## Jackson County Transportation System Plan

Ordinance No. 2005-3 Adopted March 16, 2005

## Jackson County Transportation System Plan

Jackson County, Oregon

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Project No. 4137/June 2004



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### **Preface**

This project was funded by the Oregon Department of Transportation and Jackson County. This document does not necessarily reflect the views or policies of the State of Oregon.

This Transportation System Plan (TSP) was developed in collaboration with Jackson County Roads, Parks and Planning Department, Jackson County Planning Commission, Technical Advisory Committee (TAC), and the Consultant Team identified below. In addition, the Rogue Valley Council of Governments conducted the public involvement process supporting the TSP with the help of the Jackson County Urban Renewal Agency.

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The Technical Advisory Committee members and Jackson County Planning Commission devoted a substantial amount of time and effort to the development of the Jackson County Transportation System Plan (TSP), and their participation was instrumental in the development of the recommendations that are presented in this report. The Consultant Team and Management Team believe that Jackson County's future transportation system will be better because of their commitment.

#### **Consultant Team:**

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### **Executive Summary**

Jackson County, in conjunction with the Oregon Department of Transportation (ODOT), initiated a study of the county's transportation system in summer 2001. This transportation system plan (TSP) will guide the management and development of transportation facilities within Jackson County, incorporating the county's vision, while remaining consistent with state, regional, and local plans. Sections 2 through 5 of this plan will include the necessary elements to replace the existing transportation element of the Jackson County Comprehensive Plan. Section 7 of this plan identifies Land Development Ordinance updates to implement the TSP and comply with current state land use and transportation rules. In addition, this plan provides ODOT, Rogue Valley Council of Governments (RVCOG), and other agencies with recommendations that can be incorporated into their respective planning efforts.

The contents of this TSP were guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR). These laws and rules require that counties develop the following:

- A road plan for a network of arterial and collector streets;
- A public transit plan;
- A bicycle and pedestrian plan;
- An air, rail, water, and pipeline plan; and
- Policies and ordinances for implementing the transportation system plan.

Although not required by the TPR, this TSP includes a transportation financing plan to help the County identify future unfunded transportation needs and potential revenue sources. The TPR requires that alternative travel modes be given equal consideration with the automobile, and that reasonable effort be applied to the development and enhancement of the alternative modes in providing the future transportation system.

A major component of the TSP planning process was coordination. In addition to addressing the policies and requirements outlined in the TPR, Section 0015 of the rule requires Jackson County to adopt the Regional Transportation Plan (RTP) as part of the TSP adoption process. Thus, the planning process strongly focused on coordinating with the Rogue Valley Council of Government (RVCOG) to ensure consistency with the RTP. The RTP currently covers the urban core of Jackson County, including Medford, Central Point, the White City area and Phoenix. The Metropolitan Planning Organization (MPO) boundary was recently expanded to include the area from Ashland to Eagle Point. The current RTP is being updated to reflect the recent MPO expansion. Anticipating changes to the RTP that will result from this process was one of the major challenges for the County's TSP.

#### **TSP PROCESS**

The Jackson County TSP was developed through a process that (1) reviewed and updated the current transportation policies, (2) identified transportation needs, (3) developed and analyzed potential projects addressing those needs and, (4) developed a finance plan that includes the projects that best

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address the county's needs within the limits of the funding expected to be available during the next 20 years. The following steps were involved in this process:

- Reviewing state and regional plans and policies that the Jackson County TSP must comply with, and reviewing local cities' plans so that the plan is well coordinated with city plans.
- Reconciling the results from the plan review with existing policies in the Transportation Element to develop a recommended set of updated policies.
- Facilitating public open houses to provide project information to, and gather feedback from, the public at key points during the TSP development process, establishing project advisory committees, and developing transportation plan goals and objectives.
- Evaluating existing transportation needs.
- Evaluating future transportation needs in accordance with OAR 660-12-0030. The needs analysis identified where deficiencies are likely to occur if growth occurs as expected, but no transportation improvements are made, other than those already funded.
- Developing, modeling, and analyzing alternative transportation improvement packages intended to address Jackson County's future transportation needs.
- Estimating the revenue available for transportation capital projects through the year 2023, assuming no increase from current funding levels.
- Developing a prioritized, financially constrained, consultant-recommended alternative that includes projects that meet the project's goals and objectives, and that best address future transportation needs within the funding available.
- Modifying the consultant-recommended alternative, based on staff, public, and advisory committee input, to develop the preferred alternative that forms the heart of this TSP.
- Developing a list of unfunded priority projects, in the event that additional transportation funding becomes available in the future.
- Recommending ordinance updates for implementing the TSP.
- Compiling the results of this work into this TSP document, for review and adoption by the Jackson County Board of Commissioners.

#### TRANSPORTATION SYSTEM PLAN

Sections 2 through 5 of this plan will replace the existing transportation element of the County's comprehensive plan. The other sections of the TSP and accompanying background document will be incorporated by reference into the Comprehensive Plan. In addition, the road standards adopted as part of the TSP process are not identical to the road standards in Chapter 1024 of the codified ordinances of Jackson County, so an amendment to the Codified Ordinances will accompany adoption of the TSP. The preferred alternative that forms the basis of this plan balances Jackson County's transportation needs with available resources. Projects are prioritized based on need and on when funding is expected to be available.

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The TSP chapters include the following elements:

- Transportation goals and policies;
- A street system plan, including functional classifications and representative street sections;
- Pedestrian and bicycle plans that identify the locations of future facilities;
- A transit plan that identifies major transit stops and streets that may have future transit service, potential locations for implementing traffic signal priority for buses, and transitsupportive programs;
- Pipeline, air, rail, marine, and freight plans; and
- An implementation plan, including a prioritized, financially constrained transportation improvement program, and a list of other priority projects that could be funded if new sources of transportation revenue can be developed.

The remainder of this report summarizes the background information used to develop the TSP. Details of the TSP development process are documented in a series of technical memoranda, which are included in a companion *Background Document*.

Section 1

Introduction

### Introduction

#### 1.1 OVERVIEW

State of Oregon planning rules require that the County's Transportation System Plan (TSP) be based on the current comprehensive plan land use map. The TSP must provide a transportation system that accommodates the expected 20-year growth in population and employment in accordance with the County's land use plan. The land use plan in effect in 2002 was used for TSP analysis.

The contents of this TSP are guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR). These laws and rules require that jurisdictions develop the following:

- A road plan for a network of arterial and collector streets;
- A public transit plan;
- A bicycle and pedestrian plan;
- An air, rail, water, and pipeline plan; and
- Policies and ordinances for implementing the transportation system plan.

Although not required by the TPR, this TSP includes a transportation financing plan to help the County identify future unfunded transportation needs and potential revenue sources. The TPR requires that alternative travel modes be given equal consideration with the automobile, and that reasonable effort be applied to the development and enhancement of the alternative modes in providing the future transportation system. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, employment, and institutional areas. It is further required that counties coordinate their respective plans with applicable city, regional, and state transportation plans.

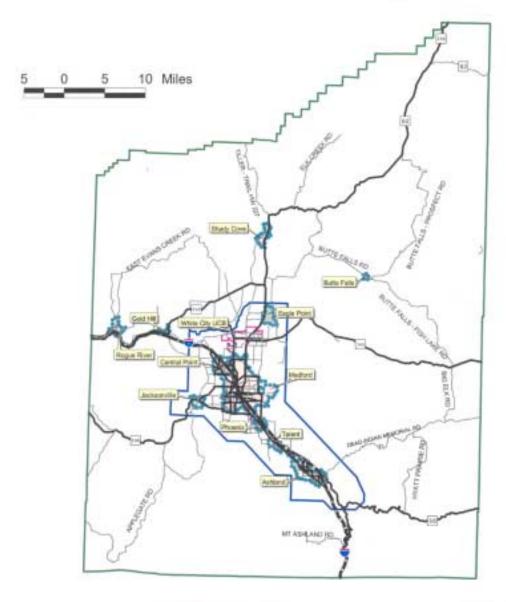
#### 1.2 STUDY AREA AND SCOPE

Figure 1-1 shows a map of Jackson County, including the urban growth boundaries (UGB) of each incorporated city and the urban containment boundaries (UCB). The primary study area for the Jackson County TSP consists of all areas of Jackson County located outside the UGBs of incorporated cities. The County's TSP generally defers to the applicable city TSP for County and State facilities within UGBs and to the RTP for regionally significant facilities in the MPO. However, significant issues identified in local TSPs or the RTP that affect State and County facilities inside UGBs are also shown because they influence the function of the overall County transportation system.

Based on the requirements of the Transportation Planning Rule, the study of County roadways and intersections is generally limited to those with the highest classifications – collectors and arterials – as well as state highways. Local street issues, such as street connectivity and design standards, were analyzed for general consistency with the TPR and the goals and policies.

Figure 1-1 Study Area Map

# **Jackson County**





## Figure 1-2

#### 1.3 PUBLIC INVOLVEMENT AND PLAN COORDINATION

The Technical Advisory Committee (TAC) guided the initial planning process for the TSP. The TAC was made up of representatives from relevant state and federal agencies, transportation providers, local jurisdictions, RVCOG, and a representative from Jackson County Fire District #3. A full list of the TAC is provided in the plan's preface. The TAC was responsible for reviewing the technical aspects of the TSP, and evaluating the TSP from a policy perspective. This work included reviewing the TSP goals and policies, as well as the transportation evaluation criteria.

Public involvement for the TSP was addressed in several ways. At the beginning of the process, several 'open houses' were held in an outreach effort to inform citizens and businesses in Jackson County of the TSP project goals and process, obtain information from the community on transportation issues and concerns, and incorporate community feedback into the TSP analysis. RVCOG led the 'open houses' and also prepared and distributed newsletters at key points during the development of the TSP. Once a draft plan was developed, a Citizen Input Committee was established to provide staff with a broad spectrum of opinions on the draft. The Citizen Input Committee included members from a variety of backgrounds and interests. Most of the members had at least some basic understanding of transportation planning. Their ideas and concerns were critical in addressing major elements of the plan. Also, the County is very lucky to have a standing Bike Committee. The Bike Committee provided a focused review of the bicycle and pedestrian aspects of the TSP throughout the process. Public work sessions with the Planning Commission were scheduled to provide an opportunity for the public to have access to the policy makers before official public hearings were conducted to provide a more relaxed atmosphere for the public to voice concerns with the plan. Finally, public hearings must be held before both the Planning Commission and the Board of Commissioners for adoption.

#### 1.4 TSP ORGANIZATION AND METHODOLOGY

The development of the Jackson County Transportation System Plan began with a review of the local, regional, and statewide plans and policies that guide land use and transportation planning in Jackson County. The reviewed documents are listed and briefly summarized in **Section 2** of this plan. Goals and policies for the TSP, as developed by the TAC, and Jackson County planning staff, and Jackson County Planning Commission are presented in **Section 4**.

A technical analysis of the existing transportation facilities was performed, which allowed for an objective assessment of the system's existing physical characteristics, operational performance, safety, and general function. Upon completion of the existing conditions analysis, the focus of the project shifted to forecasting future travel demand and the corresponding long-term future transportation system needs. The development of long-term (year 2023) transportation system forecasts was based on population growth forecasts for Jackson County, including parallel work to update White City's land use plan. There was extensive coordination between Kittelson and Associates, Jackson County staff, RVCOG, and ODOT's Transportation Planning Analysis Unit (TPAU) in developing the forecast traffic conditions. The County relied primarily on the MPO regional travel demand model for determination of future travel demand on regionally significant facilities within the MPO. Generalized trend analysis was required for some portions of the MPO area because the regional travel demand model was developed when the MPO boundary was much smaller than its current configuration. Outside the MPO boundary, a generalized trend method was used to project future traffic volumes. The future conditions analysis mainly focused on auto traffic because increases in traffic volumes are most likely to cause facility deficiencies. For example, if no sidewalk is present in an urban area then this is an existing deficiency. However, once a 5-foot wide

sidewalk was built it would be unlikely that pedestrian volumes would be so high in 20 years that the sidewalk would need to be widened.

While forecast traffic volumes are not exact, they provide an estimate to evaluate how the existing system will function in 20 years. Those numbers were used to identify locations where existing system capacity would be exceeded by the estimated future volume. The combination of the existing and future conditions analyses revealed the transportation deficiencies to be addressed by the TSP. Project alternatives were developed to address these needs. Based on comments received from County staff, ODOT, Jackson County residents, and the TAC, a preferred plan was developed that reflected a consensus on which elements should be incorporated into the County's long-term transportation system. The analyses of existing and future conditions and project alternatives are summarized in **Section 3** of this report.

Having identified a preferred set of alternatives, the next phase of the planning process involved presenting and refining the individual elements of the TSP through a series of decisions and recommendations. The recommendations identified in **Section 5**, Transportation System Plan, include a Roadway System Plan, a Pedestrian System Plan, a Bicycle System Plan, and a Transit Plan, as well as plans for other transportation modes serving Jackson County.

**Section 6,** Transportation Financing Plan, provides an analysis and summary of the alternative funding sources available to pay for the identified transportation system improvements. The recommended code modifications are presented in **Section 7,** Transportation Planning Rule Compliance. This section lists the requirements of the Oregon Transportation Planning Rule (OAR 660 Division 12) and identifies land development ordinance updates for TPR compliance.

Finally, **Section 8**, Glossary of Terms and Acronyms provides list of the terms and acronyms used in the document, along with a definition.

The detailed technical memoranda that were developed during the TSP process that support each of the TSP sections are provided in a companion *Background Document*.

### Plan and Policy Review

#### 2.1 INTRODUCTION

This section summarizes the plans and policies at the state, regional, and local levels that directly impact transportation planning in Jackson County. Although each document reviewed contains many policies, only the most pertinent policies and information are summarized here. This review provides a policy framework for the Jackson County TSP process. A more detailed discussion of the plan and policy review is provided in Technical Memorandum #2, which is included in the TSP's *Background Document*.

#### 2.2 DOCUMENTS REVIEWED

Several jurisdictions own, manage, and/or operate the transportation facilities serving Jackson County. The Oregon Department of Transportation (ODOT), which has jurisdiction over the state highway system, has developed statewide plans for specific transportation modes, a statewide transportation improvement program, and specific area studies. The Rogue Valley Council of Governments (RVCOG) is the Metropolitan Planning Organization responsible for regional planning and allocation of federal transportation funds in the Medford-Ashland urban area. The Rogue Valley Transportation District (RVTD) is the major public transportation provider. Jackson County has developed a large number of relevant planning documents, including the existing comprehensive plan and White City Unincorporated Community Plan. Transportation plans for individual cities were also reviewed.

The Jackson County TSP was developed to be consistent with the Oregon Transportation Plan and the requirements of the Transportation Planning Rule. The plan was developed to be consistent with the RTP and cities' plan policies. The projects in the RTP and in cities' plans were analyzed to identify a list of projects that are already planned to address needs identified in the County plan, and to identify any project inconsistencies that will need to be reconciled among the plans. The TSP is a living document and future changes to these plans may require amendments to the County TSP. The following sections list the major documents reviewed during the development of the TSP.

#### State/ODOT

- Transportation Planning Rule
- Oregon Transportation Plan
- 1999 Oregon Highway Plan
- 2004-2007 draft Statewide Transportation Improvement Program
- Draft 2001 Oregon Rail Plan
- South Medford Interchange project report
- Executive Order No. EO-00-07, Development of a State Strategy Promoting Sustainability in Internal State Government Operations
- Executive Order No. EO-00-23, Use of State Resources to Encourage the Development of Quality Communities
- ODOT Access Management rules (OAR 734-051)
- Oregon Bicycle and Pedestrian Plan

- Oregon Aviation Plan
- Freight Moves the Oregon Economy

#### **RVCOG**

- 2001-2023 Regional Transportation Plan
- Highway 62 Corridor Solutions Project North Medford Interchange Draft Environmental Assessment
- Draft Report on Rural & Community Transportation Options (The Job Council Project)
- Southern Oregon Commuter Rail Study
- Crater Lake Highway Transportation and Land Use Study
- Regional Freight Study

#### **RVTD**

• Transit Oriented Design (TOD) and Transit Corridor Development Strategies for the Rogue Valley Transportation District – Final Report

#### **Jackson County**

- Jackson County Comprehensive Plan
- Jackson County Land Development Ordinance
- Jackson County Road System Plan
- Jackson County Road Improvement Projects
- Jackson County Standards & Specifications for County Roads
- Rogue Valley International-Medford Airport Master Plan
- Rogue Valley International-Medford Airport Environmental Assessment
- Jackson County Bicycle Master Plan
- Bear Creek Greenway Plan
- Old Stage Road Corridor Management Plan
- Urban Unincorporated Community Plan for White City, Oregon, Phase 1
- Urban Growth Boundary Management Agreements

#### Cities

- City of Ashland Comprehensive Plan, Transportation Element
- City of Ashland Street Standards
- City of Ashland Transportation System Plan
- City of Central Point Transportation System Plan
- City of Jacksonville Transportation System Plan
- City of Medford Transportation System Plan
- City of Phoenix Comprehensive Plan Transportation Element

- City of Rogue River Transportation System Plan
- City of Shady Cove Transportation Element
- City of Talent Transportation System Plan

#### 2.3 SUMMARY OF POLICY AND PLAN REVIEW

The documents reviewed for this project were relevant to the TSP process in varying degrees. Some of the key documents and elements from this review are described below.

