between these destinations. The regional motor vehicle system is shown in Figure 2~~3~~.2 at the end of this chapter. This plan recognizes the need to accommodate a variety of trip types on the regional motor vehicle system that include shopping, recreation, personal errands, commuting to work or school, commerce, freight movement and public transportation. ~~A~~lthough

focused on motor vehicle travel, the system described in this section is multi-modal, with design criteria intended to serve motor vehicle mobility needs, while reinforcing the urban form of the 2040 Growth Concept. While the motor vehicle system usually serves bicycle and pedestrian travel, the system is designed to limit impacts of motor vehicles on pedestrian and transit-oriented districts. The region's motor vehicle system policies are:

2.12.1. Provide a regional motor vehicle system of arterials and collectors that connect the central city, regional centers, industrial areas and intermodal facilities, and other regional destinations, and provide regional mobility.

2.12.2. Implement a congestion management system to identify and evaluate low cost strategies to mitigate and manage congestion in the metropolitan region.

2.13 Public transportation

The regional public transportation system is a key component in providing access to the region's most important activity centers, and for 25 years has been the centerpiece to the region's strategies for improving air quality and reducing reliance on the automobile as a principal mode of travel. Public transportation service is also prominent in Metro's 2040 Growth Concept, such that key elements of the concept, including regional centers, town centers, corridors, main streets and station communities, are strongly oriented toward existing and planned public transportation service. The regional public transportation system map is shown in Figure 23.3 at the end of this chapter. Public transportation ridership is highly dependent on pedestrian access and adjacent land use. Therefore, tThe overarching goal of the public transportation system, within the context of the 2040 Growth Concept, is to provide an appropriate level of access to regional activities for everyone residing within the Urban Growth Boundary (UGB). An important aspect of this goal is promoting public transportation amenities and connections to serve the region's major activity centers. Providing amenities that make walking to or waiting for transit safer and more pleasant (e.g., street lighting, benches, bus shelters and improved street crossings) can benefit other elements of the region's transportation system and complement the region's urban form and growth management goals. The region's public transportation policies are:

2.13.1. Develop a public transportation system that provides a primary transit level of service~~regional access~~ to ~~2040 Growth Concept primary land use components~~ (central city, regional centers~~,~~ and a primary or secondary transit level of service to industrial

areas, intermodal facilities~~)~~ and special regional destinations (such as major colleges or entertainment facilities)~~ with an appropriate level, quality and range of public transportation~~.

2.13.2. Develop a public transportation system that provides a primary transit level of service~~community access~~ to~~ the 2040 Growth Concept secondary land use components~~ (~~station~~ communities, town centers, main streets, corridors~~)~~ and special community destinations (such as local colleges or entertainment facilities)~~ with high quality service~~.

2.13.3. Develop a public transportation~~reliable, convenient and accessible~~ system that provides a~~ of~~ secondary transit level of service to~~public transportation that provides access to the 2040 Growth Concept "other urban components" (e.g.,~~ employment areas, outer neighborhoods and inner- neighborhoods).

2.13.4. Continue to develop fixed-route service and complementary paratransit services which comply with the Americans with Disabilities Act of 1990 (ADA).

2.13.5. Continue efforts to maintain transit as the safest form~~s~~ of motorized transportation in the region.

2.13.6. Expand the amount of information available about public transportation to encourage~~allow~~ more people to use the system.

2.13.7. Continue efforts to make public transportation an environmentally friendly form of motorized transportation.

2.13.8. Increase use of transit through ~~both expanding public transportation service and addressing a broad range of requirements for~~ making public transportation competitive with the private automobile.

2.14 Pedestrian transportation

Walking is the most basic form of transportation and links most other trip types. All bicycle, bus, light rail, car and truck trips being and end in a walk. By providing dedicated space for those on foot or using mobility devices, pedestrian facilities are recognized as an important incentive that promotes walking as a mode of travel. Walking for short distances is an attractive option for most people when safe and convenient pedestrian facilities are available. Combined with adequate sidewalks and curb ramps, amenities such as benches, curb extensions, marked street crossings, landscaping and wide planting strips make walking ~~an~~ safe, attractive and convenient mode of travel. This

benefits other elements of the region's transportation system and complements the region's urban form and growth management goals. For example, both bus users and motorists benefit from an improved pedestrian environment. Improved street crossings, street lighting, bus shelters, benches and wide planting strips that create a buffer for pedestrians between the curb and sidewalk are examples of pedestrian improvements that make waiting for a bus safer and more appealing. For motorists, where there are sidewalks and street crossing opportunities, a person can park a car once to access several destinations. The focus of the regional pedestrian system is identifying areas of high, or potentially high, pedestrian activity in order to target infrastructure improvements that can be made with regional funds. The regional pedestrian system map is shown in Figure 2.4 at the end of this chapter. The region's pedestrian system policies are:

2.14.1. Increase the walk mode share for short trips, including walking to public transportation within the central city, regional centers, town centers, main streets, corridors and LRT station communities and as access to regionally significant parks, open spaces and recreational facilities.

2.14.2~~1~~. Increase walking for short trips and improve access to the region's public transportation system through pedestrian improvements and changes in land use patterns, designs and densities.

2.14.3~~2~~. Make the pedestrian environment safe, convenient, attractive and accessible for all users.

2.14.4~~3~~. Provide for pedestrian access, appropriate to existing and planned land uses, street classification and public transportation, as a part of all transportation projects.

2.14.5~~4~~. Encourage motorists, bicyclists and pedestrians to share the roadway safely.

2.15 Bicycle transportation

The bicycle is an important component in the region's strategy to provide a multi-modal transportation system. The regional bicycle system map is shown in Figure 2~~3~~.5 at the end of this chapter. The 2040 growth concept focuses growth in the central city and regional centers, station communities, town centers and main streets. One way to meet the region's travel needs is to provide greater opportunity to use bicycles for shorter trips and to access regionally significant parks, open spaces and recreational facilities. The region's bicycle system policies are:

2.15.1. Provide a continuous regional network of safe and convenient bikeways integrated with other transportation modes and local bikeway systems.

2.15.2. Increase the modal share of bicycle trips.

2.15.3. Ensure that all transportation projects include bicycle facilities using established design standards appropriate to regional land use and street classifications.

2.15.4. Encourage bicyclists and motorists to share the road safely.

2.16 Freight movement

Developing and adopting the Regional Freight Network and associated system goals acknowledges that the movement of goods and services makes a significant contribution to the region's economy and wealth, and that it contributes to our quality of life. The region's relative number of jobs in transportation and wholesale trade exceeds the national average. The regional economy has historically, and continues to be closely tied to the transportation and distribution sectors. This trend is projected to increase. Freight volume is projected (by the 2040 Commodity Flow Analysis) to grow two to three times by 2040 - a rate faster than population growth. The significant growth in freight projected by the 2040 Commodity Flow Analysis indicates the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities, and to continue maintaining and enhancing the freight transportation network. The 2040 Recommended Alternative identifies industrial sanctuaries for distribution and manufacturing activities; the RTP freight network identifies the transportation infrastructure and intermodal facilities that serve these land uses and commodities flowing through the region to national and international markets. The regional freight system map is shown in Figure 23.6 at the end of this chapter. The region's freight system policies are:

2.16.1. Provide efficient, cost-effective and safe movement of freight in and through the region.

2.16.2. Maintain and enhance the region's competitive advantage in freight distribution through efficient use of a flexible, continuous, multi-modal transportation network that offers competitive choices for freight movement.

2.16.3. Protect and enhance public and private investments in the freight network.

2.16.4. Promote the safe operation of the freight system.

2.17 Parking management

The Oregon Transportation Planning Rule requires that the *Regional Transportation Plan* include methods to reduce non-residential parking spaces per capita by 10 percent over the next 20 years (by 2015). The requirement is one aspect of the rule's overall objective to reduce per-capita vehicle miles traveled (VMT), promote alternative modes and encourage pedestrian and bicycle friendly development.

The mode of travel is directly influenced by the convenience and cost of parking. As auto parking in densely developed areas becomes less convenient and more costly, alternative modes of travel (e.g., public transportation, bicycle, walk and telecommute) become relatively more attractive. In addition, as alternative modes of travel are used more for work and non-work trips, the demand for scarce parking decreases. The reduction in demand will allow the region to develop more compactly and provide the opportunity for redevelopment of existing parking into other important and higher end uses. The region's parking management policies are:

2.17.1. Reduce the demand for parking by increasing the use of alternative modes for accessing the central city, regional centers, town centers, main streets and employment areas.

2.17.2. Reduce the number of off-street parking spaces per capita.

2.17.3. Provide regional support for implementation of the voluntary parking provisions of the Portland region's Ozone Maintenance Plan.

2.17.4. Manage and optimize the efficient use of public and commercial parking in the central city, regional centers, town centers, main streets and employment centers to support the 2040 Growth Concept and related RTP goals and objectives.

2.17.5. Establish minimum and maximum parking ratios no greater than those listed in Regional Parking Ratios Table and as illustrated in the Parking Maximum Map in Title 2 of the Urban Growth Management Functional Plan. The designation of A and B zones on the Parking Maximum Map should be reviewed after the completion of the Regional Transportation Plan update and every three years thereafter.

2.18 Transportation demand management

Transportation demand management (TDM) is not one action, but rather a series of actions to promote shared ride and the use of alternative modes, especially during the

most congested times of the day. The term TDM encompasses the strategies, techniques and supporting actions that encourage non–single occupant vehicle travel (i.e., transit, walk, bike, carpool and telecommute), as well as measures to reduce per-capita vehicle miles traveled (VMT).

The primary benefit of managing travel demand is to minimize the need to expand the capacity of the region's transportation system (i.e., building new highways or adding lanes to existing highways) and make more efficient use of non–SOV modes (transit, walk, bike, carpool and telecommute) of travel. Managing travel demand will also help the region reduce overall per-capita vehicle travel, reduce air pollution and maximize energy conservation in a relatively low–cost manner. Regional TDM policies are also intended to complement local jurisdiction efforts to assist employers in implementing measures to meet the Department of Environmental Quality Employee Commute Options (ECO) rule and help the region achieve its 2040 Growth Concept land use accessibility goals. The region's transportation demand management policies are:

2.18.1. Enhance mobility and support the use of alternative transportation modes by improving regional accessibility to public transportation, carpooling, telecommuting, bicycling and walking options.

2.18.2. Promote policies and strategies that reduce travel by single occupant vehicles (SOV) in order to help the region achieve the 10 percent reduction in vehicle miles traveled (VMT) per capita ~~and 10 percent reduction in parking spaces per capita~~ as required by the Transportation Planning Rule (TPR) over the Regional Transportation Plan planning period, and that improve air quality.

2.18.3. Provide incentives for employers and developers to build/locate in the 2040 Growth Concept central city, regional centers, town centers, station communities and transit corridors to promote more compact land use.

2.18.4. Continue to coordinate efforts to promote TDM at the regional and local level.

2.18.5. Implement TDM support programs to reduce the need to travel, and to make it more convenient for people to use alternative modes for all trips throughout the region.

2.18.6. Increase public knowledge and understanding about TDM as a tool to reduce congestion, reduce air pollution, implement the 2040 Growth Concept and to help the region meet the TPR VMT per capita and parking per capita reduction targets.

2.18.7. Mode split will be used as the key regional measure for transportation effectiveness in this region. Metro shall establish an alternative mode split target (defined as non-Single Occupancy Vehicle person trips as a percentage of all person trips for all modes of transportation) for each of the 2040 Design Types identified in Table 3, below.

The alternative mode split targets shall be evaluated for each 2040 Design Type based on their ability to help the region meet the Transportation Planning Rule 10 percent VMT reduction requirement. Metro will develop additional guidance in the Regional Transportation Plan on methods to implement these regional mode split targets.

Table 3. Regional Non-SOV Mode Split Targets
Needed To Achieve State Transportation Planning Rule 10% VMT/Capita Reduction Requirement (for trips to and within each 2040 Design Type)

2040 Design Type	Non-SOV* Mode Split Target
Central City	60-70%
Regional Centers, Town Centers, Main Streets, Station Communities and Corridors	45-55%
Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods	40-45%

*Non-SOV includes shared ride, bike, walk and transit.

2.19 Transportation system management

2.19.1. Use transportation system management techniques (e.g., signal improvements, intersection channelization, access management, HOV lanes, ramp metering, incident response, and programs that smooth transit operations) to optimize performance of the region's transportation systems. Mobility will be emphasized on corridor segments between high priority land use designations. Access and livability will be emphasized within such designations. Selection of appropriate TSM techniques will be according to the functional classification of corridor segments.

2.20 Right-of-way opportunities

2.20.1. Where appropriate, plan for the preservation of ~~Preserve existing and abandoned~~ rights-of-way for future transportation projects, including future transportation corridors. ~~improvements~~.

2.21 Adequacy of transportation facilities

2.21.1. Ensure that changes to land use patterns are consistent with the identified function, capacity and level of service (see Policy 2.28.1 which defines motor vehicle level of service) of the facility.

2.22 Urban to urban travel on rural routes

2.22.1. Minimize the impact of urban travel on rural land uses. Limit access to and minimize urban development pressure on resource lands adjacent to transportation corridors that link neighboring towns to the nearest regional center by designating urban connectors between these destinations as "green corridors~~.~~", with exceptions identified in the motor vehicle system map (see Figure 2.2 at this end of this chapter).

2.23 Recreational travel and tourism

2.23.1 Provide reasonable and convenient access to regional cultural, historic or natural area sites for passive and active recreational or tourism purposes.

2.24 Natural environment

2.24.1 Place a priority on protecting the region's natural environment in all aspects of the transportation planning process.

2.24.2. Minimize the environmental impacts of system development, operations and maintenance.

2.24.3. Reduce negative impacts on parks, public open space, natural areas, wetlands and rural reserves arising from noise, visual impacts, ~~and~~ physical segmentation and volume and pollutants of stormwater runoff from transportation facilities.

2.25 Water quality

~~2.25.1. Place a priority on protecting the region's water quality in all aspects of the transportation planning process.~~

2.25.1. Protect the region's water quality by meeting applicable state and federal water quality standards and supporting local jurisdiction efforts to reduce impervious surface coverage in the development review and street design process.

2.26 Clean air

2.26.1. Protect and enhance air quality so that as growth occurs, human health and visibility of the Cascades and the Coast Range from within the region is maintained.

2.26.2. Encourage use of all modes of travel (e.g., transit, telecommuting, zero-emissions vehicles, ridesharing, bicycles and walking) that contribute to clean air.

2.26.3. Include strategies for planning and managing air quality in the regional airshed in the State Implementation Plan for the Portland-Vancouver air quality maintenance areas as required by the federal Clean Air Act Amendments.

2.26.4. Develop new regional strategies to comply with federal Clean Air Act Amendments requirements and provide capacity for future growth.

2.26.5. Work with the state to pursue close collaboration of the Oregon and Clark County Air Quality Management Areas.

2.27 Energy efficiency

2.27.1. Reduce the region's transportation-related energy consumption through increased use of transit, telecommuting, zero-emissions vehicles, ridesharing, bicycles and walking and through increasing efficiency of transportation network to diminish delay and corresponding fuel consumption.

2.28. Motor Vehicle Level Of Service

Establish acceptable motor vehicle level of service thresholds that balance the regional accessibility and mobility policies with the region's growth management objectives. Exceeding an acceptable threshold identifies a system deficiency or need. The Regional Transportation Plan shall provide specific thresholds, as appropriate, to ensure that the economic vitality and livability of any given area is protected from unacceptable levels-of-service occurring outside of normal peak periods of congestion.

One-hour of significant congestion is expected in both the a.m. peak-hour of the day and the p.m. peak-hour of the day within the Central City, Regional Centers, Main Streets and Station Communities because of the level of activity expected to occur in these areas. This level of congestion is acceptable in these 2040 Design Types because the opportunity to use alternative modes of travel is greatest in these areas. However, more than one-hour of significant congestion in either the a.m. peak-hour of the day or p.m.

peak-hour of the day is unacceptable, with the preference being that these areas remain substantially uncongested for the remainder of the day.

Less congestion will be tolerated in the less concentrated Corridors, Industrial Areas, Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods.

Acceptable levels of congestion for Regional Highway Corridors will be determined on a case-by-case basis in the Regional Transportation Plan. Regional Highway Corridors are defined as I-84, I-205, I-5, I-405, US 26, OR 217, OR 224, 99E, Marine Drive from I-5 to T-6 terminal, Going Street from I-5 to Swan Island and Airport Way from I-205 to Portland International Airport. (See Regional Highway Corridors map in Figure 2.7 at the end of this chapter.

Projects or strategies, as appropriate, may be developed and proposed to address unacceptable levels of congestion, consistent with Sections A and B, below.

A. Transportation Systems Analysis

Congestion and growth management actions shall be considered at the appropriate system planning level. System planning is defined as regional or local transportation system plans (TSPs), multi-modal corridor and sub-area studies, mode specific plans or special studies.

1. To address congestion actions, Metro shall consider:
   a. regional transportation demand management strategies
   b. regional transportation system management techniques, including Intelligent Transportation Systems (ITS)
   c. High Occupancy Vehicle (HOV) strategies
   d. transit, bicycle and pedestrian improvements to improve mode split
   e. congestion pricing

2. To address growth management actions, Metro shall consider:
   a. consistency with regional land use and mode split policies
   b. latent demand effects from other modes, routes or time of day
   c. "downstream" transportation effects resulting from a proposed action

B. Transportation Project Analysis

For Metro to add a significant capacity expansion to a regional motor vehicle facility, the following actions shall be applied, unless a defined capacity expansion (need, mode, corridor and function) is included in the Regional Transportation Plan:

1. To address level of service, Metro shall implement the following:

a. transportation system management techniques
b. corridor or site-level transportation demand management techniques
c. additional motor vehicle capacity onto parallel facilities, including the consideration of a grid pattern consistent with connectivity standards contained in Title 6 of the Urban Growth Management Functional Plan
d. transit, bicycle and pedestrian improvements to improve mode split

2. To address preservation of motor vehicle function, Metro shall implement the following:
   a. traffic calming
   b. change the motor vehicle functional classification, consistent with the Regional Transportation Plan

3. To address or preserve existing street capacity, Metro shall implement the following:
   a. transportation system management techniques (e.g. access management, signal interties, lane channelization)

4. To address regional street design policies, Metro shall consider non-binding guidelines contained in "Creating Livable Streets: Street Design Guidelines for 2040" (1997) and other non-binding resources

2.29. Transit Level Of Service

Establish transit level of service thresholds that balance the regional accessibility and mobility policies with the region's growth management objectives. Exceeding an acceptable threshold identifies a transit system deficiency or need. The Regional Transportation Plan shall define specific thresholds for each 2040 Design Type, as appropriate, to ensure that the highest quality transit service (in terms of coverage, speed and frequency) is available to the areas with the highest population and employment densities.

Within the Central City and Regional Centers, the regional public transportation system shall provide full coverage to high-quality transit service for all households and jobs within ¼-mile of that service, including routes competitive with the automobile and frequent service to its full market area.

Within Town Centers, Main Streets, Station Communities and Corridors, the regional public transportation system shall provide full coverage to high-quality transit service for all households and jobs within ¼-mile of that service, including routes competitive with the automobile.

Within Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods, the regional public transportation system shall provide an appropriate level of transit service, if densities in those Design Types exceeds 10 persons per acre.

Policy 2.30. Local Street Connectivity

Establish 10 to 16 street intersections per mile as a minimum range for local street connectivity, except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent full street connections. The number of street intersections should be greatest in the highest density mixed-use centers. Consider bicycle, pedestrian and emergency accessway connections on public easements or right-of-way when full street connections are not possible, with spacing between auto connections of at least 16 connections per mile in the highest density mixed-use centers, except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension.

Placeholder for Figure 2.1 Regional Street Design Map

Placeholder for Figure 2.2 Regional Motor Vehicle System Map

Placeholder for Figure 2.3 Regional Public Transportation System Map

Placeholder for Figure 2.4 Regional Pedestrian System Map

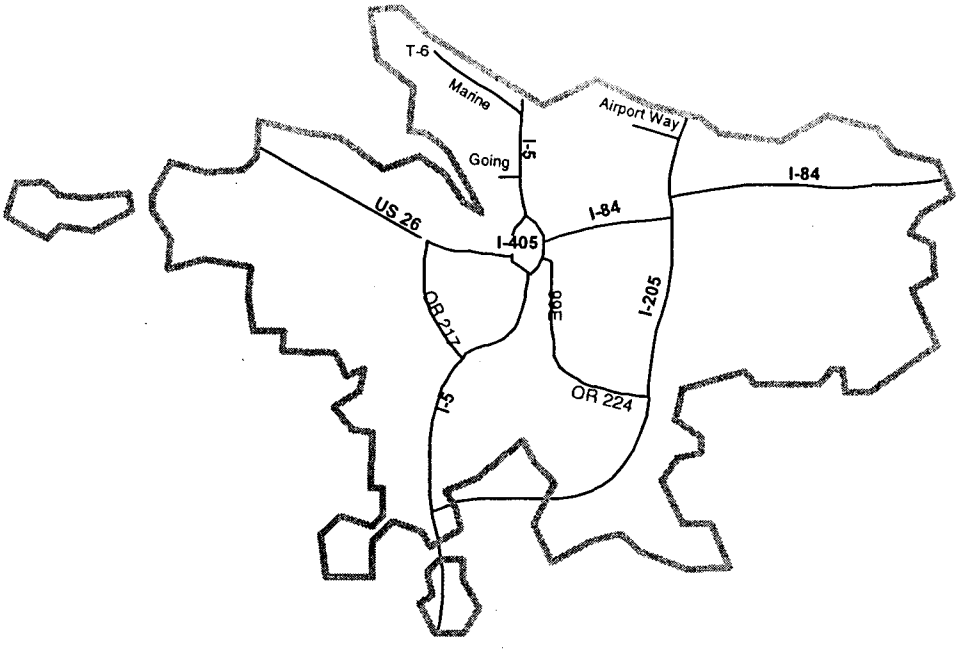
Placeholder for Figure 2.5 Regional Bicycle System Map

Placeholder for Figure 2.6 Regional Freight System Map

Placeholder for Figure 2.7 Regional Highway Corridors Map

Figure 2.7

Regional Highway Corridors



Discussion Items

1) Concern with having two policy documents (the Regional Framework Plan and the Regional Transportation Plan) for regional transportation.

   Note: Transportation policies contained in Chapter 2 of the framework plan are a synthesis of existing policies contained in RUGGO and Chapter 1 of the RTP. In addition, new policies were created for the framework plan that reflect mandates in ISTEA, ADA, the OTP and the TPR. To the extent that these additional policies were not included in Chapter 1 of the RTP, the two policy documents are inconsistent.

   Staff Recommendation: To resolve this inconsistency, staff is proposing revisions to Chapter 1 of the RTP. Revisions to Chapter 1 will accomplish the following: (1) reorganize Chapter 1 so that the chapter is less redundant without changing policy content or intent, (2) incorporate framework plan policies not reflected in Chapter 1 and (3) incorporate new policies for level of service, street design, connectivity and mode split targets as they are developed for the Regional Framework Plan. Once the revision is complete, Regional Framework Plan transportation policies will be exactly the same as goal statements in Chapter 1 of the RTP. Chapter 1 of the RTP will also include supporting objectives and performance measures that will not be included in the Regional Framework Plan. The objectives will state how a particular goal statement (policy) will be implemented and corresponding performance measures will be used to track implementation.

   TPAC Recommendation: Concur.
   MPAC/JPACT Subcommittee Recommendation: Concur.
   JPACT Recommendation: Concur.
   MPAC Recommendation: Concur.

2) Add regional motor vehicle level of service policy to Chapter 2.

   Staff Recommendation: Revise Chapter 2 to include new motor vehicle level of service policy 2.28., as follows:

   2.28. Motor Vehicle Level Of Service
   Establish acceptable motor vehicle level of service thresholds that balance the regional accessibility and mobility policies with the region's growth management objectives. Exceeding an acceptable threshold identifies a system deficiency or need. The Regional Transportation Plan shall provide specific thresholds, as appropriate, to ensure that the economic vitality and livability of any given area is protected from unacceptable levels-of-service occurring outside of normal peak periods of congestion.

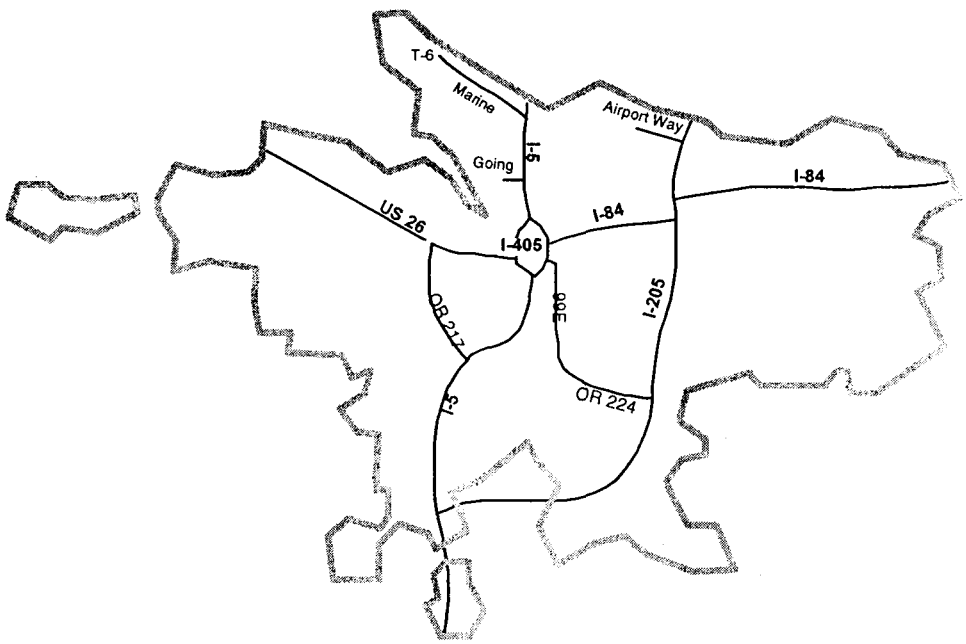
One-hour of significant congestion is expected in the peak-hour of the day within the Central City, Regional Centers, Main Streets and Station Communities because of the level of activity expected to occur in these areas. This one-hour of significant congestion is acceptable in these 2040 Design Types because the opportunity to use alternative modes of travel is greatest in these areas. However, more than one-hour of significant congestion is unacceptable, with the preference being that these areas remain substantially uncongested for the remainder of the day.