In April 1991, the Land Conservation and Development Commission (LCDC), with the concurrence of ODOT, adopted the **Transportation Planning Rule** (TPR), OAR 660 Division 12. The TPR requires all counties to prepare and adopt a TSP. The TPR identifies specific requirements for the TSP. Therefore, review of and compliance with the TPR are detailed in the findings supporting adoption of the Jackson County TSP.

The **Oregon Transportation Plan** is a policy document developed by ODOT in response to federal and state mandates for planning the future of Oregon's transportation system. It recognizes the need to integrate all modes of transportation and encourages use of the mode that is the most appropriate for each type of travel. The Plan defines goals, policies and actions for the state for a 40-year period. The Plan's System Element identifies a coordinated multimodal transportation system, to be developed over a 20-year period, to implement the Plan's goals and policies.

The OHP outlines policies and strategies to guide the Highway Division's operating and fiscal activities. The Oregon Access Management Rules (OAR 734-051) govern the issuance of permits for public and private accesses onto state highways. The rules affect all roadways under Oregon state jurisdiction within Jackson County. In addition, for consistency, local access management rules should be updated to be consistent with the state rules in the vicinity of intersections and interchanges with state highways. The rules promote the protection of emerging development areas, rather than the retrofit of existing built-up roadways, and include spacing standards for the different types of state highways. The access management rules also include provisions for commercial centers, urban business areas, and special transportation areas discussed in the OHP.

The **Jackson County Comprehensive Plan** contains a Transportation Element that addresses policy guidance for the multimodal transportation needs in the county for the next 20-25 years. The Transportation Element provides findings, policies and implementation measures intended to maintain and improve the County's transportation system. According to the Comprehensive Plan, the transportation issues facing Jackson County are those of a small metropolitan area serving a larger, more rural region, such as the required travel distance between trip generators in the County. This TSP will update the goals and policies in the Transportation Element.

The **Jackson County Road System Plan** includes sections describing the plan's purpose and goals; background information on roads in Jackson County; road conditions, inventories, and functional classifications; road maintenance and improvement strategies; modernization needs; funding sources; and a capital improvements plan.

The **Statewide Transportation Improvement Program** identifies the transportation projects that the state will fund over a four-year program. The program is updated every two years. The 2000-2003 STIP identified 54 separate projects within Jackson County. The projects include roadway and transit projects, as well as funding for a variety of ongoing state, regional, and local programs. Additional

small projects within Jackson County could be funded through one of these programs, although they would not be specifically called out in the STIP. The next update of the STIP, 2006-2009, is still in draft form.

Regional Transportation Plan Update 2000-2020 (RTP) and, later, the 2001-2023 Regional Transportation Plan (adopted April 2002), provide multimodal transportation improvements planned to meet anticipated 20-year transportation needs within the Greater Medford-Ashland metropolitan area. The RTP examines the expected population and employment growth for the planning area and how different modes of transportation should function together for an efficient future transportation system. The RTP serves as the regional transportation system plan required by the Transportation Planning Rule and Federal law. The RTP is relevant for the Rogue Valley Metropolitan Organization planning area, which was recently expanded to include the cities of Ashland, Jacksonville, Eagle Point, and Talent, and surrounding portions of unincorporated Jackson County. The RTP also adopted seven alternative measures to meet the state's TPR goal for reduced reliance on the automobile. The alternative measures were acknowledged by LCDC to meet this goal. All the measures are applicable in White City. Three of the measures are widely applicable to the County's TSP, two are related to increases in bicycle and pedestrian facilities. The other essentially commits the MPO, and thereby the County proportionally, to spending specified amounts of MPO funds on alternative transportation.

The **Oregon Bicycle and Pedestrian Plan** provides guidance to local jurisdictions for the development of safe, connected bicycle and pedestrian systems. The plan includes two major sections: policies and implementation strategies and design, maintenance, and safety information. This document was used to help develop criteria and general guidelines for bicycle and pedestrian facilities for the Jackson County TSP. The **Jackson County Bicycle Master Plan** identified local bicycle needs and planned projects. The TSP updates the Jackson County Bicycle Master Plan and will replace it.

The **Oregon Aviation Plan** identifies a primary state aviation system and system needs. The plan recommends policies to guide the state in protecting, maintaining, and developing the airport system. The **Rogue Valley International-Medford Airport Master Plan** more specifically addresses the primary public aviation issues in Jackson County, including an outline for future development and details of an airport layout plan.

The **Draft 2001 Oregon Rail Plan** addresses both freight and passenger rail transportation. The Plan's freight element has four major purposes: (1) describe Oregon's freight rail system in terms of the carriers and the individual properties that make up the state railroad system; (2) describe the commodities transported by rail in Oregon; (3) identify funding needs and potential funding sources for railroads in Oregon; and (4) assess what shippers want from rail service in Oregon.

The stated purpose of **Freight Moves the Oregon Economy** is to demonstrate the importance of freight to the Oregon economy. It identifies current and future freight mobility needs. The plan discusses the relationships between freight movement, the economy, and transportation planning. The **Regional Freight Study** conducted by RVCOG identifies concerns and potential solutions for freight movement in Jackson County.

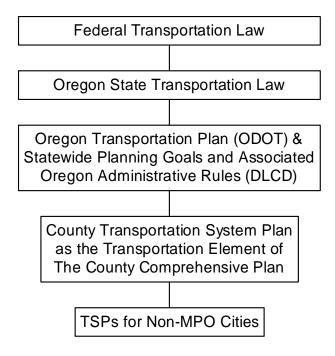
The **Southern Oregon Commuter Rail Study** was a joint study conducted by RVCOG, RVTD, and ODOT's Rail Division that examined the feasibility of commuter rail service along the existing CORP rail corridor between Grants Pass and Ashland.

The **Urban Unincorporated Community Plan for White City (Phase 1)** provides guidance on White City's goals and objectives, and detailed specific transportation and land development issues. The Community Plan's Transportation section addresses roadway needs, urban renewal projects, public transportation, bicycle and pedestrian travel, rail transportation, and air transportation. This information was incorporated into the sections of the TSP related to White City. This TSP was also developed in coordination with land use changes in White City to allow for urban residential densities east of Highway 62. The land use changes comprised most of the Phase 2 of the planning process in White City. The final component of the Phase 2 planning process will be adoption of TSP for White City.

Figure 2-1 depicts the generalized relationship between the County's Transportation System Plan and other major plans and applicable laws.

### Figure 2-1 Plan Document Relationships

#### Outside the MPO



#### Inside the MPO



#### 2.4 ONGOING PLANNING PROCESSES

There are at least three major ongoing planning processes that could have significant impacts on the the Jackson County TSP. While the outcome of these planning processes is undetermined at this time, the development of this TSP has attempted to anticipate the future planning implications that may result from these planning processes.

The broadest and largest of the ongoing planning projects is Regional Problem Solving (RPS). The County has been participating in RPS for several years. The RPS process is seeking to take advantage of a statute that provides for some regional flexibility in application of the State of Oregon land use rules, provided the plan will meet the Statewide Planning Goals and all statutory requirements. Much of the process to date has focused on city growth and identifying future urbanizable growth areas. The planning horizon for RPS extends far beyond the planning horizon of this TSP. Some of the growth proposals that have been considered in RPS could have significant transportation impacts at full development, but these impacts would generally be at or beyond the planning horizon of the TSP. The Jackson County TSP includes a policy that would allow for long-term preservation of transportation corridors. This policy may be helpful in addressing transportation issues resulting from RPS. If the land-use component of RPS is completed and the process is extended to identify critical future transportation system corridors, then at least one and possibly several updates to the Jackson County TSP may be required.

The next major planning project is the update to the RTP for 2005. The MPO was almost doubled in geographic area in 2003. Updates to the regional travel demand model and the RTP are being initiated to address the expansion. The County's TSP policies address RTP coordination. The County's TSP policies are well coordinated with the RTP, but the County TSP process has identified some projects that are not currently in the RTP. These projects will be evaluated during the update process. Amendments to the County TSP will be required if these projects are not included in the 2005 RTP update.

The third major planning project is the proposed 'Highway 62 Expressway'. This project would build a major new expressway along the old Medco Haul road. The City of Medford has completed their TSP and this facility is included on their functional classification map. Most of the planning focus on the facility has addressed what would happen to the existing Highway 62 and how the expressway would work within the City of Medford, up to Vilas Road. However, only cursory planning work has been done on an extension north. Thus, the TSP includes policies and implementation strategies to address future planning of this facility.

## Section 3

### Technical Background and Needs Analysis

#### 3.1 INTRODUCTION

Development of the Jackson County Transportation System Plan (TSP) began with an assessment of current and forecast transportation system conditions. Current facilities for all transportation modes were inventoried and analyzed to identify any existing system deficiencies. This was followed by an analysis of anticipated future conditions. A future conditions analysis was conducted to approximate year 2023 conditions, based on population estimates for the area. Relevant transportation and land use projects were incorporated into the analysis to estimate future conditions, identify future transportation issues, and evaluate potential mitigations. Details of the technical analysis and project alternatives are provided in the *Background Document* that accompanies this plan. The key findings are summarized below for each transportation mode.

#### 3.2 ROAD SYSTEM

Roadways serve the largest share of trips in Jackson County, supporting many of the modes discussed in previous sections of this chapter. Motor vehicles, bicycles, pedestrians, transit, and freight transportation all rely on roadways to some degree. Roadways also provide auto, truck, bicycle, pedestrian, and transit access to air and rail facilities.

The public roadway system within Jackson County is primarily owned and maintained by the following agencies or jurisdictions:

- The **U.S. Forest Service** owns approximately 2,500 miles of roadway in the Rogue River National Forest, most of which is located within Jackson County. Small portions of the Umpqua and Klamath National Forest roads are also located in Jackson County.
- The **Bureau of Land Management** owns approximately 2,500 miles of road in the County.
- The **Oregon Department of Transportation** owns 306 miles of roadway within the County, including some of those most heavily traveled.
- **Jackson County** owns 1,105 miles of roadway, including some roadways within incorporated cities. Most of the County's higher order roads provide access to rural properties and recreation and tourist destinations, make connections to local roads, and serve as market roads for agriculture, forestry, and mining.
- Local **cities** own most of the remaining public roadways.

#### State Highways

State highways that serve Jackson County are listed below:

- Interstate 5;
- Crater Lake Highway (Highway 62);
- Rogue River, Rogue Valley, and Siskiyou Highways (Highway 99);
- Lake of the Woods Highway (Highway 140);
- Jacksonville Highway (Highway 238);
- Sams Valley Highway (Highway 234);

- Tiller-Trail Highway (Highway 227);
- Green Springs Highway (Highway 66); and
- Diamond Lake Highway (Highway 230).

#### **Functional Classification**

A roadway's *functional classification* determines its intended purpose, the amount and kind of traffic (local or through) it is expected to carry, and its design standards. The following functional classifications are defined in the County's existing Road System Plan:

- **Arterials** provide the greatest mobility at the highest speeds and generally the shortest distances for through traffic. There is little or no access to local property on an arterial.
- Collectors provide both for the mobility of through traffic and for land access. Collectors provide essential connections between arterials and local streets.
- Local roads and streets are primarily for access to land rather than mobility.

Jackson County does not currently have a universally applied functional classification for land use actions and capital projects. The list of arterials, collectors, and local roads incorporated in the Transportation Element of the Jackson County Comprehensive Plan is different from the one provided in the Road System Plan. The Road System Plan's functional classifications was used as the starting point for this TSP's functional classifications. Chapter 5 describes in detail the functional classifications for the County roadways and will replace all previous functional classification systems for land use actions and capital projects.

#### Connectivity and Circulation

The City of Jacksonville's Transportation System Plan identifies the need for an alternative connection for through traffic on Highway 238. This connection has been considered for over 40 years with both a northerly and southerly route analyzed, along with multiple internal options analyzed through the City's TSP. Either alignment would require crossing resource land, although in different proportions, outside the acknowledged urban growth boundary. Jacksonville's TSP finds that the alternative connection is needed to address both livability and capacity issues. In reviewing Jacksonville's TSP for plan coordination, Jackson County evaluated both of these needs. Traffic volumes have not increased at the rate presumed in the original Jacksonville TSP traffic analysis. This traffic analysis was performed in 1994, therefore an updated City analysis is warranted. The second need identified in Jacksonville's TSP relates to livability. Downtown Jacksonville is a unique place, not just in Jackson County, but in the entire United States. It is nationally recognized as Oregon's, "most extensive and complete example of late 19<sup>th</sup> century inland commercial and mining community" (National Park Service). It is flourishing in the 21<sup>st</sup> century; the historic nature of downtown Jacksonville has supported the development of a specific cluster of economic activities. Downtown Jacksonville attracts many high-end retail establishments. It is a regional entertainment destination during the summer months. It also has many fine restaurants. Downtown Jacksonville is essential to the City's overall livability in an important way. Jacksonville's TSP identifies many ways in which through traffic is detrimental to the unique character of the City. The previous Jackson County Comprehensive Plan Transportation Element recognized the need for a regional transportation route around the City of Jacksonville. In 2004, the Oregon Department of Transportation formally recognized downtown Jacksonville as one of the few Special Transportation Areas (STA) in the State. The livability needs identified in Jacksonville's TSP remain unmet at this time.

A planning process to intensify residential uses east of Highway 62 in White City was recently completed. Since the TSP process and the White City land-use planning processes were simultaneous, the TSP examined regional circulation and connectivity to and from White City. The existing regional transportation demand model accounted for most of the growth in the residential portion of White City that would be expected to result by 2023, and the volumes projected from the regional model indicated high travel demand on Highway 62 between White City and Medford. Thus, the regional travel demand model indicated the need for at least one alternative connection between White City and Medford.

The TSP, along with the Regional Freight study conducted by RVCOG, identified the relative underutilization of the I-5/Seven Oaks Interchange (Exit 35) by White City freight traffic. This interchange is the closest interchange to the industrial area of White City, but the existing connections do not provide a direct route to the interchange. Consequently, both the Pine Street Interchange and the North Medford Interchange carry a significant portion of total White City freight traffic. ODOT currently has a study underway to address infrastructure issues associated with the bridge over I-5 at Exit 35. In the short term, this study will enable first phase interchange improvements that will benefit existing uses in and around the interchange.

In the long term, the study will become part of an integrated interchange management plan that could support development of a more direct route from the White City industrial area to the Seven Oaks Interchange, which has been identified as a need by the County. A corollary to this need is the terminus of Highway 140. Highway 140 is the primary connection to Klamath Falls and other destinations east of the Cascade Mountains. Currently, Highway 140 terminates at Highway 62 in White City. A direct westerly extension of Highway 140 better aligns with the Seven Oaks interchange. Thus, an improved freight connection to the Seven Oaks Interchange would also improve connectivity for I-5 traffic with destinations east of the Cascades.

Travel from southwest Medford to northeast Phoenix and from southeast Medford to northwest Phoenix is somewhat circuitous and an improved east-west connection would provide a direct alternative route for these trips. The Medford TSP has identified the long-term need for connection of South Stage Road across the freeway to North Phoenix Road. This connection would provide an east-west crossing of the Interstate between the South Medford Interchange and the Phoenix Interchange. The Medford TSP does not establish a 20-year need for the facility but identifies the need for an eventual connection.