Less congestion will be tolerated in the less concentrated Corridors, Industrial Areas, Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods.

Acceptable levels of congestion for Regional Highway Corridors will be determined on a case-by-case basis in the Regional Transportation Plan. Regional Highway Corridors are defined as I-84, I-205, I-5, I-405, US 26, OR 217, OR 224, 99E, Marine Drive from I-5 to T-6 terminal, Going Street from I-5 to Swan Island and Airport Way from I-205 to Portland International Airport. (See Regional Highway Corridors map in Figure 2.7 at the end of this chapter.)

Figure 2.7

Regional Highway Corridors



The framework plan motor vehicle standard establishes acceptable levels of congestion for the peak hour and mid day for (a) concentrated centers and main streets, (b) less concentrated corridors, industrial areas and neighborhoods and (c) regional highways on a case by case basis. The framework plan also conditions these standards with the

consideration that economic viability and livability of a given area should be protected by ensuring that peak period levels congestion are limited in duration.

To implement these policies, the following table is proposed for inclusion in the 1998 RTP:

Table 4. Motor Vehicle Level of Service Deficiency Threshold*

Location	Mid-Day One-Hour Peak			A.M./P.M. Two-Hour Peak		
	Preferred	Acceptable	Exceeds	Preferred	Acceptable	Exceeds
Central City, Regional Centers, Town Centers, Main Streets and Station Communities	C	E	F	1st hour E 2nd hour E	1st hour F 2nd hour E	1st hour F 2nd hour F
Corridors, Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods	C	D	E	1st hour E 2nd hour D	1st hour E 2nd hour E	1st hour F 2nd hour E
Regional Highway Corridors	identify and evaluate on a case-by-case basis to balance regional mobility and accessibility objectives			identify and evaluate on a case-by-case basis to balance regional mobility and accessibility objectives		

* Motor vehicle level of service is determined by using either the latest edition of the Highway Capacity Manual (Transportation Research Board) or through volume to capacity ratio equivalencies as follows: LOS C = .8, LOS D = .8 to .9, LOS E = .9 to 1.0 and LOS F = greater than 1.0.

TPAC Recommendation: Adopt these provisions in the 1998 RTP, with the caveat that case-by-case regional highway measures must be developed and analyzed and other proposed level-of-service measures must be further evaluated.

MPAC/JPACT Subcommittee Recommendation: Concur.

JPACT Recommendation: Revise the second paragraph in Policy 2.28 to better distinguish the a.m. and p.m. peak hours of the day as follows,

One-hour of significant congestion is expected in <u>both</u> the <u>a.m. peak-hour of the day and the p.m.</u> peak-hour of the day within the Central City, Regional Centers, Main Streets and Station Communities because of the level of activity expected to occur in these areas. This ~~one-hour of significant~~ <u>level of</u> congestion is acceptable in these 2040 Design Types because the opportunity to use alternative modes of travel is greatest in these areas. However, more than one-hour of significant congestion <u>in either the a.m. peak-hour of the day or p.m. peak-hour of the day</u> is unacceptable, with the preference being that these areas remain substantially uncongested for the remainder of the day.

MPAC Recommendation: Concur with JPACT recommendation.

3) Add transit level of service policy to Chapter 2.

Staff Recommendation: Revise Chapter 2 to include new transit level of service policy 2.29., as follows:

2.29. Transit Level Of Service
Establish transit level of service thresholds that balance the regional accessibility and mobility policies with the region's growth management objectives. Exceeding an acceptable threshold identifies a transit system deficiency or need. The Regional Transportation Plan shall define specific thresholds for each 2040 Design Type, as appropriate, to ensure that the highest quality transit service (in terms of coverage, speed and frequency) is available to the areas with the highest population and employment densities.

Within the Central City and Regional Centers, the regional public transportation system shall provide full coverage to high-quality transit service for all households and jobs within ¼-mile of that service, including routes competitive with the automobile and frequent service to its full market area.

Within Town Centers, Main Streets, Station Communities and Corridors, the regional public transportation system shall provide full coverage to high-quality transit service for all households and jobs within ¼-mile of that service, including routes competitive with the automobile.

Within Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods, the regional public transportation system shall provide an appropriate level of transit service, if densities in those Design Types exceeds 10 persons per acre.

To implement these policies, the following table is proposed for inclusion in the 1998 RTP. Table 5 identifies specific transit level-of-service thresholds for coverage, travel time and frequency for each 2040 Design Type.

Table 5. Transit Level-of-Service Deficiency Thresholds

2040 Design Type	Threshold
For Travel To and Within the Central City and Regional Centers	a. 100 percent access* to high-quality transit within ¼-mile of all households and employment. b. the ratio of peak in-vehicle point-to-point travel time (route time) for transit is no more than 1.5 times the off-peak auto travel time**. c. the ratio of the actual peak transit "trip time" (which includes in-vehicle travel time (IVTT)*** and out-of-vehicle travel time (OVTT)****) to the auto peak travel time is not greater than two).
For Travel To and Within Town Centers, Main Streets, Station Communities and Corridors	a. 100 percent access to high-quality transit within ¼-mile of all households and employment. b. the ratio of peak in-vehicle point-to-point travel time (route time) for transit is no more than 1.5 times the off-peak auto travel time.
For Travel To and Within the Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods	a. 100 percent access to transit within ¼-mile of all areas that have a density of 10 persons per acre or greater.

* **100 percent access** is defined as every person living or working in a designated land use is within ¼-mile of transit service.

** **Off-peak auto travel time** is defined as auto travel time in minutes between an origin and a destination, occurring outside of the AM peak (7 a.m.-9 a.m.) and the PM peak (4:30 p.m.-6:30 p.m.).

*** **In-vehicle travel time (IVTT)** is defined as transit travel time in minutes between an origin and a destination, not including walk and wait time to or at a transit stop.

**** **Out-of-vehicle travel time (OVTT)** is defined as transit travel time in minutes between an origin and a destination, including walk and wait time to or at a transit stop.

In addition, Chapter 1 of the RTP provides a hierarchy of public transportation service for each 2040 Design Type that defines the most efficient level of public transportation service planned for a given land use and is indicated with a solid square(s). Figure 1.3, as reflected in Chapter 1, is shown below.

Figure 1.3

Hierarchy of Public Transportation Services and the 2040 Growth Concept

Service Types	Primary Components				Secondary Components				Other Urban Components		
	Central City	Regional Centers	Industrial Areas	Intermodal Facilities	Station Communities	Town Centers	Main Streets	Corridors	Employment Areas	Inner Neighborhood	Outer Neighborhood
LRT	■	■		□**	■	□					
Regional Rapid Bus	■	■			□			□			
Frequent Bus	■	■			□	□	■	□			
Primary Bus	■	■	□		□	■	□	■			
Secondary Bus	□	□	■	■	□	□	□	□	■	■	□
Mini-bus	□	□	□		□	□	□	□	■	□	■
Paratransit	□	□	□		□	□	□	□	□	□	□
Park-and-Ride		□			□	□		□		□	■

■ *Best public transportation mode(s) designed to serve growth concept land use components*

□ *Additional public transportation mode(s) that may serve growth concept land use components*

** *Anticipated LRT services to Portland International Airport*

TPAC Recommendation: Concur.
MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

4) Recommend discussion of the Public Transportation System Map related to how the map should designate special modal transit elements (e.g., commuter rail, the central city street car, airport LRT, and high capacity transit along Highway 217, south of Beaverton) that may either be implemented or studied during the 20-year life of the Regional Transportation Plan.

Staff Recommendation: Staff recommends a three-step process for designating special modal transit elements.

- First, routes should be designated as high capacity transit (HCT) where special right-of-way treatments will be considered. An HCT designation represents very good transit service, whether the service is provided by fixed guideway rail transit (LRT, commuter rail, street car) or high speed, high quality Regional Rapid bus service that emulates LRT.

- Second, a designation becomes "Proposed LRT, street car or commuter rail" when a regional policy decision has been made that this is a cost-effective treatment for a particular corridor.
- Third, a route is designated as "Planned LRT, street car or commuter rail" when a regionally endorsed financing plan has been adopted for a recommended treatment of that corridor.

Therefore, staff recommends revising the Public Transportation System Map (version 3.0) to reflect the following hierarchy of designations for the special modal transit elements:

Special Modal Transit Element/Location	Public Transportation System Map Designation
Airport LRT	Proposed
Central City Street Car	Proposed
Lake Oswego Trolley	HCT (with a note attached to the Highway 43 corridor to reflect that the right-of-way has been preserved for future HCT service)
Washington County Commuter Rail along Highway 217	HCT

TPAC Recommendation: Concur.
MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

5) Add local street connectivity policy to Chapter 2.

Staff Recommendation: Revise Chapter 2 to include new local street connectivity policy 2.30., as follows:

Policy 2.30. Local Street Connectivity
Establish 10 to 16 street intersections per mile as a minimum range for local street connectivity, except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent full street connections. The number of street intersections should be greatest in the highest density mixed-use centers. Consider bicycle, pedestrian and emergency accessway connections on public easements or right-of-way when full street connections are not possible, with spacing between auto connections of at least 16 connections per mile in the highest density mixed-use centers, except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension.

TPAC Recommendation: Concur.

MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

6) How will regional street design policies be implemented?

Staff Recommendation: Currently, the street design concepts and policies are included in Chapter 1 of the RTP, which was adopted by resolution in July 1996. These design concepts affect all regional facilities and include boulevard, street, road, highway and freeway designs. Each concept includes design elements that reflect modal priorities and the 2040 land use type that the design is intended to serve. Chapter 1 does not include regional design standards.

Many of the elements of the boulevard design concept were also incorporated into Title 6 of the Urban Growth Management Functional Plan (UGMFP). Title 6 requires local jurisdictions to amend local plans and ordinances to allow boulevard designs, and that these elements must be considered when regional facilities in centers and main streets are constructed. A boulevard map accompanies these provisions, but was developed solely for the purpose of implementing Title 6.

The Creating Livable Streets: *Street Design Guidelines for 2040* handbook provides design solutions for the street design concepts and policies. The handbook was developed shortly after adoption of the UGMFP, and is intended to serve as a set of guidelines for local implementation of RTP street design policies.

The following are a range of five approaches to implementation of the regional street design policies, ranging from voluntary to prescriptive:

1. Adopt a specific set of minimum and maximum design standards for each element of each street design concept;

2. Adopt a specific set of minimum and maximum design standards for key elements of each street design concept;

3. Reward the use of a specific set of minimum and maximum design standards through regional funding criteria;

4. Require that local design codes and implementing ordinances not preclude design guidelines set forth in the handbook;

5. Implement the regional design concepts and policies through local transportation system plans, with the handbook setting non-binding guidelines for local code development.

Staff Recommendation: One of the key findings of the Street Design Work Team was that many local jurisdictions have already adopted, or are developing, street design ordinances that will help to implement the 2040 Growth Concept. For this reason, staff

recommends that the RTP design concept and policies be the primary implementation tool for local jurisdictions, and that the handbook provide non-binding guidelines as a resource for local plan development. Revise Chapter 2 to include new policy 2.11.5, as follows:

2.11.5. To implement regional street design policies, Metro shall consider non-binding guidelines contained in "Creating Livable Streets: Street Design Guidelines for 2040" (1997) and other non-binding resources.

TPAC Recommendation: Concur.
MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

7) Add regional mode split target policy to Chapter 2.

Staff Recommendation: Revise Chapter 2 to include new mode split policy 2.18.7 as follows:

"2.18.7. Mode split will be used as the key regional measure for transportation effectiveness in this region. Metro shall establish an alternative mode split target (defined as non-Single Occupancy Vehicle person trips as a percentage of all person trips for all modes of transportation) for each of the 2040 Design Types identified in Table 3, below.

The alternative mode split targets shall be evaluated for each 2040 Design Type based on their ability to help the region meet the Transportation Planning Rule 10 percent VMT reduction requirement. Metro will develop additional guidance in the Regional Transportation Plan on methods to implement these regional mode split targets.

Table 3. Regional Non-SOV Mode Split Targets
Needed To Achieve State Transportation Planning Rule 10% VMT/capita Reduction Requirement (for trips to and within each 2040 Design Type)

2040 Design Type	Non-SOV* Mode Split Target
Central City	60-70%
Regional Centers, Town Centers, Main Streets, Station Communities and Corridors	45-55%
Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods	40-45%

*Non-SOV includes shared ride, bike, walk and transit."

TPAC Recommendation: Concur.
MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

8) Recommend that the Regional Framework Plan clearly identify the roles that Metro and local governments will play in implementing the plan.

Staff Recommendation: The Regional Framework Plan establishes policies applicable to Metro. Separate functional plans identify the role that local governments play in implementing the plan, including any mandates or recommendations. The transportation chapter of the Regional Framework Plan will be implemented through the 1998 Regional Transportation Plan, a Metro functional plan, once the current update is complete. In the interim, Title 6 of the Urban Growth Management Functional Plan will be amended at the time the Regional Framework Plan is adopted to identify the role that local governments will play in implementing transportation policies reflected in the Regional Framework Plan.

The following is the recommended means for implementing key policies identified in Chapter 2 of the Regional Framework Plan:

- Motor vehicle level-of-service thresholds (Policy 2.28.) are recommended to be added to the 1998 RTP and Title 6, Section 4 of the Urban Growth Management Functional Plan as optional for city and county plans in December 1997. Table 4, identified in Item No. 3 of this memo, (with any amendments) is envisioned to be required for city and county plans when the 1998 RTP is adopted.

- Transit level-of-service thresholds (Policy 2.29) are recommended to be added to the 1998 Regional Transportation Plan(RTP). The 1998 RTP will incorporate Table 5 (shown in Item 4 of this memo) and identify how these thresholds will be made applicable to city and county plans.

- Modal System Maps are recommended to be Chapter 1 of the 1998 RTP. These maps will continue to be refined from public comments and city and county experience in developing local transportation system plans. The 1998 RTP will identify how these modal system maps (with any amendments) will be made applicable to city and county plans.

- Local street connectivity (Policy 2.30) is recommended to be added to the 1998 RTP and Title 6, Section 3 of the Urban Growth Management Functional Plan by December 1997. Policy 2.30. changes the Title 6, Section 3 requirement from "8-20 connections per mile" to "10-16 street intersections per mile" and adds consideration of bicycle, pedestrian and emergency accessway connections when full street connections are not possible.

- Regional street design guidelines for "boulevards," "streets," "roads" and highways" is recommended to be required <u>for consideration only</u> in all 2040 Design Types in Chapter 1 of the 1998 RTP, and as guidelines in Title 6 of the Urban Growth Management Functional Plan by December 1997. The Regional Street Design Map (version 3.0) will replace the Boulevard Design Map currently in the Urban Growth Management Functional Plan.

- Regional mode split targets (Table 3) are recommended to be added to the 1998 RTP. The 1998 RTP will identify how these targets (and any requirements) will be implemented as well as how they will be made applicable to city and county plans.

TPAC Recommendation: Concur.
MPAC/JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

Consent Items

9) Identify what actions Metro will consider when addressing a system deficiency or need.

Staff Recommendation: Revise Chapter 2 to add the following text to Policy 2.28. (as discussed in Item 3 of this memo)

Projects or strategies, as appropriate, may be developed and proposed to address unacceptable levels of congestion, consistent with Sections A and B, below.

A. Transportation Systems Analysis
Congestion and growth management actions shall be considered at the appropriate system planning level. System planning is defined as regional or local transportation system plans (TSPs), multi-modal corridor and sub-area studies, mode specific plans or special studies.

1. To address congestion actions, Metro shall consider:
   a. regional transportation demand management strategies
   b. regional transportation system management techniques, including Intelligent Transportation Systems (ITS)
   c. High Occupancy Vehicle (HOV) strategies
   d. transit, bicycle and pedestrian improvements to improve mode split
   e. congestion pricing

2. To address growth management actions, Metro shall consider:
   a. consistency with regional land use and mode split policies
   b. latent demand effects from other modes, routes or time of day
   c. "downstream" transportation effects resulting from a proposed action

B. Transportation Project Analysis
For Metro to add a significant capacity expansion to a regional motor vehicle facility, the following actions shall be applied, unless a defined capacity expansion (need, mode, corridor and function) is included in the Regional Transportation Plan:

1. To address level of service, Metro shall implement the following:
   a. transportation system management techniques
   b. corridor or site-level transportation demand management techniques
   c. additional motor vehicle capacity onto parallel facilities, including the consideration of a grid pattern consistent with connectivity standards contained in Title 6 of the Urban Growth Management Functional Plan
   d. transit, bicycle and pedestrian improvements to improve mode split

2. To address preservation of motor vehicle function, Metro shall implement the following:
   a. traffic calming
   b. change the motor vehicle functional classification, consistent with the Regional Transportation Plan

3. To address or preserve existing street capacity, Metro shall implement the following:
   a. transportation system management techniques (e.g. access management, signal interties, lane channelization)

4. To address regional street design policies, Metro shall consider non-binding guidelines contained in "Creating Livable Streets: Street Design Guidelines for 2040" (1997) and other non-binding resources.

TPAC Recommendation: Concur.
MPAC/ JPACT Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

10) Add the Regional Street Design Map (version 3.0) to Chapter 2 as Figure 2.1.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.1.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

11) Add the Regional Motor Vehicle System Map (version 3.0) to Chapter 2 as Figure 2.2.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.2.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

12) Add the Regional Public Transportation System Map (version 3.1) to Chapter 2 as Figure 2.3. (Note: Version 3.1 would include all recommended changes identified in Items 4, 17 and 19 in this memo.)

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.3, including changes recommended in Items 4,17 and 19 in this memo.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

13) Add the Regional Pedestrian System Map (version 3.0) to Chapter 2 as Figure 2.4.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.4.
TPAC Recommendation: Concur.

JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

14) Add the Regional Bicycle System Map (version 3.0) to Chapter 2 as Figure 2.5.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.5.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

15) Add the Regional Freight System Map (version 3.0) to Chapter 2 as Figure 2.6.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.6.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

16) Add Regional Highway Corridors Map (version 1.0) to Chapter 2 as Figure 2.7.

Staff Recommendation: Agree. Amend Chapter 2 to reflect new Figure 2.7.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: Concur.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

17) Add symbols to the Public Transportation System Map that denote conceptually where secondary transit service coverage exists.

Staff Recommendation: Agree. Amend the Public Transportation System Map (version 3.0) to denote that secondary transit service will tie regional centers and light rail stations to surrounding communities.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

18) Develop a map that shows the HCT and rail corridors in the 1998 RTP.

Staff Recommendation: Agree. Develop "Regional High-Capacity Transit and Rail Corridors" map for inclusion in the 1998 RTP.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.

JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

19) Amend the Public Transportation System Map (version 3.0) to denote high-speed rail between Portland and Eugene.

Staff Recommendation: Agree. Amend the Public Transportation System Map (version 3.0) to reflect this service.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

20) Recommended resolution of inconsistent language in Policy 2.23 and Policy 3.4.1. of the framework plan. Policy 2.23. in the transportation chapter states, "Provide reasonable and convenient access to regional cultural, historic or natural area sites for passive and active recreational or tourism purposes." In reference to Policy 2.23., the Regional Bicycle System Map identifies regional trails that provide a "transportation function." Policy 3.4.1., in the Parks and Open Spaces chapter states "Metro will identify a Regional Trails System which shall be included in the Regional Transportation Plan..." In addition, Policy 3.4.2. of the same chapter states the "...Regional Trails System shall provide access to publicly owned parks, natural areas, open spaces, and greenways."

The subcommittee recommended that TPAC discuss how and where access to recreational areas and facilities should be provided because they are considered "destinations" and the Regional Framework Plan reflects the need to provide access to those types of "destinations."

Staff Recommendation: Staff recognizes the importance of providing access to regionally significant parks, open spaces and recreational facilities. Therefore, it is recommended that the bicycle and pedestrian transportation policies include this aspect. However, designation and implementation of a regional recreational trails system is more appropriate for the Parks and Open Spaces chapter of the Regional Framework Plan (Chapter 3). Coordination between transportation staff and greenspaces staff as well as local, state and federal agencies will be an important component of planning for a regional recreational trails system.

Therefore, staff recommends:

- amending Policy 3.4.1. on page 111 of the Framework Plan to read, "Metro will identify a Regional Recreational Trails System which shall be included in the ~~Regional Transportation Plan~~ Metropolitan Greenspaces Master Plan."
- amending Policy 2.15. to read, "One way to meet the region's travel needs is to provide greater opportunity to use bicycles for shorter trips and to access regionally significant parks, opens spaces and recreational facilities."
- add a new policy to the "Pedestrian transportation" section that reads "Increase the walk mode share for short trips, including walking to public transportation within the central city, regional centers, town centers, main streets, corridors and LRT

station communities and as access to regionally significant parks, open spaces and recreational facilities."

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

21) Delete repetitive descriptions of the regional transportation elements of the 2040 Growth Concept on pages 66-70 and 76-80.

Staff Recommendation: Agree. Recommend deletion of transportation-related text on pages 66-70 of Chapter 1. The descriptions on pages 76-80 reflect currently approved Chapter 1 Regional Transportation Plan policy text.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

22) Add a summary of Metro's 1994 Travel Behavior/Activity Survey to page 80.

Staff Recommendation: Agree. Amend Chapter 2, page 80 to add the following text, "**1994 Travel Behavior/Activity Survey**

In 1994, Metro also conducted a travel behavior survey within the four-county boundary of Clackamas, Multnomah and Washington Counties in Oregon and Clark County, Washington. As part of this survey, approximately 6,000 households kept a diary of activities performed over a two-day period, including identification of how individuals traveled to those activities. The study was designed to focus on the relationship between an activity type and the need for travel and highlighted the importance of all activities, whether "big" or "small." Results from the study are summarized in Table 2, below.

Table 2. Summary of 1994 Metro Travel Behavior/Activity Survey Results (for all trip purposes)

	Mode Share					Vehicle Miles per Capita	Auto Ownership per Household
Land Use Type	% Auto	% Walk	% Transit	% Bike	% Other		
Areas with Good Transit/ Mixed Use In Multnomah County	58.1%	27.0%	11.5%	1.9%	1.5%	9.80	0.93
Areas With Good Transit Only In Multnomah County	74.4%	15.2%	7.9%	1.4%	1.1%	13.28	1.50
Remainder of Multnomah County	81.5%	9.7%	3.5%	1.6%	3.7%	17.34	1.74
Remainder of Region	87.3%	6.1%	1.2%	0.8%	4.6%	21.79	1.93

Source: Metro Travel Forecasting Department

Areas with good transit service and a good mix of land uses showed the highest percentage of alternative mode use (41.9 percent combined). Conversely, the remainder of the region showed the highest percentage of auto use (87.3 percent). This indicates that individuals are likely to use the automobile when no other choices exist, but may choose other alternatives when they are available. The results of this study support this region's effort to link land use and transportation planning as a means to provide a balanced, multi-modal transportation system.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

23) Add a section called "Water Quality Implications" (or combine with air quality implications discussion on page 83) that addresses the affect of polluted storm water from the transportation system on water quality.

Staff Recommendation: Agree. Recommend adding the following text to a new section called "Water Quality Implications" on page 83:

"Water quality implications

Impervious surfaces are hard surfaces that do not allow water to soak into the ground, and increase the amount of stormwater running off into the stormwater drainage system. The majority of total impervious surfaces is from roads, sidewalks, parking lots and driveways. Stormwater runoff from these impervious surfaces reduces the amount of recharge of water to ground water and increases the capacity requirements of the stormwater drainage system. Higher impervious surface coverage has been linked to dramatic changes in the shape of streams, water quality, water temperature and the

health of the flora and fauna that live in the natural waterways. Examples of impervious surface reduction techniques include:

- consider use of open channels and swales on smaller streets and roads, as long as runoff velocities are low enough to prevent erosion;
- grade sidewalks so that storm water runs off into adjacent unpaved areas such as planting strips or landscaped private property;
- encourage the use of shared parking to reduce the size and number of parking lots;
- consider reducing commercial, industrial and multi-family use parking requirements to reduce impervious surface coverage;
- encourage shared driveways between adjacent development projects;
- follow guidelines for erosion control techniques during construction of regional streets and adjacent development projects."

TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

24) Amend Policy 2.24.3 on page 93 to read "Reduce negative impacts on parks, public open spaces, natural areas...arising from noise, visual impacts, ~~and~~ physical segmentation and volume and pollutants of storm water runoff from transportation facilities."

Staff Recommendation: Agree. Amend Chapter 2 to reflect proposed revision.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

25) Add policies to ensure that transportation funds will be used to further all regional goals (i.e., link transportation spending with compliance by cities and counties to regional performance standards, including: affordable housing, jobs/housing balance, greenspace protection, brownfield redevelopment and others). Policies should also support preservation and enhancement of existing neighborhood-scale, mixed use development.

Staff Recommendation: This issue will be considered in the financial component of the current Regional Transportation Plan (RTP) update. The Regional Framework Plan may be amended to reflect the updated RTP.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

26) Add text to better integrate walkability into the broader transportation/land use policy framework. Chapter 2 currently segregates pedestrian issues.

Staff Recommendation: Agree. Recommend the following additions to Chapter 2 of the Regional Framework Plan:

- amend page 88, Policy 2.14 to read, "Walking is the most basic form of transportation and links most other trip types. All bicycle, bus, light rail, car and truck trips begin and end in a walk. By providing dedicated space for those on foot or using mobility devices...Combined with adequate sidewalks and curb ramps, amenities such as such as benches, curb extensions, marked street crossings, landscaping and wide planting strips make walking ~~an~~ safe, attractive and convenient mode of travel. This benefits other elements of the region's transportation system and complements the region's urban form and growth management goals. For example, both bus users and motorists benefit from an improved pedestrian environment. Features that make waiting for a bus safer and more appealing are improved street crossings, street lighting, bus shelters, benches and wide planting strips that create a buffer for pedestrians between the curb and sidewalk. For motorists, where there are sidewalks and street crossing opportunities, a person can park a car once to access several destinations. The focus of the regional pedestrian system..."

- add a new policy to the "Pedestrian transportation" section that reads "Increase the walk mode share for short trips, including walking to public transportation and regionally significant parks, open spaces and recreational facilities, near and within the central city, regional centers, town centers, main streets, corridors and LRT station communities."