The County's TSP does not plan local street layouts. This type of local street planning is generally a requirement of new development, and the TSP process did not identify any critical local road circulation problems in existing areas that would warrant construction or planning of a new local road connection. Also, outside urban growth boundaries there are relatively few opportunities for in-fill type development that necessitate a local street network plan. However, there are instances where some local street planning may be appropriate. Often, the 'local' county road network becomes the higher order network when an exception area is taken into a UGB and developed at urban densities. What is a local road from the County's perspective may be a future collector street from the City's perspective. The quality of the local road network in these areas may affect the attractiveness of the exception area for future urbanization. Cities that have concerns about street connections in exception areas outside their UGB's should look at the potential for additional development under the current County zoning. If the existing zoning allows development that could jeopardize a critical road connection, then the City may want to approach the County about developing a local road network plan for the area to preserve critical future road connections.

#### **Traffic Operations**

The current P.M. peak hour operations of intersections between collectors and/or arterials were analyzed to identify potential future capacity problems. The current operations of state and county road segments between intersections were also evaluated, based on average daily traffic volumes.

Future (year 2023) traffic volume estimates were developed based on long-range population and employment forecasts, considering anticipated land development patterns. The analysis identified intersections and road sections that are expected to have capacity or other operational problems by the year 2023. Table 3-1 and Figures 3-1 and 3-1a show the intersections and roadway segments for which existing or future needs were identified in the County. This table and associated maps show County deficiencies. Other deficiencies within the various cities were identified as part of the needs analysis to identify areas where urban congestion may push traffic to rural roadways. The results of these analyses are in the Kittelson Background Document. Generally, cities' TSPs include projects for these deficiencies. The maps also show locations where historic crash data revealed a relatively high rate of crashes. The locations shown in Figure 4-1 were the focus of the planning process for the roadway system; specifically, the development and analysis of roadway improvement alternatives.

#### **Pavement Conditions**

According to Jackson County's Pavement Management System, 90.4% of County roadways are currently maintained in "Fair" or better condition. Although the County does not have an adopted good-fair-poor pavement standard, it would meet ODOT's standard of 90% in "Fair" or better condition. In comparison, only 70.7% of ODOT roadways in Jackson County are in "Fair" or better condition. When pavements deteriorate below "Fair" condition, they become much more expensive to rehabilitate than if the work were done while they were still in "Fair" condition. The County currently meets its goal of maintaining an average Pavement Condition Index rating of 80.

#### Roadway Freight Issues

Freight movement is vital to Jackson County's economy. The ability to move freight efficiently is affected by the existence of a connected roadway network, the availability of roadway capacity, the existence of weight-restricted roadway and bridges, and the ease of access to freight terminals.

TABLE 3-1 ROADWAY AND INTERSECTION NEEDS SUMMARY

Map Key	Intersection	Location	Needs	Description
1	Antelope Rd/Agate Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
2	Highway 62/Agate Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
3	Highway 62/Antelope Rd	At the intersection	Operation/ Safety	2023 LOS F, v/c >1.0
4	Highway 62/Highway 140	At the intersection	Operation	2023 LOS F, v/c >1.0
5	North Phoenix Rd/ Fern Valley Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
6	Table Rock Rd/Antelope Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
7	Table Rock Rd/Biddle Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
8	Pine Street/Hamrick Rd	At the intersection	Operation	2023 LOS F, v/c >1.0
9	Highway 99/ South Valley View Rd	At the intersection	Operation	2023 LOS E, v/c >1.0
10	Table Rock Road	Vilas to Gregory	Capacity	2023 LOS E, v/c 0.76
11	Pine Street	I-5 to Hamrick	Capacity	2023 LOS E, v/c = 0.96
12	Highway 62	Vilas Rd to Hwy 140	Capacity	2023 LOS D, v/c = 0.85
13	Highway 238	Ruch to Jacksonville	Operation	2023 Queuing due to trucks
14	Highway 140/Kershaw Road	At the intersection	Safety	High crash rates; most crashes are angle collisions due to running stop sign or failure to yield

Note: LOS = level of service, v/c = volume-to-capacity ratio, ADT = average daily traffic. See the *Background Document* for details (sections 4 and 5).

Figure 3-1 Roadway and Intersection Needs

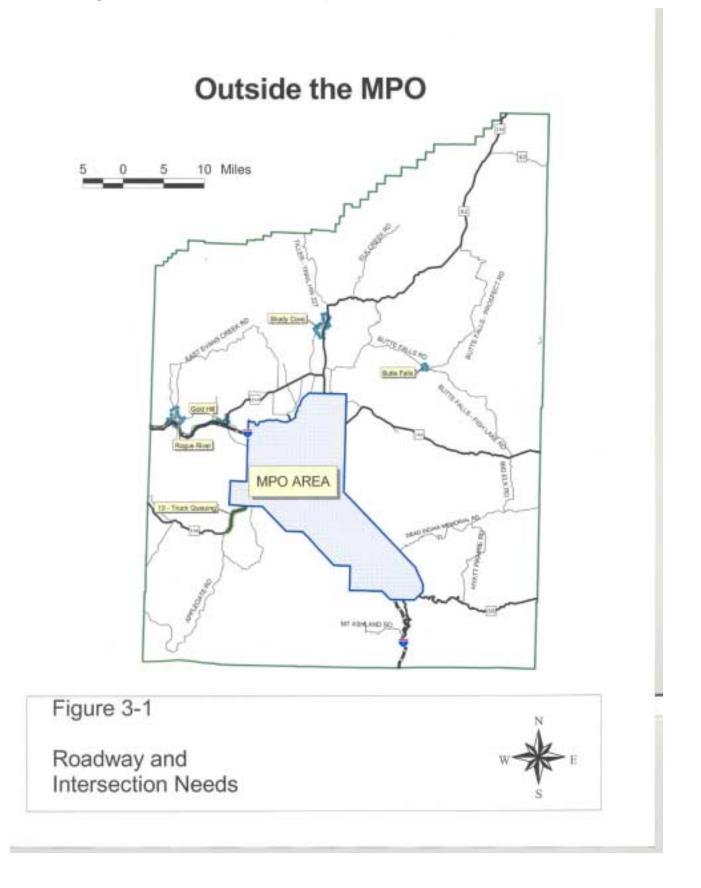
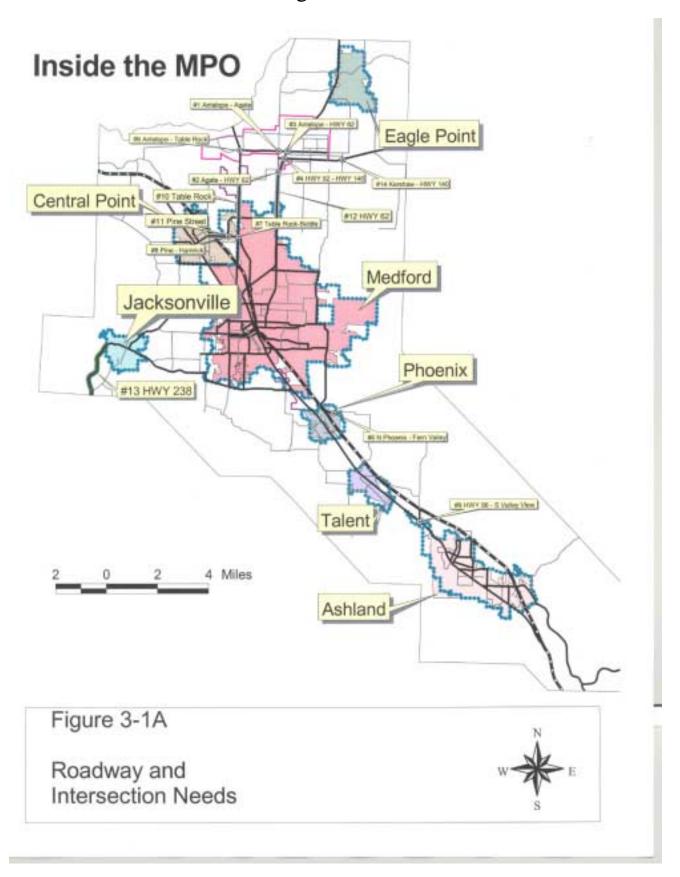


Figure 3-1A



The capacity issues identified at study intersections and roadways impact freight movement by causing delays or forcing out-of-direction travel to avoid congestion. Freight issues in Jackson County are especially important for White City, which has the highest concentration of industrial activity in the county, and for roadways that provide access to Interstate 5 for regional and interstate shipments.

#### Local Roads and Streets

There are many local roads and streets in Jackson County that do not meet adopted local road standards. Many of these roads are unpaved, which can contribute to air quality problems. Substandard County roads may have inadequate shoulders, which make walking and cycling difficult. Substandard roads can complicate emergency management operations, such as fire fighting. Jackson County applies several strategies for the maintenance and development of local roads.

Jackson County regularly reviews the condition of local unpaved roads. A scoring process has been developed to prioritize pavement of these roads as part of this inventory review process. The Roads Department staff then recommends local road pavement projects that can be funded to the County Roads Committee. The Roads Committee reviews the recommendations and then determines which local roads will be paved. Inside the MPO boundary, additional local roads are sometimes paved through Congestion Mitigation and Air Quality (CMAQ) funding. Recent expansion of the MPO area will benefit unpaved roads that would not have previously qualified for improvement due to lack of funding.

Jackson County Roads comments on land use applications regarding any public roads used by a development proposal. If the development is approved, then the Land Development Ordinance (LDO) and TSP provide for conditions of approval to improve local roads. If the improvements are not conditioned at the time of development, then a Deferred Improvement Agreement is required, so that a local improvement district may be employed to improve the local road through a consolidated future project. Collectively, the TSP and LDO assure that local road improvements will meet basic safety standards for existing parcels through the development permitting process, and that any new land divisions will meet current standards. However, the development of rural land is carefully controlled under the Oregon Statewide Planning Goals, so opportunities for improvement of local roads through development exactions are somewhat limited.

Local landowners sometimes work with the Roads Department for development of a Local Improvement District (LID) to fund local road improvements on County maintained facilities. A LID allows the County to finance and perform the local road improvement and assess the properties that benefit from the improvements over a period of time. Current practice is for the Roads staff to work with local property owners on the formation of a LID when 60% of the property owners who will benefit from the improvements agree to formation of the LID. Jackson County Roads and the Board of County Commissioners must approve the LID.

#### 3.3 PUBLIC TRANSIT SERVICE

Public transportation service within Jackson County includes fixed-route service operated by the Rogue Valley Transportation District (RVTD) (shown in Figure 3-2), and specialized transportation services provided by others for users such as senior citizens and persons with disabilities. Intercity transit service is provided by Greyhound and by Amtrak Thruway bus service (for connections to Amtrak train service).

Identified transit service needs are based on community policies and goals, rather than quantitative standards. The Regional Transportation Plan (RTP) establishes service goals related to transit.

Because these are adopted regional goals, failure to achieve them can be considered an unmet need. The RTP's transit goals and policies are provided in the TSP's *Background Document*.

#### 3.4 BICYCLE AND PEDESTRIAN SYSTEM

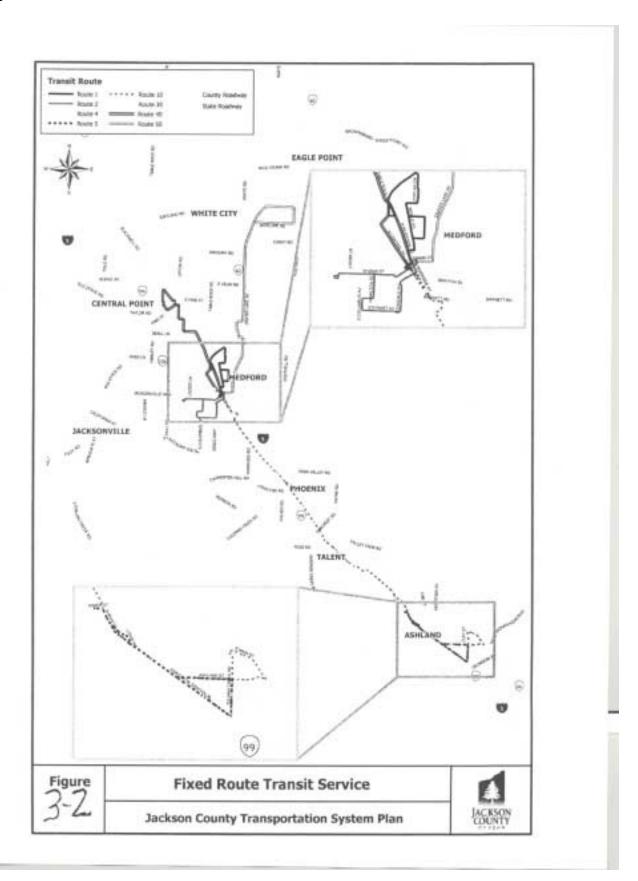
Pedestrian and bicycle modes serve a variety of needs, including relatively short trips to major attractors, recreational trips and circulation, and access to transit (generally for walking trips under ¼ mile to bus stops). Bicycle travel can be a viable commuting option, particularly where supported by facilities such as bicycle lanes or paved shoulders, secure bicycle parking, work-place showers, and bus-mounted bicycle racks. Walking is also a viable choice for commute trips for people who live near their work.

The Jackson County Bicycle Master Plan, with direction from the Bike Committee, identifies specific needs and planned projects in the County. Additionally, ODOT's Bicycle and Pedestrian Plan sets criteria for bicycle and pedestrian facilities according to roadway classification, area type (rural or urban) and daily traffic volumes. It should be noted that the ODOT Bicycle and Pedestrian Plan generally recommends minimum shoulder widths of four feet or more, depending on traffic volumes and a road's functional classification. However, available inventory data do not provide specific roadway shoulder widths, but only the presence or absence of a minimum three-foot shoulder. For the Jackson County TSP, all facilities that were previously identified in the Bicycle Master Plan and have not been improved were identified as needing improvement. Also, any facilities with less than a 3-foot shoulder and projected ADT above 3,000 for the year 2023 were considered deficient and identified as needing improvement.

Sidewalks on County roadways and state highways are generally limited to incorporated areas, such as along Highway 99 in Ashland and Medford. However, sections of Highway 99 in Phoenix do not have sidewalks. Sidewalks would be considered desirable in these locations due to the presence of residential neighborhoods and public transit service; however, right-of-way constraints have, to date, precluded the development of sidewalks in those areas.

Many of the County's collector and arterial streets have paved shoulders, which serve both pedestrian and bicycle modes. The White City Urban Unincorporated Community is an exception to this general rule, where a more comprehensive network of sidewalks is being constructed using urban renewal funds, primarily in the residential area east of Highway 62. The TSP's *Background Document* depicts the locations where adequate pedestrian and bicycle facilities currently exist, and locations where improvements are needed.

Figure 3-2 Fixed Route Transit Service



3.5

#### **AIR SYSTEM**

Jackson County is served by 23 air transportation facilities: 7 heliports and 16 airports. Only four of these facilities, all airports, are open to the general public: Rogue Valley International-Medford Airport; Ashland Muni-Sumner Parker Field; Pinehurst State Airport; and Prospect State Airport.

The Rogue Valley International-Medford Airport is the largest airport in the county and provides passenger, mail, and freight transportation. The airport's master plan identifies 21 projects in its short, intermediate, and long-term (to 2020) capital improvement program with a total cost of \$35.6 million. The largest of these improvements is the replacement of the existing terminal with a new terminal facility commencing construction in 2005.

Public airport issues relevant to the Jackson County TSP primarily relate to access to the airport for passengers and freight. The RTP identifies expanded service to the Rogue Valley International Airport as a Tier 1 (i.e., part of the financially constrained plan) transit improvement project.

Private airport issues are addressed in the policy section of the TSP and in the LDO.

#### 3.6 RAIL SYSTEM

Jackson County's freight rail facilities are discussed below. The closest passenger rail stations are in Eugene and Klamath Falls, Oregon, and Dunsmuir, California.

The Central Oregon & Pacific Railroad (CORP) is a short-line operator that serves the I-5 corridor, connecting with the Union Pacific Railroad at Black Butte, California and at the Springfield Junction near Eugene, Oregon. Daily freight service is provided five days a week, one trip each way between Medford and Grants Pass; Medford and Glendale; Medford and Black Butte; and Medford and White City. Most of the traffic originating in Medford heads south to California over one of the most rugged rail lines in the western United States. The portion of the line south from Ashland to Black Butte has no weight restrictions; however, tunnels both north and south of the Rogue Valley are inadequate in size and cannot accommodate large containers. The line is hindered further by sharp curves and steep grades. Hence, there are dimensional and speed restrictions on rail cargo through the Siskiyou Mountains, which hinders Jackson County shippers from opening markets to California.

The White City Terminal Railroad (WCTR) operates in the White City industrial area, and connects to the CORP system. The major commodities moved by WCTR are chemicals and wood products.

The *Oregon Rail Plan* surveyed shippers and all of the state's short-line railroads. The survey concluded that in order to accommodate shippers' preferences for larger shipments, most short-line railroads would need to rehabilitate their tracks and facilities. The CORP identified funding needs of \$6,043,725 for cross-tie renewal, surface, and line improvements for its entire line (including sections outside Jackson County). The 2003 Regional Freight Study, performed by RVCOG, confirmed the shippers' needs. In addition, the tunnels would need to be enlarged to accommodate larger containers.

#### 3.7 MARINE SYSTEM

Jackson County does not have a significant water-borne transportation system or facilities.

#### 3.8 PIPELINE / TRANSMISSION SYSTEMS

An inventory of Jackson County's water, natural gas, and power transmission systems was conducted for the TSP.

The Medford Water Commission (MWC) operates and maintains the water system that delivers drinking water to over 90,000 Rogue Valley residents. The Medford Water Commission serves customers inside the City of Medford, as well as some outside customers, such as White City. The Commission's wholesale customers include the cities of Central Point, Jacksonville, Phoenix, and Eagle Point. The City of Talent was recently added as a MWC customer. As part of the Talent project, a main line was stubbed for connection to Ashland should the need arise. Other wholesale customers outside Medford include four domestic water districts and the Coker Butte Water Association, which purchases its water from the Medford Water Commission and contracts with the Commission to operate and maintain its systems.

Avista Utilities is the natural gas provider serving Jackson County and other neighboring counties. Natural gas is transmitted from the north via the Williams Pipeline, which runs generally along the I-5 corridor. The PG&E Northwest Pipeline runs across Eastern Oregon, connecting Klamath Falls with Medford. A pipeline network distributes natural gas throughout Jackson County and neighboring counties.

Pacific Power is the provider of electric power in Jackson County. Efforts to obtain information regarding the power transmission system were not successful during the course of the TSP. A 500 kilo volt transmission line does bisect the county running south of Highway 140 and then west across the valley.

The City of Medford operates the main sewage waste treatment facility in the Bear Creek Valley. This facility is located north of White City along Kirtland Road. Transmission lines run throughout the valley and are operated by the City of Medford and Rogue Valley Sewer Service.

# Section 4

# Goals and Policies

#### Goals and Policies

This section provides the guiding principles for the future of the Jackson County transportation system. Three primary goals are presented for Livability, Modal Components, and Integration. The policies provide direction for accomplishment of the goals and have the force of law. The strategies guide actions to address the policies.

#### 4.1 LIVABILITY

**Livability Goal:** To develop and maintain a safe multi-modal transportation system capable of meeting the diverse transportation needs of Jackson County while minimizing adverse impacts to the environment and to the County's quality of life.

#### 4.1.1 Mobility Policies

4.1.1–A Eliminate barriers to the handicapped in transportation facilities under County jurisdiction and control. Jackson County will meet or exceed state and federal regulations for the transportation disadvantaged.

#### Strategies:

- a. Engineer traffic signals to provide crosswalk signal phases that are sufficient for pedestrian crossings by the elderly and handicapped.
- b. Provide wheel chair accessible curb cuts.
- 4.1.1-B The County will work with cities, regional agencies, and the State to provide transportation services for the disadvantaged.

#### 4.1.2 Connectivity Policies

- 4.1.2-A Jackson County will promote a well-connected street and road system to minimize travel distances.
- 4.1.2-B Jackson County will promote road alignments that produce well-spaced right-angled road and street connections.

#### 4.1.3 Community Involvement Policies

- 4.1.3-A Legislative amendments to the TSP will include community outreach throughout the planning process.
- 4.1.3-B If a project is developed that is not consistent with a facility's functional classification, then an amendment to the TSP will be required to assure adequate alternatives analysis and citizen involvement.

#### 4.1.4 Safety Policies

4.1.4-A The County will provide a transportation system that supports emergency access for emergency vehicles and provides for evacuation in the event of a wildfire hazard or other emergency.

#### Strategies:

- a. Establish and maintain land development ordinance regulations that assure minimum emergency vehicle access standards are provided for all development. These standards should provide base-line safety protections that are related to the total amount of development that would use the access in the event of an emergency.
- 4.1.4-B Public Safety will be a primary consideration in the planning, design, and maintenance of all Jackson County Transportation Systems.(RTP 16-4)

#### Strategies:

- a. Undertake, as needed, special traffic studies in problem areas, especially around schools and large employment centers, to determine appropriate traffic controls to effectively and safely manage automobile and pedestrian traffic.
- b. Coordinate with other agencies to promote traffic safety education and awareness. This should include bicycle and pedestrian safety education. (RTP 10-8, 16-1)
- c. Actively enforce the County and State motor vehicle codes to increase traffic safety, including enforcement of bicycle and pedestrian laws and regulations. (RTP 10-8, 16-2)
- d. Encourage commercial vehicle regulations that improve safety. (RTP 15-1(2))
- 4.1.4-C Maintain clear vision areas (sight triangle) adjacent to intersections so as not to obstruct the necessary views of motorists, bicyclists, and pedestrians. (RTP 16-3)

#### Strategies:

a. Maintain development ordinance regulations that will assure adequate sight distances at intersections.

#### 4.2 MODAL COMPONENTS

**Modal Components Goal:** To plan an integrated transportation system that maintains existing facilities and responds to the changing needs of Jackson County by providing effective multi-modal transportation options.

#### 4.2.1 Vehicular System Policies

4.2.1-A Jackson County will prioritize preservation and maintenance of the existing road system rather than increasing vehicular capacity. (RTP 8-1)

#### Strategies:

a. The County will work to maintain a pavement condition index of 80 or better. Capital projects may need to be postponed to meet this goal.

4.2.1-B Roadway Improvement Projects will be consistent with the functional classification designations (arterial, major collector, etc.) in the TSP.

#### Strategies:

- a. Where roadway improvement projects are planned on collectors that have existing grade changes and/or road curvatures that do not present a hazard and are consistent with the minimum engineering design standards for the expected speed limit and traffic flow, these features should be retained through the reconstruction project to maintain a traffic-calming effect.
- b. The selection and design of road improvement projects should consider the project's potential to reduce conflicts between logging, agriculture, and aggregate generated traffic and other traffic.
- c. Roadway Improvement Projects will be based on the TSP design standards. A lesser design standard may be built where sufficient right-ofway acquisition would result in substantial structural setback encroachments. A different design standard may also be built where it is modified by a more detailed corridor management plan to better accomplish TSP goals and address TSP policies. Such corridor management plans, should be adopted and incorporated by reference into the TSP.
- 4.2.1-C Implement transportation demand management primarily through application of an integrated land use and transportation plan. Encourage other methods of transportation demand management as feasible opportunities arise. (RTP 7-1)
- 4.2.1-E Vehicle parking provided with development will be proportional to the development. Excessive parking that is not reasonably necessary for the proposed use will be discouraged. (RTP 9-1, 9-2)

#### Strategies:

- a. Site development parking regulations should not require more parking for a use than would be used on a typical day of operation.
- 4.2.1-F Outside the MPO boundary, the County is committed to maintaining a volume to capacity ratio of .85 for weekday peak hour traffic.

#### Truck Freight

- 4.2.1-G Balance the need for movement of goods with other uses of County arterials and State Highways by maintaining efficient through movement on major truck freight routes. (RTP 6-11 & 15-1(7))
- 4.2.1-H Work with ODOT to identify roadway obstacles and barriers to efficient truck movements on state highways and coordinate highway projects with other freight movement projects and infrastructure. (RTP 15-1(6) & RTP 15-1(1))

#### Strategies:

- a. Participate with ODOT in continued design work related to Phase 2 of the I-5 Exit 35 Interchange Management Plan, including consideration of land use measures that balance the need for effective access control with land use planning that maximizes the economic development potential of the interchange area for freight forwarding and related industrial facilities.
- 4.2.1-I Support employment of technology to improve freight mobility.

#### Strategies:

- a. Support Intelligent Transportation System Commercial Vehicle Operation technology. (RTP 15-1(3))
- 4.2.1-J Jackson County is committed to maintaining and improving roadway facilities serving inter-modal freight facilities. (RTP 15-1(4))

#### **Coordination**

- 4.2.1-K The County adopts as part of its TSP, and incorporates by reference, the Regional Transportation Plan (RTP) for all regionally significant transportation facilities within the MPO area. This adoption does not include the policies as they are written in the RTP. The RTP policies, as adopted by Jackson County, are amended, referenced and incorporated directly in the Goals and Policies Section of the Jackson County TSP. (RTP 18-2, 18-3)
- 4.2.1-L Updates to the RTP that change policies and/or affect planning of regionally significant County facilities will require an amendment to the County TSP to maintain plan consistency.
- 4.2.1-M Jackson County establishes Long-Term Potential (LTP) Comprehensive Plan corridor areas where planning for future road connections beyond the planning horizon of the TSP are probable (see Figure 5-7).

#### Strategies:

- a. Review LTP overlay designations at least once every ten years to determine whether protection of the corridor is still warranted based on an analysis that determines the corridor is still a probable location for a future road connection.
- b. If a road is planned at a future time within a LTP corridor, then the LTP corridor designation will be removed. The presence of an LTP corridor designation provides no 'special status' for planning a transportation improvement, such as the need for exceptions to the Statewide Planning Goals.
- 4.2.1-N A separate White City Transportation System Plan has been completed in tandem with the Jackson County TSP. The White City TSP is not additive to the Jackson County TSP. Coordination and consistency issues will be evaluated as if White City TSP were a separate incorporated city.

- 4.2.1-O Jackson County will coordinate transportation decision-making with emergency fire services and other emergency services agencies.
- 4.2.1-P Jackson County will coordinate with ODOT to assure that highway designations and management policies are appropriate and meet the Goals and Policies of the Oregon Highway Plan and the Jackson County TSP. Jackson County will work with ODOT for effective management of Highway capacity.

#### Strategies:

- a. Coordinate with ODOT on the development of corridor plans that manage access, integrate land-uses, and analyze traffic flows to improve traffic carrying capacity and safety on highways and county-to-highway road connections.
- b. Examine options to designate freight routes as Expressways where the routes are outside urban growth boundaries and unincorporated communities.
- c. Balance freight needs with needs for local circulation, safety and access in Special Transportation Areas.
- d. Ensure ODOT notification for all Type 3 and Type 4 land use permits that may impact State facilities if approved.
- 4.2.1-Q Jackson County will pursue jurisdictional road transfers that improve jurisdictional allocation of facility management responsibilities. Roads accepted by Jackson County in jurisdictional transfers should be paved rural roads for which the County has special maintenance expertise.

#### Strategies:

- a. Urban Growth Boundary expansions should be accompanied by an agreement to transfer jurisdiction of County roads within the UGB to the applicable city.
- 4.2.1-R Jackson County will coordinate with cities on transportation planning and transportation projects to provide well-connected transitions from city to County transportation systems.

#### Strategies:

- a. Inside Urban Growth Boundaries (UGB), transportation projects and transportation planning should defer to the city's adopted Transportation System Plan; this deference should occur in accordance with any applicable provisions in the Urban Growth Management Agreement between the particular city and the County.
- b. Inside an UGB and absent an adopted Transportation System Plan for the applicable city, transportation planning and transportation project decisions will be based on the Jackson County Transportation System Plan; application of the County TSP in this situation should occur in

- accordance with any applicable provisions in the Urban Growth Management Agreement between the particular city and the County.
- c. Require Urban Growth Boundary expansions to be accompanied by a conceptual higher order street system plan to be adopted by the city at the time of expansion.
- d. Where an UGB boundary is located within a County right-of-way, the County's TSP will govern, subject to any provisions in the applicable Urban Growth Management Agreement(s). Generally, Urban Growth Boundaries should not be located within a County ROW, the boundary should either include all of the right-of-way or none of it.

#### MPO Area Traffic Engineering and Performance Standard

- 4.2.1-S Jackson County is committed to maintaining a volume to capacity ratio of 0.95 for weekday peak hour vehicular traffic in the MPO area. (RTP 6-1)
- 4.2.1-T Jackson County will engineer traffic flow to provide efficient transportation system management.

#### Strategies:

- a. Existing traffic signals and signal systems will be maintained and updated to improve traffic flow and functionality. This includes removal of traffic signals that are no longer necessary as a result of changes in land use (RTP 6-2, 6-3, 6-5).
- b. Whenever financially possible and technically justified, Jackson County will interconnect and coordinate signals and link them to a master control system for optimizing the traffic flow along the street system (RTP 6-4).
- c. Consider intersection geometric improvements that would increase the capacity and safety for all road users (RTP 6-6).
- d. The County will consider prohibition of turn movements at major intersections to increase capacity and minimize modal conflicts (RTP 6-7).
- e. The County will install new traffic signals when warranted at major intersections. The Manual on Uniform Traffic Control Devices (MUTCD) will be used as a guideline to identify new traffic signal locations. (RTP 6-9).
- f. Jackson County will coordinate with ODOT on ramp signals at freeway on-ramps to meter the amount of traffic entering the freeway to maintain optimum traffic flow. (RTP 6-10).

#### Access Management

4.2.1-U Jackson County will manage road approaches to preserve the safe and efficient operation of the County's roadways, consistent with their functional classification.

#### Strategies:

- a. Apply the access management provisions in Section 5.2 of the Jackson County TSP.
- b. Within a UGB, apply policy 4.2.1-R and its associated strategies for application of the appropriate access management provisions.
- c. Amend existing corridor management provisions in the LDO or create new provisions as corridor management plans are developed for Highway 62, and other high volume corridors.

#### 4.2.2 Transit System Policies

4.2.2-A Encourage transit programs that meet social service needs, such as for the elderly, disabled, and transportation disadvantaged.

#### Strategies:

- a. Provide land use regulations that are supportive of transit services that address social service needs recognizing that these uses may be dispersed localized operations.
- 4.2.2-B Encourage transit service in urban and urbanizing areas, where it is an energy-efficient form of transportation.

#### Strategies:

- a. In cooperation with RVTD, cities and school districts, develop standards for bus turnouts and other features to improve bus operations and help increase road system capacity.
- b. Encourage park and ride facilities as a cost effective means of increasing the efficiency of the existing transportation system. (RTP 7-6)
- c. Work with RVTD to designate major transit stop locations. Provide land use regulations that will support siting of park and rides and other major transit facilities.
- d. Coordinate roadway improvement projects with RVTD to include features beneficial to transit riders and RVTD operations, such as bus shelters.
- e. Periodically assess the need to plan a commuter rail system.
- 4.2.2-C Jackson County will support the provision of transit amenities because a successful public transit system depends on commercial, multi-family, and institutional developments that have integrated transit facilities at key locations.

#### Strategies:

a. When developments for these uses are located near a major transit stop, the LDO should require the main entrance to the development face the transit stop and be located near the transit stop.

 Coordinate with RVTD on land use permits, to assure that these types of developments will be designed to function well with public transit services.

#### 4.2.3 Pedestrian System Policies

#### Countywide:

4.2.3-A The County will include pedestrian facilities and connections as a fundamental component in the maintenance and development of the overall County transportation system. The County transportation system will promote a safe, linked pedestrian system that connects residential areas to schools, recreation, commercial centers, employment centers, and other activity centers.

#### Strategies:

- Promote adequate paved shoulders for safe pedestrian use, as rural roads are improved, consistent with the TSP functional classification and design standards.
- b. The location and design of all sidewalks will comply with the requirements of the Americans with Disabilities Act. (RTP 10-5)
- c. Provide marked crosswalks at signalized intersections. (RTP 10-9).
- d. Plan a non-motorized connection to extend from the Bear Creek Greenway in Central Point to the County line west of Rogue River.

#### Policies for Urban Areas and Pedestrian Districts in Rural Communities:

- 4.2.3-B Require pedestrian accessways between adjacent developments when roadway connections cannot be provided, unless it can be shown that an accessway cannot reasonably be expected to improve pedestrian connectivity now or in the future. (RTP 10-4).
- 4.2.3-C Require construction of sidewalks as a condition of approval on proposed development. This requirement may be relaxed in industrial areas where there is little opportunity for systemic pedestrian circulation.
- 4.2.3-D The County is committed to improving sidewalks, and other amenities, where pedestrian accesses to bus stops are deficient. (RTP 10-6).
- 4.2.3-E Planter strips are an important pedestrian amenity and will be provided in accordance with the street design guidelines in the TSP for roadway improvement projects, where appropriate. Planter strips are generally appropriate where the County will not be responsible for long-term maintenance of the strip.

#### Strategies:

a. Planter strips may not be appropriate where sufficient right-of-way acquisition would result in substantial structural setback encroachment.