- amend page 87, Policy 2.13 to read, "...Public transportation ridership is highly dependent on pedestrian access and adjacent land use. Therefore, ~~T~~the overarching goal of the public transportation system, within the context of the 2040 Growth Concept, is to provide an appropriate level of access to regional activities for everyone residing within the Urban Growth Boundary (UGB). An important aspect of this goal is promoting public transportation amenities and connections to serve the region's major activity centers. Providing amenities that make walking to or waiting for transit safer and more pleasant (e.g., street lighting, benches, bus shelters, improved street crossings) can benefit other elements of the region's transportation system and complement the region's urban form and growth management goals. The region's public transportation policies are..."

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

27) Add a policy on "User Cost Responsibility", including congestion pricing and other mechanisms to assess users for the full cost of their transportation choices.

Staff Recommendation: Disagree. Financial policies will be addressed after the Framework Plan is developed as part of the RTP update. The Regional Framework Plan may be amended to reflect the updated RTP.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

28) Amend policy 2.6.2. to read "Serve new development ~~should be served~~ with interconnected public streets..."

Staff Recommendation: Agree. Amend Chapter 2 to reflect proposed revision.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

29) Amend policy 2.6.3. to read "Provide street, bicycle and pedestrian connections ~~should be provided~~ to transit routes..."

Staff Recommendation: Agree. Amend Chapter 2 to reflect proposed revision.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

30) Amend policy 2.7.1 to read "~~Provide transportation facilities that~~ Ssupport a balance of housing and jobs ~~as well as the community identity of neighboring cities~~ to reduce the need for additional transportation facilities. Provide housing that is easily accessible to jobs that is affordable to all members of the workforce."

Staff Recommendation: Agree. Amend Chapter 2 to reflect proposed revision.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

31) Amend policy 2.8. to read "~~Encourage bicyclists, motorists and pedestrians to share the road safely. Expand the amount of information available about alternative modes of travel to encourage their use.~~ Develop and implement comprehensive K-12 education on transportation safety and transportation options."

Staff Recommendation: Disagree. The recommended revision defines a method of implementation for Policy 2.8. Implementation of Policy 2.8. will be defined in the Regional Transportation Plan (RTP) once the RTP update is complete.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

32) Amend Policy 2.26. to read "Discourage automobile driving as a means to improve air quality."

Staff Recommendation: Disagree. This issue is more positively addressed in Policy 2.26.2. which states, "Encourage use of all modes of travel (e.g., transit, telecommuting, zero-emissions vehicles, ridesharing, bicycles and walking) that contribute to clean air."

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

33) Add transportation-related definitions to the Regional Framework Plan glossary for mobility, accessibility , full street connection and accessway.

Note: Mobility and accessibility are defined in the current draft of the Regional Framework Plan (see pages 246 and 253).

Staff Recommendation: Agree. Amend Chapter 2 to include the following definitions:

Full Street Connection. Public right-of-way designed for motor vehicles, pedestrians, and bicycles.

Accessway. Public right-of-way or easement designed for bicycles and pedestrians, and may include emergency vehicle passage.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

34) Add new policies to the water quality section on page 93 as proposed below:

- Establish minimum standards for treatment of stormwater runoff from all transportation facilities, including parking lots, to maintain the quality of water in urban waterways and wetlands.

- Establish minimum standards for treatment of stormwater quantity to eliminate or minimize the serious negative impacts of increased storm water flow to urban waterways and wetlands.

- Establish performance standards for mitigation of stormwater runoff impacts to water quality and quantity from transportation systems, including parking lots.

Staff Recommendation: Recommend discussion on the appropriateness of establishing such standards at the regional level.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

35) Revise air quality section to reflect recent changes to the region's attainment status.

Staff Recommendation: Agree. Amend Chapter 2, page 74, to read"

The Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA) was designated as a marginal nonattainment area for ozone and moderate nonattainment area for carbon monoxide in 1991. By the end of 1991, the area began to meet the federal ozone and carbon monoxide standards on a consistent basis. As a result, the region began to work on ten-year maintenance plans and attainment redesignation requests for both pollutants. These plans were finalized in 1996 and submitted to the U.S. Environmental Protection Agency (EPA) as revisions to the Oregon State Implementation Plan (SIP). EPA approved the maintenance plans and also redesignated the Portland-Vancouver Interstate AQMA to attainment status in 1997.

The maintenance plans were developed on the basis of Metro's long-range population and employment forecasts. Control strategies, including ~~Oregon SIP required the region to implement specific~~ transportation control measures (TCMs) were developed to reduce automobile emissions to show standards maintenance through the ten-year plan period ~~in the region~~. These measures include projects to provide facilities for alternative modes, demand management programs to encourage use of alternative modes and implementation of the 2040 land use framework to produce more transportation efficient land use patterns. The goal of these measures is to manage travel demand and improve traffic flow in order to reduce the number of vehicle trips made and the number of vehicle miles traveled. The SIP recognizes that land use patterns that shorten trips and increase opportunities for transit, bicycling and walking also help reduce emissions.

~~Currently, the status of the Portland-Vancouver AQMA is under review for attainment of federal air quality standards. The AQMA is anticipated to be found in compliance with requirements to meet and maintain federal air quality standards for carbon monoxide and ozone for a ten year time period. However, it is likely that because of expected future growth, air quality regulations may stipulate certain measures remain~~

~~in place or be enhanced in order for the region to remain in attainment as additional growth occurs.~~ The Oregon Department of Environmental Quality monitors three locations for the ozone standard and four locations for the carbon monoxide standard for the Portland-Vancouver AQMA, as shown in Table 1, below.

Table 1. Oregon Department of Environmental Quality Air Quality Monitoring Locations

Ozone Monitoring Locations	Carbon Monoxide Monitoring Locations
Milwaukie High School	4th/Alder Street - downtown Portland
Sauvie Island	Postal Building - downtown Portland
Carus (approximately 5 miles south of Oregon City on Highway 213)	SE 82nd Avenue/Division Street - Portland

In 1996, the AQMA area exceeded the summer ozone standard twice at one monitoring location (Milwaukie High School). A fourth~~third~~ exceedance, at one monitoring location over a three-year period, would violate federal air quality standards and trigger ~~the region's transportation control measures as defined in~~ the SIP contingency plan for ozone. The contingency plan provides for a rule development process to reduce emissions from industry and other sources. Any TCMs identified as control strategies are to be included inn Metro's Transportation Improvement Program and the Regional Transportation Plan within twelve months after the violation is recorded.

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

36) Add discussion of ISTEA requirement for establishment of a National Highway System.

Staff Recommendation: Agree. Amend Chapter 2, page 73, to add the following text, " "ISTEA also requires the establishment of a National Highway System to provide an interconnected system of principal arterial routes that will serve major population centers, public transportation facilities, airports, and intermodal facilities, and serve interstate and inter-regional travel. "

TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

37) Amend the following bullets under transportation implications, on page 81 and 82, as follows,

- The transportation system must serve the urban form established in the Growth Concept if the region is to be successful in managing expected growth.
- In addition to supporting implementation of the 2040 Growth Concept, policy implementation must give top priority to projects or programs that maintain or preserve existing transportation infrastructure and address safety-related deficiencies, including the safety of pedestrians and cyclists.
- Higher-density, mixed-use locations should be tied to the highest quality transit and should provide ~~include~~ improved pedestrian and bicycling environments.
- Improved transit, pedestrian and bicycle travel, parking limits and other transportation demand management actions ~~should~~ complement higher-density land use de~~s~~tignations and will help achieve ~~if a~~ mandated 10 percent reduction in VMT per capita in the UGB by 2015 and a 20 percent reduction by 2025 ~~is sought~~.
- Local governments should ~~be encouraged to~~ implement code changes that address building orientation and pedestrian access to transit, particularly in higher-density centers and corridors, consistent with requirements contained in the Oregon Transportation Planning Rule.
- Access to highway corridors that connect the region to neighboring towns must be limited to reduce ~~if~~ urban development pressure on adjacent rural lands ~~is sought~~.
- Specific ~~U~~urban connector routes through rural areas outside the Metro UGB should be designated as such and designed to ensure safe, efficient travel while discouraging urban development. ~~to urban standards if this type of traffic is to be accommodated.~~ Other rural routes should be limited to serve only rural needs ~~if~~ to reduce urban development pressure ~~is not sought~~.
- Parking limitations, pedestrian amenities and compact, more densely developed urban areas should be implemented to reduce ~~employed if reductions in~~ vehicle miles traveled and to increase ~~increases in~~ transit ridership ~~are sought~~.
- Local street connectivity must be improved for more direct local access to reduce ~~if reductions in~~ excess demand on regional routes and to promote alternative modes ~~is sought~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

38) Amend the fourth bullet on page 82 to read as follows,

- If greater reduction of transportation-related pollutant emissions becomes necessary to assure maintenance of the ozone standard, federal transportation funding may

increasingly be diverted to trip reduction programs and transit, bike and pedestrian capital projects. Accordingly, all major roadway expansion, construction or reconstruction projects ~~on arterials or major collectors should~~ must include pedestrian and bicycle facilities ~~improvements where such facilities do not currently exist~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

39) Amend Policy 2.2.1 to read as follows,

2.2.1. Ensure the identified ~~Provide an adequate regional transportation system to support planned land uses and land uses which are consistent with the~~ function, capacity and level of service of ~~planned~~ transportation facilities are consistent with regional land use and transportation goals as well as the adjacent land use patterns ~~systems~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

40) Amend Policy 2.3 to reflect Metro's policy related to its own public involvement procedures.

Staff Recommendation: Agree. Amend Policy section 2.3 as follows,

"2.3.1. Provide complete information, timely public notice, full public access to key decisions and support broad-based, early and continuing involvement of the public in all aspects of the transportation planning process that is consistent with Metro's adopted regional Public Involvement Policy and Local Public Involvement Policy for transportation planning. This includes involving those traditionally under-served by the existing system, those traditionally under-represented in the transportation planning process, the general public and local, regional and state jurisdictions that own and operate the region's transportation system in all aspects of the transportation planning process.
2.3.2. Develop a detailed public involvement work plan consistent with the regional Public Involvement Policy for each transportation plan, program or project.
2.3.3. Provide opportunities for the public to supply input. Revise work scopes, plans and programs to reflect public comment, as appropriate. Create a record of public comment received and agency response regarding draft transportation plans and programs at the regional level."

TPAC Recommendation: No discussion occurred on this issue.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

41) Amend Policy 2.4 to reflect the importance of industrial areas and intermodal facilities.

Staff Recommendation: Agree. Amend the first paragraph in Policy section 2.4 as follows,

"In developing new transportation system infrastructure, the highest priority should be meeting the accessibility and mobility needs of the central city, ~~and~~ regional centers and industrial areas and intermodal facilities."

TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

42) Add new policy that reflects an interconnected transportation system that serves both goods and people movement.

Staff Recommendation: Agree. Add new Policy 2.4.7 that reads as follows,

"2.4.7. Provide for the movement of people and goods through an interconnected system of air and rail systems, including passenger and freight intermodal facilities and air and water terminals.

TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

43) Amend Policy 2.4. to read "System ~~priorities~~ objectives."

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

44) Amend Policy 2.9.2. to read "Continue to work with local jurisdictions to ~~I~~identify and assess structural barriers to mobility for transportation disadvantaged populations in current and planned regional transportation system and address through a comprehensive program ~~of transportation and other actions.~~

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

45) Amend Policy 2.13.1.to read "Develop a public transportation system that provides ~~regional access~~ a primary transit level of service to ~~2040 Growth Concept primary land use components~~ ~~(~~central city and regional centers~~,~~ and a primary and/or secondary transit level of service to industrial areas, intermodal facilities~~)~~ and special regional destinations (such as major colleges or entertainment facilities) ~~with an appropriate level, quality and range of public transportation~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

46) Amend Policy 2.13.2. to read "Develop a public transportation system that provides ~~community access~~ a primary and/or secondary transit level of service to ~~2040 Growth Concept secondary land use components~~ ~~(~~station communities, town centers, main streets, corridors~~)~~ and special community destinations (such as local colleges or entertainment facilities) ~~with high quality service~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

47) Amend Policy 2.13.3. to read "Develop a ~~reliable, convenient and accessible~~ public transportation system ~~of~~ that provides a secondary transit level of service ~~public transportation that provides access~~ to ~~the 2040 Growth Concept "other urban components" (e.g.,~~ employment areas, outer neighborhoods and inner neighborhoods~~)~~.

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

48) Amend Policy 2.13.8. to read "Increase use of transit through ~~both expanding public transportation service and addressing a broad range of requirements for~~ making public transportation competitive with the private automobile."

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

49) Add new policy 2.17.5., "Establish minimum and maximum parking ratios no greater than those listed in Regional Parking Ratios Table and as illustrated in the Parking Maximum Map in Title 2 of the Urban Growth Management Functional Plan. The designation of A and B zones on the Parking Maximum Map should be reviewed after the completion of the Regional Transportation Plan update and every three years thereafter."

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

50) Amend Policy 2.20.1. to read "Where appropriate, plan for the preservation ~~Preserve~~ of ~~existing and abandoned~~ rights-of-way for future transportation ~~improvements~~ projects, including future transportation corridors."