- b. Planter strips are generally appropriate within an Urban Growth Boundary when jurisdictional transfer of the facility to an applicable city can reasonably be expected within 10 years of project completion.
- e. Provision of planter strips is appropriate outside UGBs where development is likely to occur and encroachment permits for planter strip maintenance can be made a condition of development approval. When roadway improvement projects are performed in these areas, planter strips should be evaluated on a property-by-property basis during the project design phase. Sidewalks adjacent to the curb should be built as part of the roadway improvement project on properties where development or redevelopment is not expected in the next 10 years. The planter strips and sidewalks for the remainder of the properties will then be made a condition of development approval. Ordinances that assure adjacent owner responsibility for sidewalks and planter strip maintenance as a condition of development approval should be established and maintained.
- d. Where planter strips are not provided, the sidewalk should be built to the maximum width provided in the applicable design standard. This requirement may be relaxed where right-of-way acquisition would result in substantial encroachments into structural setback areas.

#### 4.2.4 Bicycle System Policies

4.2.4-A The County is committed to reducing per capita Vehicle Miles Traveled by providing bicycle facilities and connections to make cycling an attractive alternative to driving. The County will encourage bicycle use by maintaining and developing a safe, linked bicycle system that connects residential areas to schools, recreation, commercial centers, employment centers, and other activity centers. (RTP 10-1).

#### Strategies:

- a. Encourage facility improvements that add connections from local bicycle systems to the Bear Creek Greenway.
- b. Plan a non-motorized connection to extend from the Bear Creek Greenway in Central Point to the County line west of Rogue River.
- c. Integrate bicycle facility needs into all planning, design, construction, and maintenance activities of Jackson County. On a case-by-case basis, this should include a connectivity analysis for establishment or retention of accessways, bikeways, or trails prior to vacation of any public access easement or right-of-way. The connectivity analysis should determine if the right-of-way provides an important non-motorized connection between bicycle facilities and whether its vacation will result in significant out-of-direction travel.
- d. Provide bicycle lanes in urban areas and adequate shoulders in rural areas, in addition to parallel bikeways, as part of arterial and collector roadway improvement projects (RTP 10-1).

4.2.4-B The County will prioritize the preservation and maintenance of existing bicycle facilities.

#### Strategies:

- a. Roads with designated bicycle facilities will receive the highest priority for street sweeping (RTP 10-3).
- b. Maintenance activities, such as 'chip-sealing', should be performed in a manner that minimizes adverse impacts to desirable cycling conditions.
- 4.2.4-C Bicycle planning activities and improvement programs will be well coordinated with affected jurisdictions and agencies.

#### Strategies:

- a. Coordinate with RVTD to minimize conflicts between transit stops and bike lanes.
- b. Work with RVTD to make multi-modal (transit-bike) trips convenient.
- 4.2.4-D Jackson County is committed to improving and expanding its inventory of bicycle amenities to make cycling a desirable transportation alternative.

#### Strategies:

- a. Maintain development ordinance regulations that require bicycle parking installation with certain types of development such as at schools, transit centers, shopping centers, apartments, etc. Development ordinance regulations should be proportional to the size of the development.
- b. Establish development ordinance incentives when the installation of covered and/or enclosed bicycle parking is provided in new commercial, institutional and multiple-family developments for urban and urbanizing areas.
- c. Bicycle parking design standards should be established and maintained to assure functional bike parking facilities. These standards should address concerns such as: locations for bicycle lockers, interior identified bike parking spaces, bike rack design, and bike rack proximity to building entrances. Standards should be consistent with the Oregon Bicycle and Pedestrian Plan's minimum design standards.

#### 4.2.5 Aviation System Policies

4.2.5-A Jackson County's first aviation planning priority is the preservation and protection of existing commercial and general aviation facilities and uses for all public use airports.

#### Strategies:

a. Coordinate Airport planning with the Oregon Department of Aviation, Airport management agencies, Medford, Central Point and Ashland.

- b. Meet or exceed the land use and transportation planning requirements of OAR 660 Divisions 12 and 13 for all public airports to reduce hazards and limit conflicts in areas surrounding these airports.
- c. Customize planning efforts to reflect the different aviation needs and practices at each public airport.
- d. Maintain and revise, as appropriate, aviation-based land use regulations to protect and preserve existing public use airports.
- 4.2.5-B Jackson County will plan for the expansion and enhancement commercial and general aviation facilities and uses for all public use airports as planning deficiencies are identified.

#### Strategies:

- a. Work with the Rogue Valley International-Medford Airport to expand its role as a regional airfreight hub. (RTP 15-3)
- b. Work with state and federal agencies to identify and procure funding if special planning and/or studies are necessary to address problems such as land use conflicts, airspace corridor encroachment, and airport approach hazards.
- 4.2.5-C Jackson County will support the development of new private-use airports and the preservation and expansion of existing private-use airports in accordance with applicable comprehensive plan policies and development ordinances.

#### Strategies:

- a. Maintain and revise, as appropriate, aviation-based land use regulations to support private aviation facilities and uses in appropriate areas.
- b. Develop and maintain a current mapping inventory of private-use airports in the County.

#### 4.2.6 Bulk Transport and Mass Freight System Policies

4.2.6-A Jackson County will continue to plan for rail service as a viable long-term transportation option for the Rogue Valley.

#### Strategies:

- a. Promote preservation of rail corridors and explore methods of improving rail infrastructure to improve its role in moving freight. (RTP 15-2)
- b. Locate proposed rail spur lines to minimize conflicts with adjoining land uses and streets.
- c. New at-grade rail crossings should be carefully planned to reduce time losses due to traffic delays and accidents, and produce increased efficiency of railroad operation and increased public convenience.

4.2.6-B Jackson County will encourage bulk transportation facilities to provide efficient transport of bulk goods.

#### Strategies:

- a. Provide development ordinance regulations that support the development of pipeline systems and other continuous flow bulk transport systems.
- b. Plan for the development of intermodal facilities at strategic locations such as the Rogue Valley International-Medford Airport and along the main rail lines. (RTP15-6)

#### 4.3 INTEGRATION

**Integration Goal:** To achieve the livability and modal elements goals by integrating land use planning, system financial planning, environmental planning and application of policies to address transportation needs in specific locations.

#### 4.3.1 Transportation and Land Use Coordination Policies

4.3.1-A The County will prohibit new or expanded development proposals with the potential to prevent placement of, or significantly increase the cost of, designated transportation connections in the TSP.

#### Strategies:

- Establish and maintain development review procedures that will prevent conflicts between development and future transportation facilities and connections.
- 4.3.1-B Plan amendments, zone changes and type 3 and 4 land use permits need to demonstrate that adequate transportation planning has been done to support the proposed land use.

#### Strategies:

- a. Inside urban growth boundaries, demonstration of adequate transportation facilities for a land-use action should defer to the city's adopted Transportation System Plan; this deference should occur in accordance with any applicable provisions in the Urban Growth Management Agreement between the particular city and the County. Absent an adopted Transportation System Plan for the applicable city, land use actions related to transportation planning and transportation project decisions will be based on the Jackson County Transportation System Plan; application of the County TSP in this situation should account for any applicable provisions in the Urban Growth Management Agreement between the particular city and the County.
- b. Ensure that legislative land use changes will not result in land uses that are incompatible with the public transportation facilities they will use through compliance with, and direct application of, OAR 660 Division 12.

- c. Ensure that quasi-judicial comprehensive plan changes, zone changes and type 3 and 4 land use permits will not result in land uses that are incompatible with the public transportation facilities they will use. To meet this requirement, criteria "i, ii and iii" below must be demonstrated to be met through a Transportation Impact Study (TIS) completed by a registered professional engineer with expertise in transportation. Compliance with criteria "i, ii and iii" will be considered sufficient to demonstrate compliance with the Transportation Planning Rule. The TIS requirement may be waived if the Planning Director and the County Engineer administratively concur in writing that sufficient specific evidence is provided from affected transportation management agencies that the cumulative effect of approving the proposed plan amendment, zone change or type 3 or 4 land use permit, along with the potential for similar approvals on similarly situated parcels within 2 miles (.75 miles in the MPO) of the subject parcel (or portion of the parcel that is requesting the land use change or permit), will not significantly affect a transportation facility identified in State, regional or local transportation plans (RTP 6-1).
  - i. Approval of the proposed changes and the cumulative impact of the potential for similar approvals on parcels within 2 miles (.75 miles in the MPO) of the subject parcel would not change the functional classification of an existing or planned transportation facility nor would it change standards implementing the functional classification system (unless the change can be made in conjunction with a TSP amendment pursuant to policy 4.3.3-D).
  - ii. Approval of the proposed changes and the cumulative impact of the potential for similar approvals on parcels within 2 miles (.75 miles in the MPO) of the subject parcel would not allow types or levels of land uses that would result in levels of travel or access inconsistent with the functional classification of a transportation facility (unless a functional class change is made pursuant to policy 4.3.3-D).
  - iii. Approval of the proposed land use changes and the cumulative impact of the potential for similar approvals on parcels within 2 miles (.75 miles in the MPO) of the subject parcel would not cause a facility to exceed the adopted performance standards for facilities used by the subject parcel. A facility used by the subject parcel is defined as any facility where approval of the proposed land use changes and the cumulative impact of the potential for similar approvals on parcels within 2 miles (.75 miles in the MPO) of the subject parcel would increase traffic on a facility by more than 3% of the total capacity for collectors and/or 2% of the total capacity for arterials and state highways. ODOT may determine that the subject parcel, beyond this definition and in accordance with the Oregon Highway Plan, will use additional state facilities.
- d. Projects proposed in the TSP towards the end of the planning horizon cannot be relied on for quasi-judicial plan amendments, zone changes or type 3 and 4 land use permits. TSP projects on state highways cannot be

relied on unless in an adopted STIP. TSP planned projects may have to be altered or cancelled at a later time to meet changing budgets or unanticipated conditions such as environmental constraints. However, quasi-judicial plan amendments, zone changes or type 3 and 4 land use permits may demonstrate compliance with strategy "c." based on planned facility improvements under the following circumstances (and provided that an additional comprehensive plan amendment is not required as part of project development - such as an ESEE):

- i. For ODOT facilities within the MPO, projects that are in the short and/or medium range Regional Transportation Plan (RTP) Tier 1 project list. For ODOT facilities outside the MPO, projects that are programmed into the STIP. (An alternate strategy for an ODOT facility may be to coordinate with ODOT on a change to the applicable Highway Plan requirements)
- ii. For County facilities outside the MPO and local county facilities in the MPO, projects that are in the financially constrained TSP projects list and are in either the short and/or medium range Tier 1 lists.
- iii. For regionally significant County facilities within the MPO, the facility must be in either the short and/or medium range RTP Tier 1 lists.
- e. If a concurrent quasi-judicial TSP amendment is submitted (See Policy 4.3.3-D) with the proposed comprehensive plan amendments and/or zone changes, the actions may be considered together. If the TSP amendment can be made then any changes included in the TSP amendment may be counted under section d for compliance with section c.
- 4.3.1-C Jackson County will establish and maintain land development ordinance regulations to protect and improve the transportation system.

#### Strategies:

- a. Amend the Land Development Ordinance to address the deficiencies identified in the Transportation Planning Rule audit conducted as part of the transportation system planning process.
- b. Development ordinance regulations should require on-site improvements that require frontage improvements to appropriate standards, dedicate sufficient right-of-way for public roads, and construct all on-site facilities to the applicable County standard.
- 4.3.1-D Regardless of whether adequate capacity exists, changes in land use and new or expanded development proposals will not be approved if they will create, or would worsen, a safety problem on a public transportation system or facility. If a problem would be created or worsened without mitigation, then a mitigation plan that resolves the safety concern must also be approved and included in the proposal in order for the land use change and/or development proposal to be approved. Where a safety concern exists, study by a registered professional engineer with expertise in

transportation will be considered to determine if a problem would be created or worsened.

4.3.1-E Regional planning projects intended to identify future urban growth boundary expansion areas, such as the on-going Regional Problem Solving (RPS) process, must include an appropriate transportation planning component.

#### Strategies:

- a. UGB expansions into Urban Reserve areas should not create transportation problems that cannot be adequately addressed, given reasonable transportation funding expectations.
- b. Where UGB expansions are proposed into an Urban Reserve Area developed through a regional planning project, the proposed expansion should include adoption of a refinement plan to be added to the applicable city (or cities) Transportation System Plan at the final proceeding approving the urban growth boundary expansion.

#### 4.3.2 Financing Policies

4.3.2-A Jackson County will prioritize public transportation projects that have the most benefits for the cost. This prioritization will not discount the value of qualitative differences among projects.

#### Strategies

- a. The County will pursue external funding opportunities to leverage County funds. The County should pursue both private and public sources.
- 4.3.2-B Jackson County will review transportation system funding needs on a regular basis. If the need for additional funding is identified, then the County will explore ways to close the gap between needs and revenues.
- 4.3.2-C New or expanding development proposals will be financially responsible for on-site and frontage improvements concurrent with new development, or contribute a fair share for such improvements.

#### Strategies:

- a. New local road construction to County standards will be entirely at developer expense.
- b. Where developers are required to make improvements that benefit the general public, such as improvements on collectors and arterials, provide appropriate system development charge credits.
- c. Land Development Ordinance regulations should provide standards and requirements to allow for deferral of frontage improvements in circumstances where the integrity of the system will not be degraded while the improvements are being deferred. Deferral of frontage improvements should be applied in a judicious process that assures the requisite improvements are not being deferred indefinitely.

4.3.2-D New or expanding development proposals will contribute a fair share for adequate off-site system improvements.

#### Strategy:

- a. System Development Charges (SDCs) and dedication requirements are the preferred methods to assure that new development bears a proportionate share of the cost of system-wide off-site capital facilities improvements. Ordinances should be maintained to reflect this preference. These funds will be dedicated to the cumulative need for off-site capital improvements to arterials and collectors.
- b. When off-site improvements are necessary for development of a specific site or area, the county should develop and maintain a 'tool bag' of financing options. SDC surcharge districts, reimbursement districts, SDC credit banks, and LIDs are examples of tools that should be available.
- c. When a quasi-judicial TSP amendment is approved for compliance with Policy 4.3.1-B for a quasi-judicial plan amendment and/or zone change an equitable, sufficient, and timely funding mechanism for any requisite offsite facility improvements must be assured at the time of the plan amendment and/or zone change.

#### 4.3.3 Area Specific Policies and Quasi-Judicial TSP Amendments

- 4.3.3-A The County will work with the Oregon Department of Transportation and the MPO to plan a direct route between White City and Interstate 5 to improve freight truck mobility. Significant improvements to the Seven Oaks interchange should occur in a context that will eventually facilitate a direct route between White City and Interstate 5.
- 4.3.3-B An EIS process has been ongoing for the Highway 62 Expressway that is included in the Medford TSP. The EIS and final analysis for the corridor that ties back into Highway 62 has not been completed. Construction of any portion of the expressway north of the Medford UGB would require a legislative amendment to the Jackson County Comprehensive Plan. This legislative action would include goal exceptions and an amendment to the TSP. A review and analysis of land use impacts near the expressway should be conducted; the legislative action should incorporate results of the land use review and analysis. Since the Highway 62 Expressway is an ODOT facility requiring a legislative action by Jackson County, ODOT and Jackson County should develop a unified planning work plan and negotiate a financing agreement for completion of the planning project.
- 4.3.3-C Support planning of an alternative transportation route to move regional through traffic, particularly logging, agriculture and aggregate generated truck traffic out of historic downtown Jacksonville. Work with the city of Jacksonville to expand its UGB to include the areas proposed for its "north arterial connector" as the preferred alternative to address the city's through-traffic issues.
- 4.3.3-D Jackson County will only consider TSP amendments through a quasi-judicial process where the amendment meets legal requirements for a quasi-judicial

land use decision and will not have extensive consequences or cause any inconsistencies with the balance of the TSP.

#### Strategies:

- a. Examples of TSP amendments that are not quasi-judicial in nature and would require a legislative amendment to the TSP include but are not limited to the following: Text amendments to policies or definitions, text amendments to access management guidelines, alterations to standards implementing the functional classification system, and changes to adopted facility performance standards.
- b. Examples of TSP amendments where a quasi-judicial process may be appropriate include but are not limited to the following: Addition of projects into the financially constrained projects list that will bring a facility up to the functional classification standard and will not affect the relative position of any other projects in the list, the change from one functional classification to an adjacent classification in the hierarchy (e.g. from minor collector to major collector) for a single road segment (a segment being the portion between two higher order intersections), addition of a project for a new higher order facility that will not change any other functional classifications in the plan.

#### 4.3.4 Environmental and Scenic Resource Policies

- 4.3.4-A Support the exploration and innovation of alternative travel modes and fuel sources in order to reduce single-occupancy vehicles, vehicle miles traveled, some noise sources, and reliance on fossil fuels.
- 4.3.4-B Jackson County will remain committed to the maintenance and development of an environmentally sensitive transportation system.

#### Strategies:

- a. Require goal exceptions for transportation facilities and improvements on rural land which do not meet the requirements of OAR 660-012-0065.
- b. Evaluate transportation facilities and improvements for compliance with the County's acknowledged Goal 5 protection plan to determine if the facility and/or improvement is a conflicting use that will affect a protected resource. If a protected resource will be affected then an amendment to the Comprehensive Plan to repeat the ESEE analysis for the resource will need to be completed.
- c. Reduce air quality impacts primarily by planning a vehicle system that is based on a regional travel demand model capable of testing the impacts of different transportation system decisions on air quality.
- d. Minimize impacts of transportation systems on water and soil quality through application of best management practices for facility construction and storm water management.

- e. Provide planter strips, where appropriate, to attenuate some street noise impacts and reduce storm water run-off.
- 4.3.4-C Jackson County will continue to support the ODOT scenic byways program and will continue to protect other scenic roadways.
- 4.3.4-D Jackson County will provide a transportation system that is consistent with the Natural Hazards Element of the Comprehensive Plan through best management practices in design and maintenance of the system as well as through adherence to applicable sections of the Land Development Ordinance, such as floodplain development requirements.

### Transportation System Plan

#### 5.1 INTRODUCTION

This section presents the individual transportation modal elements that comprise the Jackson County Transportation System Plan (TSP). The TSP addresses those components necessary for the development of the future transportation network, including:

- Roadway System Plan;
- Public Transportation System Plan;
- Bicycle & Pedestrian System Plan;
- Air/Water/Pipeline System Plan; and
- Implementation Plan.

All of the TSP elements presented in this section are based on the requirements of the Oregon's Transportation Planning Rule (TPR). The modal plans have been developed based on the existing conditions and future conditions analysis, and alternatives evaluations, taking into consideration the interest of citizens, business owners, and governmental agencies, as expressed by the Technical Advisory Committee (TAC), County staff, and citizen input.

#### 5.2 ROADWAY SYSTEM PLAN

The Jackson County roadway system plan reflects the anticipated operations and circulation needs through the year 2023 and provides guidance on how to facilitate that travel over the next 20 years. The plan focuses on the County's collector and arterial system, although road standards are also provided for local roadways.

#### **Functional Classifications**

A roadway's functional classification is determined by several factors, how the facility connects with the rest of the system, the volume of traffic it is expected to carry, and the types of trips it is expected to carry. The functional classification considers the adjacent land uses and the kinds of transportation modes that should be accommodated. The public right-of-way should also provide sufficient space for utilities to serve adjacent land uses.

The functional classification system for Jackson County divides all County roadways into Urban and Rural classifications. All of the County roadways within urban growth or urban containment boundaries fall under the urban classification (see policy 4.2.1-R & associated strategies). Also, the Federal Aid Urban Boundaries (FAUB), required by the Federal Highway Administration (FHWA), include some areas outside UGB's and UCB's in census defined urban areas. These areas are classified as urban under the federal system, but not all of the roads in these areas may be appropriate for an urban standard road. Projects within the FAUB, but outside a UGB or UCB will be analyzed case by case to determine whether an urban or rural standard is most appropriate. All other County roadways fall under the rural functional classification. Within these groups, roadways are categorized as Freeways, Arterials, Major Collectors, Minor Collectors, or Local Streets or Roads. Table 5-1 provides a detailed description of each category.

Figure 5-1 presents the functional classifications for all existing and planned higher order roads. The alignments of future roadways should be considered conceptual: the end points of the roads are fixed, but the alignments between end points may vary depending on project design requirements. Figure 5-1 is the 20-year functional classification plan for Jackson County. Some higher order roads are not publicly maintained. Planned TSP projects will bring them up to County standard and will include acceptance for maintenance; the functional classification does not apply until the project is complete.

TABLE 5-1 JACKSON COUNTY FUNCTIONAL CLASSIFICATION DESCRIPTIONS

Functional Classification	Traffic Function Description	Connectivity Function	Planned Average Daily Traffic Range
Freeway	Primary function is to carry high levels of regional vehicular traffic and public transit at high speeds; full access control, with access limited to interchanges; street crossings via grade separations; widely spaced access points; has a median; pedestrian and bicycle traffic discouraged or prohibited. High volumes of through freight traffic.	Primary connectivity function is to connect major interstate and intrastate destinations. Also, freeways should connect some major intra-regional destinations.	>20,000 (rural/urban)
Arterial	Primary function is to serve both local and through traffic as it enters and leaves urban areas; serves major traffic movements; access control may be provided through medians and/or channelization; restricted on-street parking; sidewalks and bicycle facilities provided; will be used by public transit in urban areas. Carries high volumes of freight traffic that have both local and external destinations	Primary function is to make connection between major intracounty and regional destinations, and to connect cities and communities. Connects to adjacent counties. Connects the collector system to freeways.	>5,000 (rural) >15,000 (urban)
Major Collector (And Urban Minor Arterial)	Primary function is to serve traffic between neighborhoods and community facilities; provides some degree of access to adjacent properties, while maintaining circulation and mobility for all users; carries lower traffic volumes at slower speeds than arterials; typically has two or three lanes; pedestrian and bicycle facilities provided; may be used by public transit in urban areas. Some freight traffic is destined for local delivery or local markets.	Primarily connects local roads and minor collectors to arterials and other major collectors. May provide the primary connections between rural communities, rural areas, and rural destinations. Connects local areas to regional destinations.	4,500-15,000 (rural major collector) 3,500-14,000 (urban major collector) 5,000-18,000 (urban minor arterial)
Minor Collector	Primary function is to get traffic from neighborhoods and business areas to the arterial and major collector system; has slower speeds enhancing safety for pedestrians and bicyclists; on-street parking may be provided in urban areas; pedestrian and bicycle facilities are provided; bicycle facilities should be exclusive in urban areas and shared in rural areas; may be used by public transit in urban areas. Freight traffic tends to be destined for local delivery or local markets.	Primarily connects local roads and other minor collectors to major collectors and arterials. Connects local areas to local destinations.	1,250-5,000 (rural) 1,500-7,000 (urban)
Local Street	Primary function is to provide direct access to adjacent land uses; characterized by short roadway distances, slow speeds, and low volumes; offers a high level of accessibility; serves passenger cars, pedestrians, and bicycles, but not through trucks; may be used by public transit in urban areas; pedestrian facilities are provided in urban areas. Low volumes of freight traffic.	Primarily connects local areas to one another and the higher order system. May connect local destinations.	0-1,500 (rural) 0-2,000 (urban)

#### Roadway Design Standard

The County Roadway design standards implement the roadway functional classifications. Design standards address operational characteristics such as travel volume, operating speed, safety, and freight needs. The standards are necessary to ensure the street system that develops will be capable of safely and efficiently serving the traveling public, while also accommodating the orderly development of adjacent lands.

The County's roadway design standards are shown in Figures 5-2 through 5-6. The typical roadway cross sections include the following elements: right-of-way width, number of travel lanes, bicycle and pedestrian facilities, and amenities such as landscape strips. These figures are intended for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets. Tables 5-2 and 5-3 present the rural and urban standards, respectively, in tabular form. The roadway design standards provide general design parameters for county roads. Refer to Policy 4.2.3-E for landscape strip policy. The Section 1024.03 of the codified ordinances of Jackson County addresses variances to the County Road standard. Where a variance request is site specific and will not impact the County system beyond a localized area, no amendments to the TSP is required.

The design standard for higher order facilities in rural areas includes paved shoulders. The main purpose of the paved shoulders is to prevent conflicts between non-motorized travel and automobiles. Outside the MPO boundary, there are some roads that have very low traffic volumes, but are functionally classed as a higher order facility because of the connectivity function they serve. Standards that require wide paved shoulders, where the potential for auto vs. non-auto conflicts is low, are not consistent with TSP financing policies and strategies. Thus, on roads outside the MPO where traffic volumes are not expected to exceed 2,000 ADT within the planning horizon, the paved shoulder standard may be reduced or eliminated with approval from the County Engineer. On roads outside the MPO where traffic volumes are expected to be between 2,000-4,000 ADT within the planning horizon, the standard paved shoulder requirements may be reduced to 4 feet with approval from the County Engineer.

#### Corridor Management Planning

In some instances a road may have the proper functional classification but the design standards in the TSP may not suite a particular road corridor well. Direct application of the basic design standards, to a particular corridor, may result in a road project that does not effectively balance the TSP goals and policies because of site-specific issues such as existing development, topography, and safety considerations.

For example, there is an existing corridor management plan for Old Stage Road. This management plan reconciles the need for this corridor to serve as an important major collector linkage, while attempting to minimize adverse impacts to the existing rural residential development of the area. The Old Stage Road corridor management plan is adopted by reference and incorporated into the Jackson County TSP.

As future corridor management plans are developed, these plans should address how the plan accomplishes the goals and addresses the policies of the TSP. The plan should identify where deviations from the basic standards will occur and why these deviations are appropriate. When a corridor management plan is adopted, it should be incorporated by reference into this section of the TSP.

Figure 5-1 Functional Classification Plan

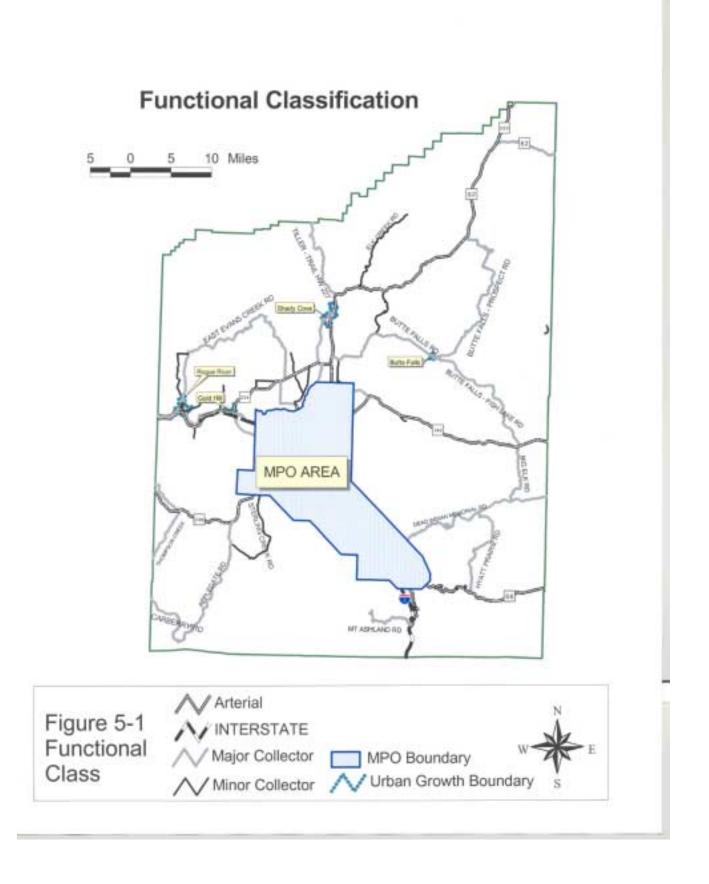
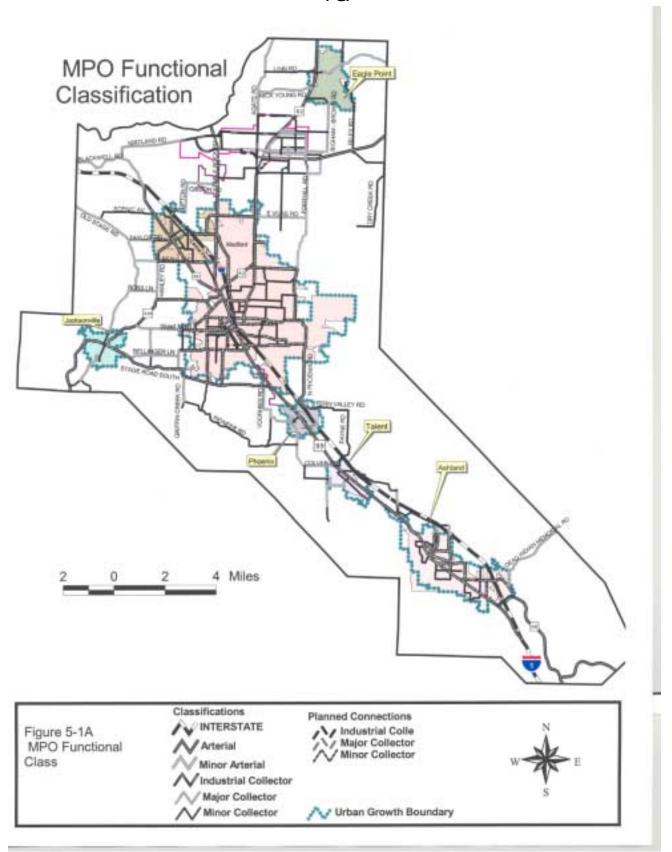
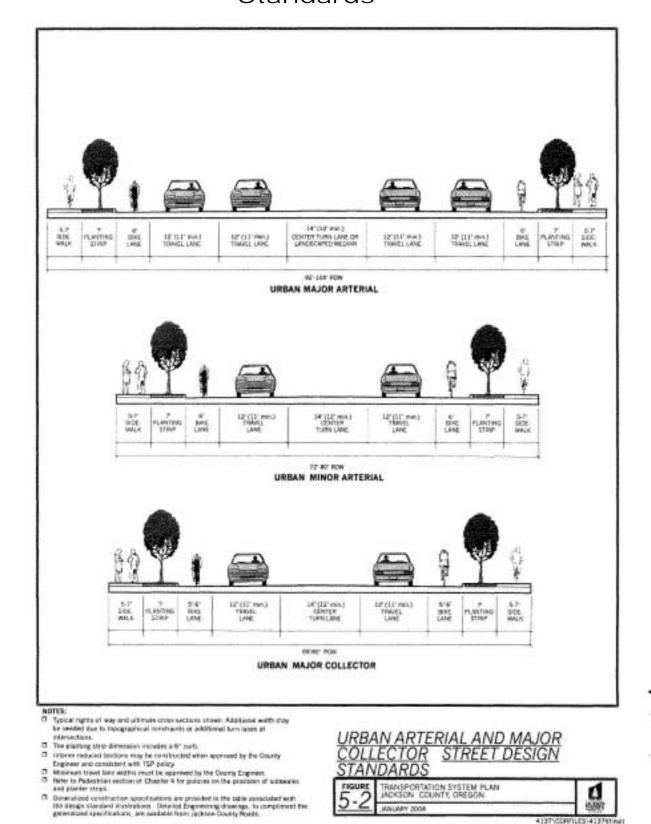