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

51) Amend Policy 2.22.1.to read "Minimize the impact of urban travel on rural land uses. Limit access to and minimize urban development pressure on resource lands adjacent to transportation corridors that link neighboring towns to the nearest regional center by designating urban connectors between these destinations as "green corridors," with exceptions identified in the motor vehicle system map (see Figure 2.2 at the end of this chapter)."

Staff Recommendation: Agree. Amend Chapter 2 as proposed.
TPAC Recommendation: Concur.
JPACT/MPAC Subcommittee Recommendation: No discussion occurred on this issue.
JPACT Recommendation: Concur.
MPAC Recommendation: Concur.

TITLE 6: REGIONAL ACCESSIBILITY

Section 1. Intent

Implementation of the 2040 Growth Concept requires that the region identify key measures of transportation effectiveness which include all modes of transportation. Developing a full array of these measures will require additional analysis. Focusing development in the concentrated activity centers, including the central city, regional centers, and station communities, requires the use of alternative modes of transportation in order to avoid unacceptable levels of congestion. The continued economic vitality of industrial areas and intermodal facilities is largely dependent on preserving or improving access to these areas and maintaining reasonable levels of freight mobility in the region. Therefore, regional congestion standards and other regional system performance measures shall be tailored to reinforce the specific development needs of the individual 2040 Growth Concept design types.

These regional standards ~~will be~~are linked to a series of regional street design concepts that fully integrate transportation and land use needs for each of the 2040 land use ~~components~~design types in the Regional Framework Plan. The designs generally form a continuum; a network of throughways (freeway and highway designs) ~~will~~ emphasize auto and freight mobility and connect major activity centers. Slower-speed boulevard designs within concentrated activity centers ~~will~~ balance the multi-modal travel demands for each mode of transportation within these areas. Street and road designs ~~will~~ complete the continuum, with multi-modal designs that reflect the land uses they serve, but also serving as moderate-speed vehicle connections between activity centers that complement the throughway system. ~~While these designs are under development, it is important that improvements in the most concentrated activity centers are designed to lessen the negative effects of motor vehicle traffic on other modes of travel. Therefore, implementation of amenity oriented boulevard treatment that better serves pedestrian, bicycle and transit travel in the central city, regional centers, main streets, town centers, and station communities is a key step in the overall implementation of the Metro 2040 Growth Concept.~~ It is intended that the entirety of these Title 6 standards will be supplemented by the 1998 Regional Transportation Plan (RTP) ~~when the RTP is approved and adopted by the Metro Council~~.

~~Section 2. Boulevard Design~~

~~Regional routes in the central city, regional centers, station communities, main streets and town centers are designated on the Boulevard Design Map. In general, pedestrian and transit oriented design elements are the priority in the central city and regional centers, station communities, main streets and town centers. All cities and counties within the Metro region shall implement or allow others to implement boulevard design elements as improvements are made to these facilities including those facilities built by ODOT or Tri Met. Each jurisdiction shall amend their comprehensive plans and implementing ordinances, if necessary, to require consideration or installation of the following boulevard design elements when proceeding with right of way improvements on regional routes designated on the boulevard design map:~~

~~A. Wide sidewalks with pedestrian amenities such as benches, awnings and special lighting;~~

~~B. Landscape strips, street trees and other design features that create a pedestrian buffer between curb and sidewalk;~~

~~C. Pedestrian crossings at all intersections, and mid-block crossings where intersection spacing is excessive;~~

~~D. The use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult;~~

~~E. Accommodation of bicycle travel;~~

~~F. On street parking;~~

~~G. Motor vehicle lane widths that consider the above improvements;~~

~~H. Use of landscaped medians where appropriate to enhance the visual quality of the streetscape.~~

Section 2. Regional Street Design Guidelines

Regional routes in each of the 2040 Design Types are designated as one of four major classifications on the Regional Street Design Map, attached as Appendix ___, including: Boulevards, Streets, Roads and Throughways. All cities and counties within the Metro region shall consider the following regional street design elements when planning for improvements to these facilities, including those facilities built by ODOT or Tri-Met.

A. Boulevard Designs. Boulevards serve major centers of urban activity, including the Central City, Regional Centers, Station Communities, Town Centers and some Main Streets. Boulevards are designed with special amenities to favor public transportation, bicycle and pedestrian travel and balance the many travel demands of these areas. Boulevards are divided into regional and community scale designs on the Regional Street Design Map. Regional and Community Boulevards combine motor vehicle traffic with public transportation, bicycle and pedestrian travel where dense development is oriented to the street. Regional Boulevard designs usually include four vehicle lanes, with additional lanes or one-way couplets in some situations. Community Boulevard designs usually include four vehicle lanes and on-street parking. Fewer vehicle lanes may be appropriate in Community Boulevard designs in some situations, particularly when necessary to provide on-street parking. Cities and counties shall amend their comprehensive plan and implementing ordinances, if necessary, to require consideration of the following Regional and Community Boulevard design elements when proceeding with right-of-way improvements on regional routes designated on the regional street design map:

1. low to moderate vehicle speeds on Regional Boulevard and low vehicle speeds on Community Boulevards
2. the use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult
3. combined driveways
4. on-street parking where possible
5. wide sidewalks with pedestrian amenities such as benches, awnings and special lighting
6. landscape strips, street trees or other design features that create a pedestrian buffer between curb and sidewalk
7. improved pedestrian crossings at all intersections, and mid-block crossings where intersection spacing is excessive
8. striped bikeways or shared outside lane
9 motor vehicle lane widths that consider the above improvements

B. Street Designs. Streets serve the region's transit corridors, neighborhoods and some main streets. Streets are designed with special amenities to balance motor vehicle traffic with public transportation, bicycle and pedestrian travel in the 2040 Design Types they serve. Streets are divided into regional and community scale designs on the Regional Street Design Map. Regional Streets are designed to carry motor vehicle traffic while also providing for public transportation, bicycle and pedestrian travel. Regional street designs usually include four vehicle lanes, with additional lanes in some situations. Community Street designs usually include four vehicle lanes. Fewer vehicle lanes may be appropriate in Community Street designs in some situations, particularly when necessary to provide on-street parking. Cities and counties shall amend their comprehensive plan and implementing ordinances, if necessary, to require consideration of the following Regional Street design elements when proceeding with right-of-way improvements on regional routes designated on the regional street design map:

1. moderate vehicle speeds
2. the use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult or to manage motor vehicle access
3. combined driveways
4. on-street parking when appropriate
5. buffered sidewalks with pedestrian amenities such as special lighting and special crossing amenities tied to major transit stops
6 landscape strips, street trees or other design features that create a pedestrian buffer between curb and sidewalk
7. improved pedestrian crossings at signaled intersections on Regional Streets and improved pedestrian crossings at all intersections on Community Streets
8. striped bikeways or shared outside lane
9. motor vehicle lane widths that consider the above improvements

C. Urban Roads. Urban Roads serve the region's industrial areas, intermodal facilities and employment centers where buildings are less oriented to the street, and primarily emphasize motor vehicle mobility. Urban Roads are designed to carry significant motor vehicle traffic while providing for some public transportation, bicycle and pedestrian travel. These designs usually include four vehicle lanes, with additional lanes in some situations. Cities and counties shall amend their comprehensive plan and implementing ordinances, if necessary, to require consideration of the following Urban Road design elements when proceeding with right-of-way improvements on regional routes designated on the regional street design map:

1. moderate vehicle speeds
2. few driveways
3. sidewalks
4. improved pedestrian crossings at major intersections
5. striped bikeways
6. center medians that manage access and control left turn movements
7. motor vehicle lane widths that consider the above improvements

D. Throughways. Throughways connect the region's major activity centers within the region, including the central city, regional centers, industrial areas and intermodal facilities to one another and to points outside the region. Throughways are traffic oriented with designs that emphasize motor vehicle mobility. Throughways are divided into Freeway and Highways designs.

1. Freeway Design. Freeways are designed to provide high speed travel for longer motor vehicle trips throughout the region. These facilities also serve new urban areas added to the urban growth boundary where plans for urban land use and infrastructure are not complete. These designs usually include four to six vehicle lanes, with additional lanes in some situations. They are completely divided, with no left turn lanes. Street connections always occur at separated grades with access controlled by ramps. Cities and counties shall amend their comprehensive plan and implementing ordinances, if necessary, to require consideration of the following Freeway design elements when proceeding with right-of-way improvements on regional routes designated on the regional street design map:

   a. high vehicle speeds
   b. improved pedestrian crossings on overpasses
   c. parallel facilities for bicycles
   d. motor vehicle lane widths that accommodate freight movement and high-speed travel

2. Highway Design. Highways are designed to provide high speed travel for longer motor vehicle trips throughout the region while accommodating

limited public transportation, bicycle and pedestrian travel. Highways are usually divided with a median, but also have left turn lanes where at grade intersections exist. These designs usually include four to six vehicle lanes, with additional lanes in some situations. Cities and counties shall amend their comprehensive plan and implementing ordinances, if necessary, to require consideration of the Highway design elements when proceeding with right-of-way improvements on regional routes designated on the regional street design map:

a. high vehicle speeds
b. few or no driveways
c. improved pedestrian crossings at overpasses and all intersections
d. accommodation of bicycle travel through the use of a striped bikeway
e. sidewalks where appropriate
f. motor vehicle lane widths that accommodate freight movement and high-speed travel

Section 3. Design Standards for Street Connectivity

The design of local street systems, including "local" and "collector" functional classifications, is generally beyond the scope of the Regional Transportation Plan (RTP). However, the aggregate effect of local street design impacts the effectiveness of the regional system when local travel is restricted by a lack of connecting routes, and local trips are forced onto the regional network. Therefore, the following design and performance options are intended to improve local circulation in a manner that protects the integrity of the regional system.

~~Local jurisdictions~~Cities and counties within the Metro region are hereby required to amend their comprehensive plans and implementing ordinances, if necessary, to comply with or exceed one of the following options in the development review process:

A. **Design Option**. Cities and counties shall ensure that their comprehensive plans, implementing ordinances and administrative codes require demonstration of compliance with the following:

1. New residential and mixed-use developments shall include local street plans that:

   a. encourage pedestrian and bicycle travel by providing short, direct public right-of-way routes to connect residential uses with nearby existing and planned commercial services, schools, parks and other neighborhood facilities; and
   b. include no cul-de-sac streets longer than 200 feet, and no more than 25 dwelling units on a closed-end street system except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension; and

c. provide bike and pedestrian connections on public easements or right-of-way when full street connections are not possible, with spacing between connections of no more than 330 feet except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension; and

d. consider opportunities to incrementally extend and connect local streets in primarily developed areas; and

e. serve a mix of land uses on contiguous local streets; and

f. support posted speed limits; and

g. consider narrow street design alternatives that feature total right-of-way of no more than 46 feet, including pavement widths of no more than 28 feet, curb-face to curb-face, sidewalk widths of at least 5 feet and landscaped pedestrian buffer strips that include street trees; and

h. limit the use of cul-de-sac designs and closed street systems to situations where topography, pre-existing development or environmental constraints prevent full street extensions.

2. For new residential and mixed-use development, all contiguous areas of vacant and primarily undeveloped land of five acres or more shall be identified by cities and counties and the following will be prepared:

A map that identifies possible local street connections to adjacent developing areas. The map shall include street connections at intervals of no more than ~~660~~530 feet, with more frequent connections in areas planned for mixed use or dense development.

B. **Performance Option**. For residential and mixed use areas, cities and counties shall amend their comprehensive plans, implementing ordinances and administrative codes, if necessary, to require demonstration of compliance with performance criteria in the following manner. Cities and counties shall develop local street design standards in text or maps or both with street intersection spacing to occur at intervals of no less than ~~eight street intersections per mile~~530 feet except where topography, barriers such as railroads or freeways, or environmental constraints such as major streams and rivers, prevent street extension. The number of street intersections should be greatest in the highest density 2040 Growth Concept design types. Local street designs for new developments shall satisfy the following additional criteria:

1. Performance Criterion: minimize local traffic on the regional motor vehicle system, by demonstrating that local vehicle trips on a given regional facility do not exceed the 1995 arithmetic median of regional trips for facilities of the same motor vehicle system classification by more than 25 percent.

2. Performance Criterion: everyday local travel needs are served by direct, connected local street systems where: (1) the shortest motor vehicle trip over public streets from a local origin to a collector or greater facility is no more than

twice the straight-line distance; and (2) the shortest pedestrian trip on public right-of-way is no more than one and one-half the straight-line distance.

Section 4. Transportation Performance Standards

A. Alternative Mode Analysis

1. Mode split will be used as the key regional measure for transportation effectiveness in ~~the Central City, Regional Centers and Station Communities~~all 2040 Growth Concept land use design types. Each jurisdiction shall establish an alternative mode split target (defined as non-Single Occupancy Vehicle person-trips as a percentage of all person-trips for all modes of transportation) for ~~each of the central city, regional centers and station communities~~ all 2040 Growth Concept land use design types within its boundaries. The alternative mode split target shall be no less than the regional targets for these ~~Region~~ 2040 Growth Concept land use ~~components~~design types to be established in the 1998 Regional Transportation Plan.