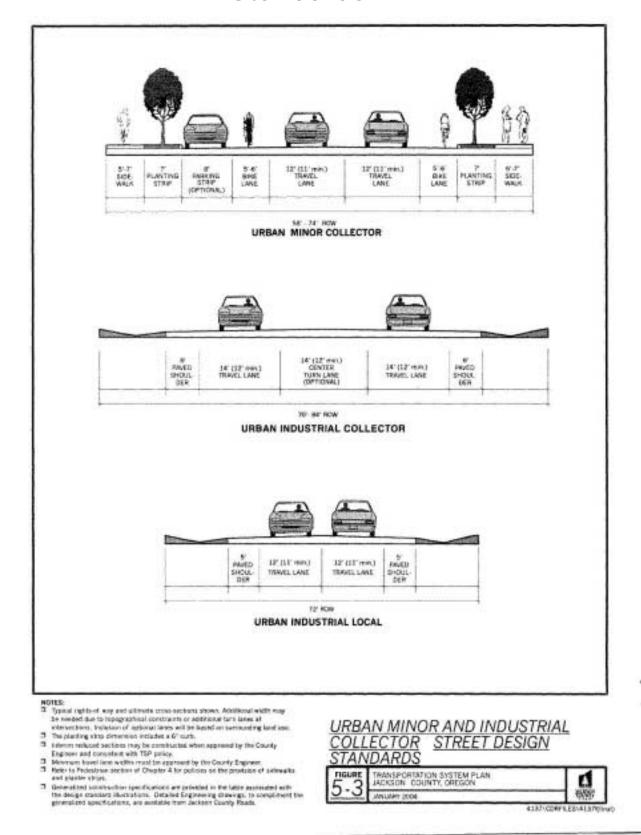
Figure 5-1a



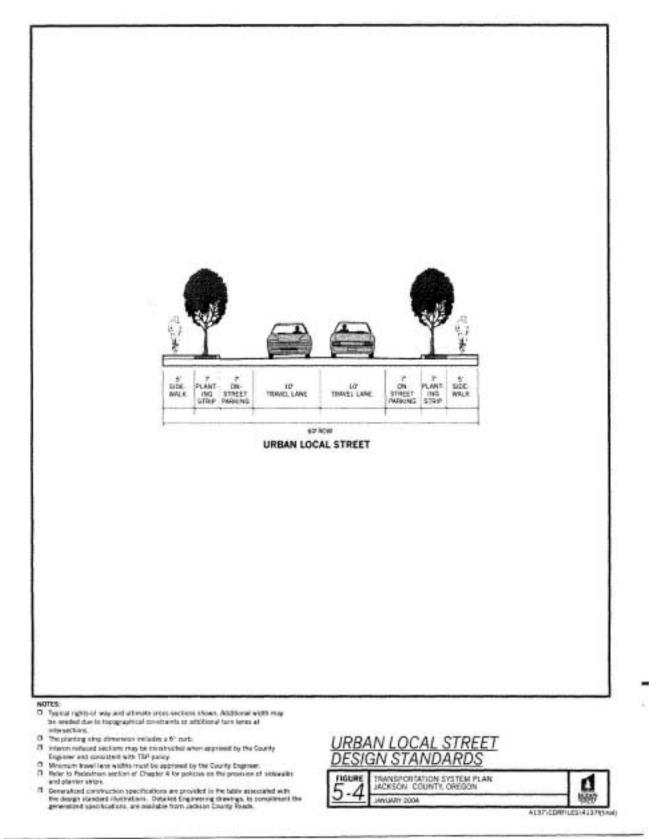
# Figure 5-2 Urban Arterial and Major Collector Street Design Standards



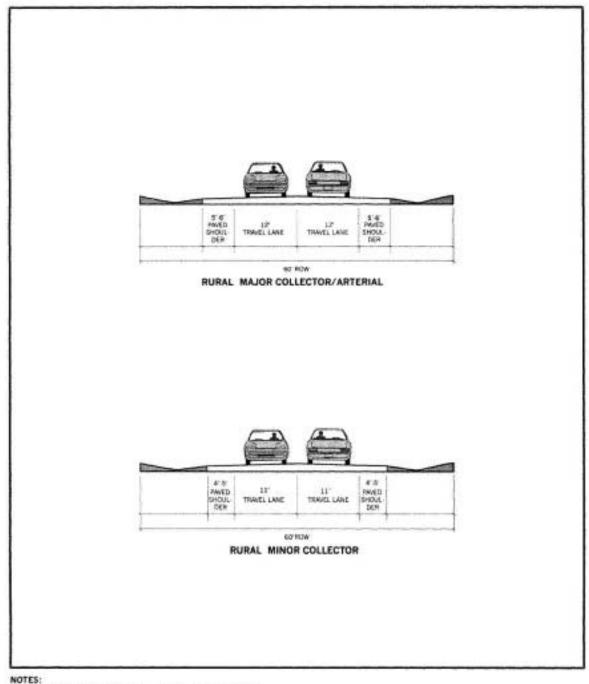
# Figure 5-3 Urban Minor Collector and Industrial Street Design Standards



# Figure 5-4 Urban Local Street Design Standards



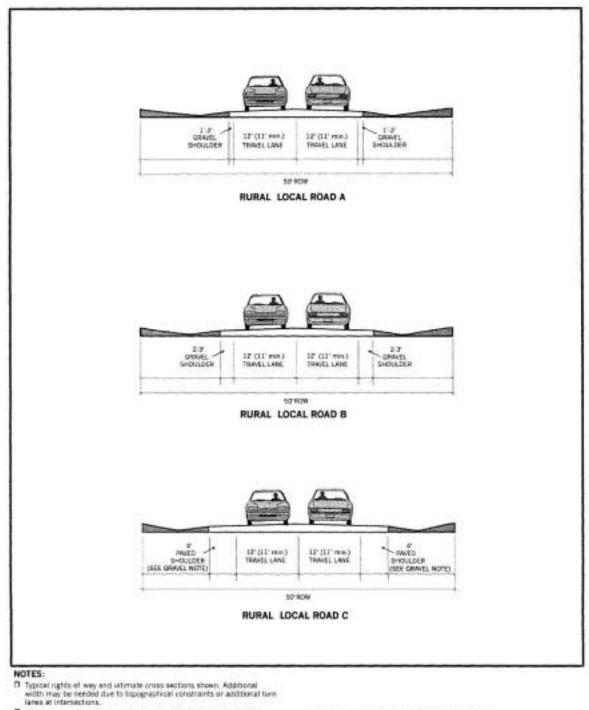
# Figure 5-5 Rural Collector/Arterial Roadway Design Standards



- D Typical rights-of way and ultimate cross-sections shown. Additional width may be received due to topographical constraints or additional turn lenes at intersections.
- Interest reduced sections may be constructed when approved by the Dounty Engineer. Refer to the discussion of shoulder widths in rural areas as an example of where reduced segments are appropriate.

   Minimum travel lane widths must be approved by the County Engineer.
- D Generalized construction specifications are provided in the table associated with the decign standard illustrations. Detailed Engineering drawings, to compliment the generalized specifications, are available from Jackson County Roads.

## Figure 5-6 Rural Local Roadway Design Standards



- Interim instruct sections may be constructed when approved by the County Engineer. A gravel surface for the Local Road A shoulder may be substituted with approval from the County Engineer.
- II Minimum travel lens widths must be approved by the County Engineer.
- Consensityed construction specifications are provided in the table associated with the design standard invisinations. Detailed Engineering drawings, to complement the generalized specifications, are available from Jackson County Hoads.

TABLE 5-2 RURAL COUNTY ROADWAY STANDARDS AND SPECIFICATIONS

	Local Road A	Local Road B	Local Road C	Minor Collector	Major Collector	Arterial
Typical ADT (Average Daily Traffic)	0-200	200-800	700- 1,500	1,250-5,000 4,500-15,000		>5,000
Design Speed -Minimum -Recommended	25 30	30 35	30 35	40 45	45 50	50 55
Lane Width -Minimum  -Recommended	11 ft. 12 ft.	11 ft. 12 ft.	11 ft. 12 ft.	11 ft.	12 ft. 12 ft.	12 ft. 12 ft.
Shoulder Width -Minimum  -Recommended	1 ft. 2 ft.	2 ft. 3 ft.	4 ft.	4 ft. 5 ft.	5 ft. 6 ft.	6 ft.
Shoulder Surface	Gravel	Gravel	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.
Pavement Width	24-28 ft. <b>2</b>	26-30 ft. <b>0</b>	30-32 ft. <b>❷</b>	30-32 ft. <b>❷</b>	34-36 ft.	36 ft.
Recommended Minimum Access Spacing 6	N/A	N/A	N/A	150 ft.	225 ft.	300 ft.
Surface Type	Oil Mat	Oil Mat	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.
Minimum ROW Width	50 ft.	50 ft.	50 ft.	60 ft.	60 ft.	60 ft.
Horizontal Curve Radius	190′ 275′	275′ 385′	275′ 385′	470′ 675′′	675′ 820′	820′ 955′
Minimum Stopping Sight Distance	200 ft.	225 ft.	225 ft.	325 ft.	400 ft.	450 ft.
Maximum Grade	15%	12%	12%	9%	9%	9%
Minimum Vertical Distance	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
Load Design (Structures)	HS 20- 44	HS 20- 44	HS 20-44	HS 20-44	HS 20-44	HS 20-44
Applicable Specifications	4	4	4	4	4	4

#### NOTES:

- Policy 4.2.1-R will be applied to projects located within an Urban Growth Boundary or Urban Containment Boundary.
- The urban roadway standard for the corresponding functional classification may be built if the County Engineer determines that the urban standard is more appropriate for the road section. If an urban major arterial is considered most appropriate, additional land use planning actions may be required as part of project development.
- Design for Recommended Standard unless approved by the County Engineer
- Pavement width depends on design lane and shoulder widths
- Lower spacing may be allowed when supported by a traffic study and approved by the County Engineer, or when no other public road access is possible.
- Roads will be constructed to standards approved by the Jackson County Engineer.
- A gravel shoulder may be substituted with approval from the County Engineer.

TABLE 5-3 URBAN COUNTY STREET STANDARDS AND SPECIFICATIONS

	Local Street	Industrial Local	Industrial Collector	Minor Collector	Major Collector	Minor Arterial	Major Arterial
Typical ADT (Average Daily Traffic)	0-2,000	0-3,000	2,750- 15,000	1,500- 7,000	3,500- 14,000	5,000- 18,000	>15,000
Design Speed -Minimum -Recommended	25 25	25 25	30 35	25 35	40 45	45 50	50 55
Number of Travel Lanes	2	2	2 or 3	2	3	3	5
Lane Width -Minimum -Recommended	10 ft. 10 ft.	11 ft. 12 ft.	12 ft. 14 ft.	11 ft. 12 ft.			11-11-12-11-11 ft. 12-12-14-12-12 ft.
Bike Lanes	No	No	No	4-5 ft.	5-6ft.	6ft.	6ft.
On-Street Parking, Width	Both Sides, 7ft.	No	No	One Side, 8ft.	No	No	No
Pavement Width	34 ft.	34-36 ft. <b>2</b>	36-54 ft. <b>⊘</b>	42-44 ft. <b>❷</b>	44-50 ft. <b>2</b>	46-50 ft. <b>❷</b>	68-74 ft. <b>❷</b>
Sidewalk Width	6 ft.	6 ft. Paved Shoulder	6 ft. Paved Shoulder	5-7 ft. <b>❶</b>	5-7 ft. <b>0</b>	5-7 ft. <b>0</b>	5-7 ft.
Landscape Strip Width	7 ft.	None	None	7 ft.	7 ft.	7 ft.	7 ft.
Right-of-Way Width	60 ft.	74 ft.	74 ft.	66-74 ft.	68-80 ft.	70-80 ft.	92-104 ft.
Recommended Minimum Access Spacing®	N/A	N/A	200 ft.	100 ft.	225 ft.	300 ft.	300 ft.
Surface Type	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.	H.M.A.C.
Horizontal Curve Radius	190′	190′	275′ 385′	190′ 385′'	470′ 675′'	675′ 820′	820′ 955′
Minimum Stopping Sight Distance	200 ft.	240 ft.	240 ft.	225 ft.	325 ft.	400 ft.	450 ft.
Maximum Grade	15%	12%	12%	9%	9%	9%	9%
Minimum Vertical Distance	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.	16 ft.
Load Design (Structures)	HS 20-44	HS 20- 44	HS 20- 44	HS 20- 44	HS 20-44	HS 20-44	HS 20-44
Applicable Specifications	9	4	4	0	9	9	0

#### NOTES:

- Policy 4.2.1-R will be applied to projects located within an Urban Growth Boundary or Urban Containment Boundary.
- Design for Recommended Standard unless approved by County Engineer
- Width depends on design widths for travel lanes and sidewalks.
- Lower spacing may be allowed when supported by a traffic study and approved by the County Engineer, or when no other public road access is possible.
- Roads will be constructed to standards approved by the Jackson County Engineer.

#### **Access Management**

Safety is the first priority for access management. Access permits to the County Road system should not be issued where safe access cannot be assured. Generally, access management enhances safety by minimizing the number and type of potential conflict points. Accesses to state facilities are governed by ODOT's access standards. ODOT's standards may also apply to access spacing on County facilities located within the management area of a freeway or expressway interchange, when the County and ODOT jointly adopt an interchange management plan. Access management may be included as part of a corridor management plan; access management as part of an adopted corridor management plan supercede any additional access management provisions for the corridor.

Managing access to the County's road system is necessary to preserve the capacity of the County's arterial and collector system. Capacity is preserved by minimizing the number of points where traffic flow may be disrupted by traffic entering and exiting the roadway. Jackson County's TSP takes several approaches to access management for capacity preservation. The strategies are differentiated by geography and facility function.

Access management will be administered through the road approach and land use permitting processes. Land use permits that require commercial or aggregate site plan review and/or Type 3 or 4 uses should have access points analyzed and conditions of approval should limit undue impacts on road capacity. Inside a UGB, the County will apply the city's access management provisions, consistent with Policy 4.2.1-R and its associated strategies. White City has its own access management requirements, see the White City TSP and the LDO for access requirements within the White City Unincorporated Community Boundary

All accesses to facilities under County jurisdiction, regardless of location or functional classification, are subject to safety analysis and Priority Level 1 of the Jackson County Access Management Guidelines. Priority Level 2 and Level 3 apply to all facilities under County jurisdiction with a functional classification of minor collector or higher within the MPO or within any UGB outside the MPO, consistent with Policy 4.2.1-U. If the basic access management provisions are not well suited to a particular development proposal then a site-specific circulation plan that is prepared by a registered professional engineer with expertise in transportation may be substituted. This type of circulation plan must show the net effects on the capacity of the system and safety hazards are no greater than with application of the basic provisions.

#### Jackson County Access Management Guidelines:

The access management guidelines are hierarchically prioritized according to the system below (Level 1 is the highest priority). Where an access request would support a higher priority guideline at the expense of a lower priority guideline, the access that accomplishes the higher priority should be promoted.

#### **Priority Level #1:**

#### **Avoid Negative Effects on Intersection Operations**

Certain conditions, such as accesses that are too close to intersections with large peak hour queues, cause safety hazards and poor intersection operations. Taking applicable factors into consideration, such as parcel configuration and opportunities for shared access, access locations should minimize adverse impacts on intersection operations. Specific access designs and turning movement restrictions may be required to minimize adverse effects on intersection operations, such as an access with right-in and right-out turning movements only.

#### **Priority Level #2:**

#### **Minimize Access Points**

Allow only one access point for each parcel or parcels under the same ownership. When a property has frontage on two or more roadways, provide access from the roadway with the lower functional classification. More than one access may be granted if it can be determined that it will not negatively affect the safety and efficiency of the roadway within the planning horizon and that the additional access(es) are reasonably necessary for circulation.

#### **Access Alignments**

When feasible, road approaches should be lined up with approaches on the opposite side of the roadway to minimize left turn conflicts.

#### **Shared Access**

The use of a shared access point for adjacent property owners is encouraged. Costs incurred by property owners in the creation of a shared access point may be eligible for SDC credits as a financial incentive to help maintain the capacity of the street. Jackson County Roads would determine the value for any credits.

#### **Priority Level #3**

#### **Access Spacing**

Tables 5-2 and 5-3 provide the recommended minimum access spacing for all driveways and private roads on the applicable facilities. The recommended spacing may be reduced when approved by Jackson County Roads. Reductions in the recommended spacing will consider site specific issues including but not limited to: no other public road access is possible, adverse impacts to access management priorities levels #1 or #2, topographic constraints, and sight distance constraints.

#### **Traffic Operations Standards**

As stated in the TSP's Goals and Policies section, the County is committed to providing a safe, convenient, and economical transportation system. The TSP includes performance standards that set a maximum volume-to-capacity (v/c) ratio of 0.85 outside the MPO area and a v/c ratio of 0.95 inside the MPO for all County-maintained intersections during a weekday peak hour. Traffic operations standards balance the need for convenient and safe operations for all transportation modes against the need to efficiently use public investment in the transportation system. Adopting a performance standard will also provide a baseline to assess the need for future transportation improvements to accommodate new development.

There are two standard ways of measuring facility performance Level of Service (LOS) and the volume to capacity ratio (v/c). LOS measures delay, whereas v/c measures the amount of roadway capacity being used. The two measurements often correlate; intersections approaching capacity with a v/c ratio near 1.0 are likely to have a poor LOS (long delays). However, depending on how the operations are measured, a particular intersection may meet one performance measurement but not the other. The County has chosen to employ the v/c measurement standard for a couple of reasons. The v/c measurement is employed by ODOT. This will result in consistent traffic analysis between the County and ODOT, simplifying coordination. The v/c ratio is also conceptually simpler. This should make application of the adopted standards somewhat easier in a public hearing format.