2. Cities and counties ~~which have Central City, regional centers and station communities~~ shall identify actions which will implement the mode split targets. These actions should include consideration of the maximum parking ratios adopted as part of Title 2; Section 2: ~~Boulevard~~Regional Street Design considerations in~~of~~ this Title; and transit's role in serving the area.

B. Motor Vehicle Congestion Analysis ~~for Mixed Use Areas~~

1. Motor Vehicle Level-Of-Service (LOS) is a measurement of ~~the use of a road~~congestion as a share of designed motor vehicle capacity of a road. The following table ~~using~~of Level Of Service Deficiency Thresholds may be incorporated into local comprehensive plans and implementing ordinances to replace current methods of determining motor vehicle congestion on regional facilities, if a city or county determines that this change is needed to permit Title 1, Table 1 capacities ~~in the Central City, Regional Centers, Town Centers, Main Streets and Station Communities~~for the 2040 design types and facilities in the following table:

~~General Congestion Performance Standards (using LOS*)~~Motor Vehicle Level of Service Deficiency Threshold*

	~~Preferred~~	~~Acceptable~~	~~Exceeds~~
~~Mid-Day one hour~~	~~C or better~~	~~D~~	~~E or worse~~
~~Peak two hour~~	~~E/E or better~~	~~F/E~~	~~F/F or worse~~

Location	Mid-Day One-Hour Peak			A.M./P.M. Two-Hour Peak		
	Preferred	Acceptable	Exceeds	Preferred	Acceptable	Exceeds
Central City, Regional Centers, Town Centers, Main Streets and Station Communities	C	E	F	1st hour E 2nd hour E	1st hour F 2nd hour E	1st hour F 2nd hour F
Corridors, Industrial Areas and Intermodal Facilities, Employment Areas and Inner and Outer Neighborhoods	C	D	E	1st hour E 2nd hour D	1st hour E 2nd hour E	1st hour F 2nd hour E
Regional Highway Corridors	identify and evaluate on a case-by-case basis to balance regional mobility and accessibility objectives			identify and evaluate on a case-by-case basis to balance regional mobility and accessibility objectives		

*Level-of-Service is determined by using either the latest edition of the Highway Capacity Manual (Transportation Research Board) or through volume to capacity ratio equivalencies as follows: LOS C = .8 or better; LOS D = .8 to .9; LOS E = .9 to 1.0; and LOS F = greater than 1.0. A copy of the Level of Service Tables from the Highway Capacity Manual is attached as Exhibit A. Regional Highway Corridors are identified in the map attached as Exhibit B.

2. Accessibility. If a ~~congestion standard~~deficiency threshold is exceeded as identified in Table 4.B.1, cities and counties shall evaluate the impact of the congestion on regional accessibility using the best available quantitative or qualitative methods ~~(quantitative or qualitative)~~. If a determination is made by Metro that exceeding the ~~congestion~~deficiency threshold negatively impacts regional accessibility, local jurisdictions shall follow the ~~congestion management~~transportation systems analysis and transportation project analysis procedures identified in 4.C. and 4.D. below.

3. The identified function or the identified capacity of a road may be significantly affected by planning for ~~Central City, Regional Centers, Town Centers, Main Streets and Station Communities~~ 2040 Growth Concept design types. Cities and

counties shall take actions described in Section 4.C. and 4.D. below, including amendment of their transportation plans and implementing ordinances, if necessary ~~to either change or take actions as described in Section 4.C., below~~, to preserve the identified function and identified capacity of the road, ~~if necessary,~~and to retain consistency between allowed land uses and planning for transportation facilities.

~~C. Congestion Management~~ **[Note: Deleted text is incorporated in new 4.C.]**

~~For a city or county to amend their comprehensive plan to add a significant capacity expansion to a regional facility, the following actions shall be applied, unless the capacity expansion is included in the Regional Transportation Plan:~~

~~1. To address Level of Service, the following shall be implemented:~~

~~a. Transportation system management techniques~~
~~b. Corridor or site level transportation demand management techniques~~
~~c. Additional motor vehicle capacity to parallel facilities, including the consideration of a grid pattern consistent with connectivity standards contained in Title 6 of this plan~~
~~d. Transit service improvements to increase ridership~~

~~2. To address preservation of motor vehicle function:~~

~~a. Implement traffic calming~~
~~b. Change the motor vehicle function classification~~

~~3. To address or preserve existing street capacity, implement transportation management strategies (e.g. access management, signal interties, lane channelization)~~

C. Transportation Systems Analysis

The following strategies shall be considered when local transportation system plans (TSPs), multi-modal corridor and sub-area studies, mode specific plans or special studies are developed:

1. regional transportation demand strategies
2. regional transportation system management strategies, including intelligent Transportation Systems (ITS)
3. High Occupancy Vehicle (HOV) strategies
4. transit, bicycle and pedestrian system improvements to improve mode split
5. changes in land use plans consistent with this functional plan, such as mode split policies
6. effects of latent demand from other modes, routes or time of day
7. unintended land use and transportation effects resulting from a proposed action.

~~If~~Upon a demonstration that the above considerations do not adequately and cost-effectively address the problem, a significant ~~-~~capacity improvements may be included in the comprehensive plan.

~~**D. Motor Vehicle Congestion Analysis Outside of Mixed Use Areas**~~

~~Outside of Central City, Regional Centers, Town Centers, Main Streets and Station Communities, and where cities and counties have not elected to use the General Congestion Performance Standards in subsection 4.B of this Title:~~

~~1. The identified function or the identified capacity of a road may be significantly affected by implementation of this functional plan. Cities and counties shall amend their transportation plans and implementing ordinances to change or take actions as described in Section 4.C., below, to preserve the identified function and identified capacity of the facility, if necessary, to retain consistency between allowed land uses and planning for transportation facilities.~~

~~2. The congestion performance standard for designated state highways as identified in the 1990 Oregon Highway Plan shall be the peak and off peak performance criteria in Appendix F of the 1992 Oregon Transportation Plan.~~

~~3. The congestion performance standard for arterials of regional significance identified at Figure 4-2 of Chapter 4 of the 1992 Regional Transportation Plan should be the peak and off peak performance criteria in Chapter 1, Section D of the 1992 Regional Transportation Plan.~~

~~4. Congestion level of service standards are not required for all other roads.~~

~~5. If the congestion performance for a road is exceeded or the identified function or identified capacity is inconsistent with land uses, cities and counties shall apply the congestion management actions identified in 4.C.1-3, above. If these actions do not adequately and cost effectively address the problem, capacity improvements may be included in the comprehensive plan."~~

D. Transportation Project Analysis

The following shall be considered before a city or county acts to amend its comprehensive plan to add a significant capacity expansion to a regional facility:

1. The following actions shall not be applied if a defined capacity expansion with a determination of need, mode, corridor and function is included in either of the following:

   a. 1995 Interim Federal Regional Transportation Plan, or
   b. 1998 Regional Transportation Plan

2. To address level of service, the following actions shall be considered during transportation project development:

   a. transportation system management
   b. corridor or site-level transportation demand management
   c. additional motor vehicle capacity on parallel facilities, including the consideration of a grid pattern consistent with connectivity standards contained in this Title.
   d. transit, bicycle and pedestrian improvements to improve mode split

3. To address preservation of motor vehicle function, the following actions shall be considered during transportation project development:

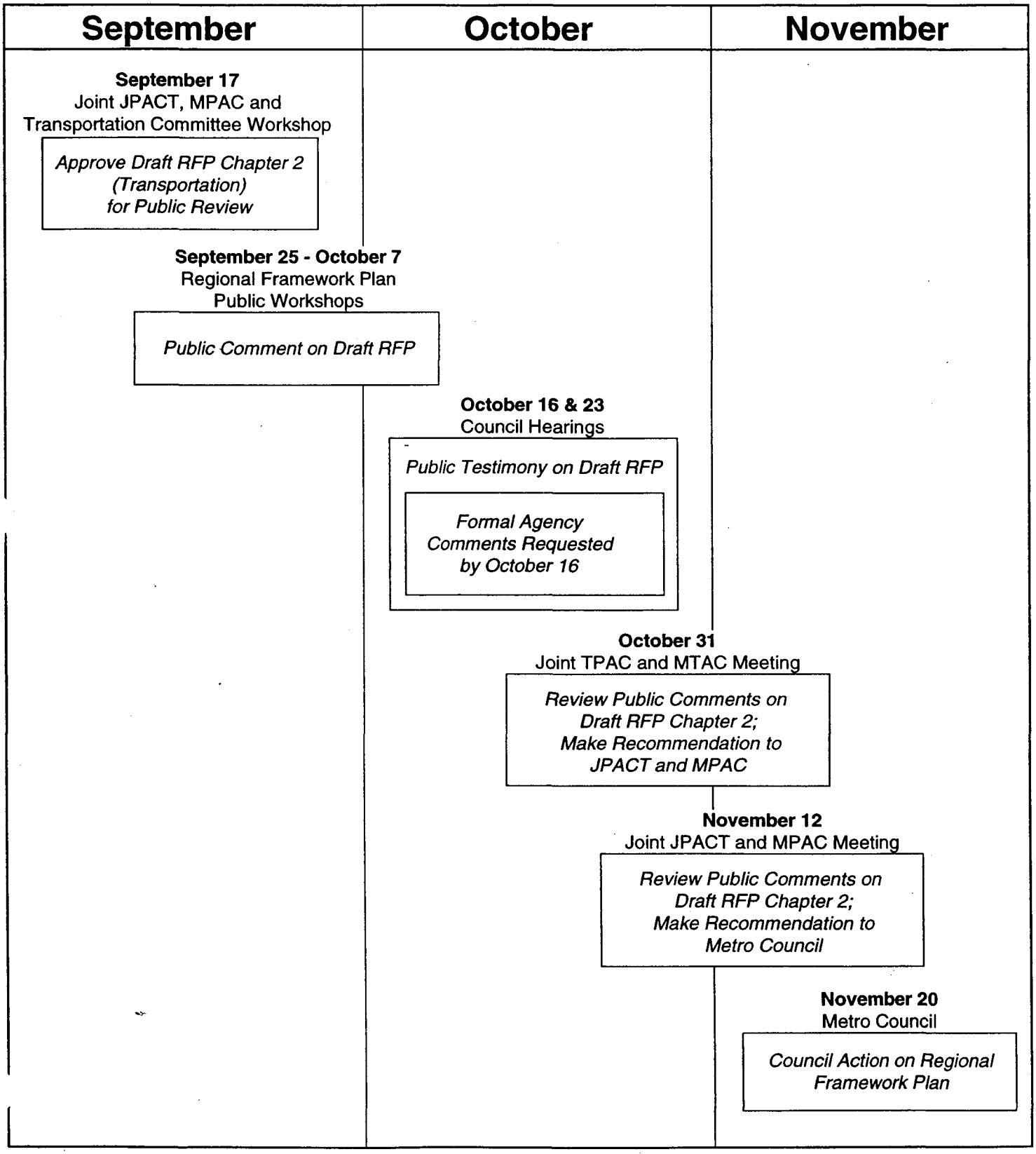
   a. traffic calming
   b. change the motor vehicle functional classification, consistent with the Regional Framework Plan

4. To address or preserve existing street capacity, transportation system management (e.g., access management, signal interties, lane channelization) shall be considered during transportation project development:

5. To address regional street design policies, guidelines contained in "Creating Livable Streets," Street Design Guidelines for 2040" (1997) and other similar resources shall be considered during transportation project development:

METRO

Regional Framework Plan
Fall '97 Public Review & Adoption



9-17-97

2040 On the Move: Transportation Choices

MetroFacts

METRO
Regional Services

600 NE Grand Ave.
Portland, OR
97232-2736

Tel (503) 797-1839
Fax (503) 797-1911

9/29/97

Our ability to get where we want to go during the next twenty years will be shaped by transportation policies in the Regional Framework Plan and the Regional Transportation Plan. Both plans will be considered by the Metro Council in the next six months. The proposed plans place a new emphasis on transportation alternatives for travel to work, shopping and recreation.

This fact sheet describes the purpose of each plan, identifies major issues under discussion and describes how the two documents relate (as well as how they differ).

Regional Framework Plan

The Regional Framework Plan is a comprehensive set of guidelines that integrates land use, transportation, water, parks and open spaces and other important regional issues. The plan is intended to guide Metro's efforts to manage future growth in this region and implement the 2040 Growth Concept. Chapter 2 of the Framework Plan outlines overall transportation policies for our region over the next 50 years. Details of specific transportation policies, objectives and actions over the next 20 years are included in the Regional Transportation Plan.

Major Issues Under Discussion in the Regional Framework Plan

- What level of traffic congestion is acceptable and affordable? (motor vehicle level-of-service)
- Should street design policies that consider the land use and transportation needs of a street be adopted?
- Should increased local street connections be encouraged to relieve traffic congestion on major arterial streets and provide better access to local destinations?
- What role do alternatives such as walking, biking, and public transit play in meeting our transportation needs?

Regional Transportation Plan

The Regional Transportation Plan is a 20-year blueprint for dealing with the greater demands that will be placed on our transportation system as the Portland region grows. The Regional Transportation Plan is being updated to implement the region's 2040 Growth Concept and the policies identified in the Regional Framework Plan.

Chapter 1 of the Regional Transportation Plan repeats the transportation policies of the Regional Framework Plan and adds specific objectives and strategies that will guide local and regional implementation of each policy. The policies will also be used to difine and prioritize specific improvement projects to the regional transportation system for the next 20 years.

Major Issues Under Discussion in the Regional Transportation Plan

- How should regional transportation policies be implemented at the local level?
- How should we prioritize investment of limited funds to meet the needs of motorists, pedestrians, transit riders, bicyclists and commerce over the next 20 years?
- What type of funding strategy should the region adopt to provide additional resources for transportation?
- Which specific transportation improvement projects should be funded with regional dollars?

We encourage you to get involved

With your input Metro will be better able to develop a region-wide strategy that helps us get from here to there, meets the needs of the future and protects the livability we all value. See reverse for ways to get involved, as well as a list of meeting dates and key decision points.

Ways to get involved

- Add your name to our mailing lists to receive meeting notices and other mailings, call Metro's transportation hotline, (503) 797-1900
  Attend public meetings and workshops
- Provide testimony at citizens advisory committee meetings and public hearings
- Review and comment on staff or citizens advisory committee recommendations by mail, email, phone or fax (see below)
- Visit our website: www.metro-region.org
- Get general transportation information from The Oregonian's Inside Line at 225-5555

Regional Framework Plan Opportunities for comment and key decision points

September 25	Open house – Clackamas H.S. Cafeteria, 5:30 - 8 p.m.
September 29	Open house – Aloha H.S. Cafeteria, 5:30 - 8 p.m.
October 4	Open house – Metro Council Chamber, 10 a.m. – 1 p.m.
October 6	Open house – Tualatin H.S. Commons, 5:30 - 8 p.m.
October 7	Open house – Gresham H.S. Cafeteria, 5:30 - 8 p.m.
October 16	Metro Council public hearing – Beaverton City Hall, 5:30 – 7:30 p.m.
October 23	Metro Council public hearing – Metro Council Chamber, 5:30 – 7:30 p.m.
November 1	Metro Council meeting
November 13	Final Metro Council public hearing – Metro Council Chamber (tentative)
November 20	Metro Council meeting – final action on Regional Framework Plan

The Metro Charter requires the Council to adopt the Framework Plan by December 31, 1997. Please call Metro's growth management hotline, (503) 797-1888 to confirm all meeting dates, times and locations.

Regional Transportation Plan Opportunities for comment and key decision points

October 7	Citizens Advisory Committee meeting
November 3	Portland public workshop, Multnomah Arts Center, 5:30 p.m.
November 5	Washington and Clackamas Counties public workshop, Tualatin H.S., 5:30 p.m.
November 6	East Multnomah County public workshop, Gresham Senior Center, 5:30 p.m.
November 8	Portland public workshop, Oregon Convention Center, 9 a.m.
November 12	Clackamas County public workshop, Clackamas Meeting Facilities, 5:30 p.m.
November 13	Washington County public workshop, Hillsboro Senior Center, 5:30 p.m.
November 18	Citizens Advisory Committee meeting
November 26	Transportation Policy Alternatives Committee (TPAC) – final action on draft RTP system
December 2	Citizens Advisory Committee – final action on draft RTP system

Final adoption of the Regional Transportation Plan is expected to occur in April 1998. A final adoption schedule will be available in mid-October, please call the hotline number below to request a copy. Please call Metro's transportation hotline, (503) 797-1900 to confirm all meeting dates, times and locations.

Metro Transportation Department
600 NE Grand Avenue
Portland, OR 97232
Fax: (503) 797-1794
Email: trans@metro-region.org
Transportation hotline: (503) 797-1900
(leave comments, find out about upcoming meetings, add your name to our mailing lists)

MetroMeetings

METRO
Regional Services
Transportation

600 NE Grand Ave.
Portland, OR
97232-2736

Tel (503) 797-1755
Fax (503) 797-1794

cled paper

10/2/97

Discover the choices: transportation workshops

How can we ease traffic congestion?

What level of congestion is acceptable?

How should limited transportation dollars be spent?

What should our transportation priorities be over the next 20 years?

Attend one of Metro's "Discover the Choices" workshops to learn about transportation options and help set priorities for the future. The workshops will provide an opportunity for input on the Regional Transportation Plan update and Traffic Relief Options Study.

What is the Regional Transportation Plan?

The Regional Transportation Plan is a 20-year blueprint to address the increased demand that will be placed on our transportation system as the Portland region grows. The plan establishes transportation policies for all types of travel and includes specific objectives, strategies and projects to guide local and regional implementation of each policy. The plan also comes with cost estimates and alternative funding strategies to meet these costs.

What is the Traffic Relief Options Study?

Traffic congestion is a growing problem in the Portland Metropolitan Region. The Traffic Relief Options Study is evaluating the possibilities of using peak period pricing incentives to manage and reduce traffic congestion. Peak period pricing charges drivers who drive on the most congested roads at rush hour. It could be applied in highly congested locations to save drivers substantial time while relieving the stress of congestion. Peak period pricing is used in many aspects of our lives, such as air travel, long-distance telephone calls and movies. The two-year study is being conducted by Metro, in collaboration with the Oregon Department of Transportation (ODOT) and the Federal Highway Administration.

Please see reverse for more information.

Portland
Monday, November 3
5:30 p.m. registration/ 6 p.m. meeting
Multnomah Arts Center Auditorium
7688 SW Capitol Highway, Portland
bus line 5

South Washington County
Clackamas County
Wednesday, November 5
5:30 p.m. registration/ 6 p.m meeting
Tualatin High School Commons
22300 SW Boones Ferry Road, Tualatin

East Multnomah County
Thursday, November 6
5:30 p.m. registration/ 6 p.m. meeting
Gresham Senior Center
50 NE Eliot, Gresham
bus line 9, 8 blocks from MAX

Portland
Saturday, November 8
9:00 a.m. registration/ 9:30 a.m. meeting
Oregon Convention Center
777 NE M.L. King Jr. Blvd., Portland
bus line 6, MAX

Clackamas County
Wednesday, November 12
5:30 p.m. registration/ 6 p.m. meeting
Clackamas Meeting and Banquet Facilities
(inside Denny's, by the Hampton Inn)
15815 SE 82nd Drive, Clackamas

North Washington County
Thursday, November 13
5:30 p.m. registration/ 6 p.m. meeting
Hillsboro Senior Center
750 SE 8th (at Maple)
Shute Park, Hillsboro
bus line 57

All locations are A.D.A. accessible. For additional transit information call Tri-Met, (503) 238-RIDE. Elderly and disabled persons who are not currently enrolled in Tri-Met's Dial-A-Ride program should contact Tri-Met, (503) 238-RIDE, two to three weeks in advance of the meetings to make transportation arrangements.

What issues are being discussed at the workshops?

During the Regional Transportation plan portion of the workshops, you will have the opportunity to provide input on transportation needs in your area for all types of travel. You will be asked to make suggestions for specific improvements to the regional transportation system and to identify issues that need further study. You will also be asked to prioritize specific improvement projects and needs.

During the Traffic Relief Options Study portion of the workshops, you will be asked to review and evaluate eight options under consideration as possible candidates for peak period pricing. You will have the opportunity to review evaluation criteria and suggest how the revenues should be used.

What is the meeting format?

There will be presentations to all participants followed by small group discussions. Participants will be randomly assigned to tables in groups of 8-10 people. Each table will have a facilitator and a note taker. Facilitators will include RTP Citizens Advisory Committee members, Traffic Relief Options Study Task Force members, and staff from Metro and local jurisdictions. Input will be gathered on maps, worksheets, questionnaires and flip charts. The small groups will report back to the whole group several times.

Registration and assignment to tables will begin at 5:30 p.m. (except on Nov. 8 when it will begin at 9 a.m.). A light meal will be available during this time and informational displays will be posted. **The first presentation will begin promptly at 6 p.m. (9:30 a.m. on Nov. 8). Please be sure to arrive with time to register prior to the presentation.**

How will my input be used?

Input on the Regional Transportation Plan (RTP) will be forwarded to the RTP Citizens Advisory Committee, the Transportation Policy Alternatives Committee (TPAC), the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council. These groups will use your input to finalize a draft preferred system which includes regional transportation improvement projects as well as recommendations for future transportation studies.

Input on the Traffic Relief Options Study will be forwarded to the Traffic Relief Options Study Task Force, the Metro Council and the Oregon Transportation Commission. Following the public meetings, more technical evaluation, and further discussion with community groups, elected officials and others, the Task Force will recommend up to three options for more detailed study next year.

What are future key decision points for the Regional Transportation Plan?

Final adoption of the Regional Transportation Plan is expected to occur in April 1998. A final adoption schedule will be available in mid-October and will be included in the workshop information packet.

What are future key decision points for the Traffic Relief Options Study?

In Spring of 1998 the list of options being studied will be reduced to three or fewer options. The final report and recommendation as to whether or not to pursue a demonstration project will be presented to the Metro Council and the Oregon Transportation Commission in the fall of 1998.

How can I get information in advance?

Advance background information, including a workshop agenda, will be available on October 20, 1997. Call Metro's transportation hotline, (503) 797-1900, T.D.D. (503) 797-1804, and select the option for the Discover the Choices Transportation Workshops. Leave your name and address to have an advance packet mailed to you.

Who can I contact for more information?

Contact Cheryl Hart, Metro Transportation Department, (503) 797-1863, T.D.D. (503) 797-1804, for additional information.

FY 98-99 Transportation Department - Budget Options

I. Schedule

- November 17 - Due to Executive Officer
- February 12 - Due to Metro Council
- February - JPACT adopt Unified Work Program

II. Base Work Program

RTP Update - wrap-up, adoption, submit to LCDC w/ findings, complete air quality conformity, publish RTP and public release version
RTP input to local transportation system plans
STIP/MTIP update
Financing the RTP
Willamette River Crossing completion
Hwy 217 Corridor study initiation
Commuter Rail assessment
Congestion Pricing Study completion and follow-up
South/North Final EIS
South/North extension study to Oregon City
TOD Land Acquisition Program
Collection of base data on traffic volumes, transit ridership and fares, parking and auto operating costs
Model development/Refinement - Continue improvement to travel forecasting models, including better consideration of trip chaining, time of day, improved truck models (larger than 26,000 pounds), inclusion of commuter rail and HOV sensitivity, expansion of geographic coverage to include North Willamette Valley
Travel forecasting services to Tri-Met, ODOT, cities, counties, Port of Portland

III. Work Program Options (need input on priorities)

Urban Reserve Planning for Transportation
RTP Refinement Plans for unresolved issues
I-5 North/Columbia River Strategic Plan
I-205 South Corridor Study
High Capacity System Plan
HOV System Plan
Freight Planning
Implementation of Non-SOV Targets
Establishment of Benchmark Program
Evaluation of Speed as a substitute for Level-of-Service
Public attitude research - what do the people want/value
Public Education program on RTP policy direction/Schools program
Increased dissemination of travel related data
Re-tool MILT bus (Mobile Information on Long-Range Transportation)
Develop truck model for trucks smaller than 26,000 pounds

Metro Transportation Funding Criteria

I. Current project selection criteria:

- Increase in non-auto mode share
- Reduction in VMT
- Cost/VMT reduced
- Congestion
- Cost/Vehicle Hour of Delay reduced
- Safety problem
- Pavement condition
- 2040:
    - priority for Central City, Regional Centers, Industrial Areas
    - increase density
    - improve street connectivity
    - incorporate multi-modal street design features

II. Potential project selection criteria

- link to affordable housing (Metro Council)
- provide incentives for projects that implement 2040 street design guidelines (JPACT)
- establish "mode share" as the key criteria of transportation effectiveness in funding (JPACT)
- set aside 8% of regional flex. funds for a bike to school program (BTA)
- increase the priority of moving freight (Port of Portland)

COMMITTEE MEETING TITLE JPACT

DATE 10-9-97

NAME	AFFILIATION
Bob Stacey	Tri-Met
TANYA COLLIER	MULTNOMAH COUNTY
Ted Spence	ODOT
Andy Cotugno	Metro
ED WASHINGTON	MERTRO
Charlie Hales	Portland
Roy Rogers	Wash. Co.
Dan Wagner	WS DOT
Lisa Naito	Metro
[illegible]	Clackamas Co.
Jim Knight	E. County 4-Cities
Claudia Kirkpatrick	ODOT
Phil Selinger	Tri-Met
Jon Lattingville	RTC (alt. for City of Vancouver)
Craig Lomnicki	Cities of Clackamas Co
STEVE DOTTERRER	CITY OF PORTLAND STAFF
GB ARRINGTON	TRI-MET
Richard Brandman	Metro
Bill Ciz	ODOT
Mary Legry	WSDOT
[illegible]	CLACKAMAS COUNTY
John Reid	Clackamas County
Jon Rosenberger	Washington County

COMMITTEE MEETING TITLE VPACT

DATE 10-9-97

NAME	AFFILIATION
✓ Mark Lear	City of Portland
✓ Bernie Bottomly	Tri-Met
✓ Susan Lee	Mult. Co.
✓ Karl Rohde	JPACT Alt C³
✓ Peter T Fry	Central Eastside Industrial Council, Portland
✓ Meeky Blizzad	Sensible Transp Options for People
✓ Scott L Rice	Cornelius City Council
✓ Paul Silver	City of Wilsonville
✓ Rob Drake	Cities of Wash. Co.
✓ Kathy Busse	Mult. Co.
✓ Dave Lohman	Port
✓ Susan McLain	Metro Council