At intersections where one or more approaches is maintained by a city or ODOT, the more restrictive of the County's or other agency's performance standards will be applied. For signalized intersections, the v/c ratio is based on the intersection's critical movement(s). For unsignalized intersections, the ratio is based on the overall intersection operation. All intersection operations analysis will follow the methodology described in the most recent edition of the Highway Capacity Manual.

The County is adopting a lower v/c ratio outside the MPO boundary so that transportation system standards will not encourage development to cause urban traffic patterns in rural areas. The higher v/c in the MPO will allow high capitalization of the public investment on urban facilities. A v/c of .95 in the MPO area will allow for a modest level of congestion at peak hours within the MPO area. While acceptance of modest congestion may inconvenience some motorists, this inconvenience can actually encourage an efficient transportation system. For example, some congestion encourages the use of public transportation and flexible work schedules, maximizing the use of public transportation investments over time.

#### Roadway Projects

Jackson County will undertake three main categories of roadway projects over the course of the planning horizon. Planning Projects address system needs or system goals that require detailed and specific studies that are too extensive for inclusion in the initial system plan. Corollaries to Planning Projects are Long-term potential corridor designations. These corridors are identified through a transportation planning process that anticipates the corridor will provide critical long-term connectivity, but for which construction projects are not anticipated to be necessary within the planning horizon. Roadway Improvement Projects are systemic in scale and usually provide noticeable systemic improvements at project completion. Roadway Betterment and Maintenance Projects are local in scale and usually make improvements that are not detectable on a systemic level at project completion.

#### Roadway Betterment and Maintenance Projects

Since individual Roadway Betterment and Maintenance Projects are too small to have significant measurable impacts on the system, these projects are not detailed in the TSP project list. However, Roadway Betterment and Maintenance Projects constitute a significant portion of County expenditures on the transportation system. These projects are critical to the overall health of the system.

Generally, Roadway Betterment and Maintenance Projects do not significantly alter the horizontal alignment, vertical alignment, or the cross section of a roadbed for a large segment of the road. The following are examples (not an all inclusive list) of Roadway Betterment and Maintenance Projects that are too small in scale and/or localized to be included as Roadway Improvement Projects in the TSP.

- 1. Chip sealing and pavement overlays.
- 2. Channelization projects and minor realignment projects, as defined in OAR 660-12-0065, at unsignalized intersections.
- 3. Bridge replacements where the existing bridge is consistent with the functional classification design standards for the applicable road segment; minor localized road realignments that would normally be associated with this type of bridge replacement.
- 4. Accessory Transportation Improvements, as defined in OAR 660-12-0065.

While roadway betterment and maintenance projects may be too small for inclusion in the TSP, transportation projects, particularly those on resource zoned lands, should be coordinated with Jackson County Planning to determine whether any land use review is required for impacts to farm and forest land.

#### Planning Projects and Long Term Potential Corridors

Planning Projects address system needs or system goals that require detailed and specific studies that are too extensive for the original TSP development. Planning projects are one of the most challenging types of transportation projects because the outcome is uncertain. For example, the planning projects identified in this plan are presented in the roadway system section, but the outcome of a planning project may result in a solution that is not a roadway solution at all. Some planning projects are very costly and never make it through the final adoption process. This high degree of uncertainty limits available funding sources. There are some funding opportunities for planning projects in Oregon because of the prominence of statewide planning and the coordination between the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT).

While opportunities for external funding for planning projects may be limited, successfully competing for State and Federal capital improvement funding is often dependent on submitting projects that have completed the local planning process. If the local planning process has developed a broad base of community support, then the project will be even more competitive in Federal and State applications. Thus, the long-term outlook for the County's transportation system will depend on the effective management and allocation of transportation planning resources to complete the planning projects, so that capital construction project funding can be procured.

This section of the plan lists the transportation planning projects that are recommended over the next twenty years. This section also includes Long-Term Potential (LTP) corridors. These are corridors that have been identified through a TSP process and have been determined to be a critical corridor for a potential future transportation connection. Most of the planning projects are a re-formulation of planning projects identified in the plan and policy review portion of the TSP development.

#### 1. Highway 62 Expressway

The Medford TSP plans a new four-lane arterial Statewide Highway that would have an Oregon Highway Plan designation as an Expressway. The need for this facility was identified in the Medford TSP to address congestion around the southern terminus of Highway 62. In the Medford TSP, the expressway ends at Vilas Road. The expressway would be designed to handle over 30,000 ADT, whereas the capacity of Vilas Road is about 14,000 ADT. The Highway 62 Expressway, as planned in the Medford TSP, would be grossly underused because any through traffic would be forced to use a facility with much less the available capacity (Vilas Road).

This planning project carries out Policy 4.3.3-B and would plan the entire Highway 62 Expressway corridor to assure that this facility is well connected with the rest of the system. This is a very extensive project for both Jackson County and ODOT. Planning this facility requires an Environmental Impact Statement. Construction of any portion of the expressway that is north of the Medford UGB requires a legislative amendment to the Jackson County Comprehensive Plan. This legislative action would require goal exceptions and an amendment to the TSP. The Jackson County TSP did not rely on construction of the Expressway; an amendment to the TSP would need to address impacts of the expressway on existing facilities and planned projects. A review and analysis of land use impacts near the expressway should also be conducted to identify land-use protection measures

that may be necessary to assure available capacity for through traffic is not consumed by new local traffic.

Also, this project would have extensive impacts on the regional system, which is planned through the Regional Transportation Plan (RTP) developed by the Metropolitan Planning Organization (MPO). The current plan does not include any portion of this facility. The County may wish to consider postponing this planning project until the Medford portion of the facility has been included in the RTP. Then the impacts on the regional system for extension of this facility north of Vilas Road will need to be carefully coordinated with the Regional Transportation Plan.

# 2. White City/I-5 Freight Mobility Study/Seven Oaks Interchange

This refinement plan would develop recommendations for improving truck circulation between I-5 and both the White City industrial area and Highway 140. RVCOG has been conducting a freight study concurrently with the County's development of the TSP. This freight study identifies significant needs for freight mobility improvements from both the White City industrial area and from Highway 140 to I-5. The freight needs have also been identified through several County-planning processes. The desire for a good route from Klamath Falls to the Coast has been popular for several decades. Delays to trucks occur often due to congestion on Highway 62, and the out-of-direction travel required on alternative routes. See Policy 4.3.3-A in Chapter 4.

The County's TSP is applying a short term and long term strategy to address these needs. The short-term strategy employs some small-scale site-specific construction projects to improve freight mobility on the existing Kirtland-Blackwell route. The short-term strategy addresses some of the intersection geometry problems and turning movement issues. The short-term strategy does not address the out-of-direction travel issues, however. The out-of-direction travel issue is especially apparent for connections to Highway 140. This planning project provides the long-term strategy to provide a long-term solution to freight issues for travel from the Seven Oaks interchange to Highway 140 and freight mobility to the White City industrial area. A direct road extension from Highway 140 to the Seven Oaks interchange would have to address severe environmental constraints (vernal pools) and Statewide Planning Goal 3.

# 3. Jacksonville Arterial Connector Refinement Plan

The City of Jacksonville TSP calls for an arterial connector around the north and west sides of the city to reduce through traffic – particularly truck traffic – through the City's historic downtown area. A policy in the previous transportation element of the Jackson County Comprehensive Plan supported the general concept, but not any particular alignment. The needs section of the County TSP identifies the need to coordinate with the Jacksonville TSP and that through truck traffic in downtown Jacksonville is an important livability problem for the City of Jacksonville.

This refinement plan would need to carefully balance Statewide Planning Goals 3, 5 and 12. Any effective solution that would reduce truck traffic in downtown Jacksonville is likely to be very expensive. If a road project were developed from the planning project and significant federal funds were going to be spent on its construction, then a draft EIS would need to be completed. The plan should include an access management plan to control access to the facility, and to preserve rural lands adjacent to the connector in any areas outside the Jacksonville UGB. If the outcome of the planning project does not result in a construction project, it should result in a long-term potential corridor designation. See Policies 4.3.3-C and 4.2.1-M in Chapter 4.

## 4. Highway 62 Streetscape and Access Management Study

Highway 62 forms the main commercial street of White City, acts as a barrier between the two sides of White City, and serves a high volume of through traffic. The Oregon Transportation Commission has designated the entire length of Highway 62 within White City as an expressway, which serves the through trip function, but which is not necessarily compatible with commercial access and east-west connectivity needs. In 1990, the RVCOG led the development of an access management plan for Highway 62 between Medford and Eagle Point; however, the White City portion of the plan now requires updating as a result of the adoption of an updated comprehensive plan for White City, which significantly increases White City's anticipated future population. In addition, ODOT's access management rules have changed significantly since 1990. This project would develop a plan for the Highway 62 corridor through White City that would identify access management needs, streetscape enhancements, pedestrian crossing treatments, sidewalk and bicycle facility improvements, and transit needs. The plan should include ODOT recognition of the White City to VA DOM path as a separated non-motorized pathway and should include an improvement plan for this pathway. The plan should consider both local and through traffic needs, and should consider the potential impacts of a Highway 62 Unit 3 Expressway.

#### 5. South Stage Road Long-Term Potential Corridor

The City of Medford's TSP contemplates South Stage Road being extended from its current terminus at Highway 99 to east of I-5, with an overcrossing of the freeway. This corridor overlay protects the area where an arterial extension of South Stage Road east of I-5 to North Phoenix Road (not including the freeway overcrossing) would be located.

This corridor overlay will protect the area necessary to connect the facility contemplated in the Medford TSP. From a connectivity standpoint, an arterial in this area would provide a well-spaced connection across I-5 and Bear Creek between the South Medford Interchange and the Fern Valley Interchange. The ongoing development in southeast Medford and northeast Phoenix is going to continually increase the need for an additional connection in this area. While construction of any facility is not expected to be necessary within the planning horizon, preservation and recognition of this connection is important now to protect what is likely to be a critical connection some time in the future. This corridor overlay is established pursuant to TSP Policy 4.2.1-M.

This area is currently zoned EFU and therefore is well protected from residential and commercial development under current EFU land use protections. However, this protection is not entirely complete. EFU allows for substantial structural improvements to occur when in conjunction with a farm use. Prevention of development that would be incompatible with a future transportation connection within this corridor is the primary reason for this overlay. Also, the statutory protection of these lands from residential and commercial development could be changed at any legislative session, in which case this corridor overlay would become a vital local protection.

At such time as there is a need to plan a project to provide the anticipated connection, the TSP will need to be amended to remove this corridor and replace it with a project. Until such an amendment is completed and the specified project is added to both the County TSP and the RTP, an extension of South Stage Road to North Phoenix Road is not a planned project. Because this overlay protects a transportation corridor outside an acknowledged urban growth boundary across land planned for exclusive farm use, an exception to Statewide Planning Goal 3 would need to be taken and the County's TSP amended to plan a road facility in this corridor.

Figure 5-7 Planning Project Areas

# **Planning Projects and LTP Corridors**

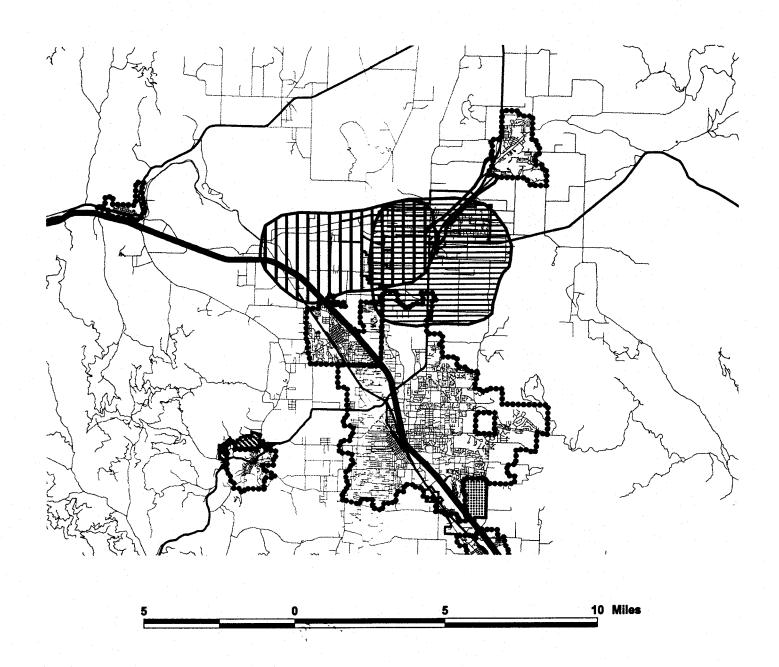


Figure 5-7
Planning Projects
and LTP Corridors

Planning Projects
#1 Highway 62 Expressway
#2 White City/I-5 Freight Mobility Study/Seven Oak
#3 Jacksonville Arterial Connector Refinement Plan
#4 Highway 62 Streetscape and Access Management St
#5 South Stage Road Long-Term Potential Corridor
All Streets
Urban Growth Boundary
Urban Containment Boundary
UUCB
UCB



#### Roadway Improvement Projects

The alternatives analysis in the TSP produced Roadway Improvement Projects to address the needs identified during the TSP process. These projects provide new roadway connections, widen roadways to accommodate future traffic volumes, and redesign intersections to address future operations problems. As described in the *Background Document*, projects were identified to address existing and future transportation needs. Many of the projects are in the draft 2004-2007 STIP and the Regional Transportation Plan that affect state and county facilities. Transportation needs were identified through the TSP process for which projects had not previously been developed. The alternative analysis developed new projects to address these needs. The project list began with a consultant recommended alternative, which was refined by the Technical Advisory Committee, and will be subject to further refinement through public meetings and the TSP adoption process.

Table 5-4 lists the Roadway Improvement Projects identified through the County TSP process. The table also lists the Roadway Improvement Projects outlined in the RTP and STIP that pertains to County facility or involvement. Figure 5-8 shows the location of the projects. The financing plan in Chapter 6 estimates costs for, and prioritizes each project into Tier 1 (financially constrained) and Tier 2 (unfunded). Brief descriptions of the projects are provided below.

TABLE 5-4 ROADWAY IMPROVEMENT PROJECTS

Map Key	Project	Section	Description	Project Type
	Tier	1 Short and Medium Term (fina	ancially constrained through 2013)	
1	Avenue A	Atlantic to Kershaw	New 2-Lane Rural Minor Collector	Capacity
2	Agate Road	HWY 62 to Ave G	New 3-lane Industrial Collector	Capacity
3	Antelope Road	Agate Road	New traffic signal	Capacity
4	Antelope Road	Table Rock to 7 <sup>th</sup>	Widen to 5 lanes with bike lanes, sidewalks	Capacity
5	Atlantic Avenue	Avenue A to Avenue G	New 3-lane urban major collector	Capacity
6	Avenue G	Agate to Kirtland Road	New 3-lane urban industrial collector	Capacity
7	Avenue G	HWY 62 to Atlantic	New 3-lane urban major collector	Capacity
8	Avenue H	Wilson Way to WCUUCB	New Two-lane urban minor collector	Capacity
9	Beall Lane	HWY 99 to Merriman	Widen to 3 lanes with bike lanes, sidewalks	Capacity
10	Fern Valley Road	Bear Creek Bridge	Widen bridge structure	Capacity
11	Foothill Road	Corey to Atlantic	New 2-lane rural major collector	Capacity
12	Highway 140	Kershaw Road	Advance warning beacon at intersection	Safety
13	Highway 238	Bybee Corner	Improve intersection alignment	Modernization
14	Highway 238	Ross Lane North to Bybee Corner	Widen to 2 lanes with bike lanes, (on Rossanley) sidewalks	Capacity
15	Highway 62	Agate Road	Realign intersection and signalize	Safety & Operations
16	Highway 62	Highway 140	Widen intersection approaches	Capacity
17	Jacksonville Highway	Oak Grove to Elm	Widen to 3 lanes with bike lanes, sidewalks	Capacity
18	Leigh Way	Agate to Antelope	New 3-lane roadway w/shoulder bikeway	Capacity
19	Lozier Lane	Stewart to Jacksonville Hwy	Widen to 3 lanes with bike lanes, sidewalks	Capacity
20	Ross Lane North	McAndrews to Rossanley	Widen to 3 lanes with bike lanes, sidewalks	Capacity
21	Stewart Avenue	Hull Rd to Thomas	Widen to 3 lanes with bike lanes, sidewalks	Capacity
22	Table Rock Road	Wilson to Antelope	Widen to 5 lanes with bike lanes, sidewalks	Capacity
23	Table Rock Road	Bear Creek to Pine/Biddle	Widen to 3 lanes with bike lanes, sidewalks	Capacity
24	Table Rock Road	Wilson Road	New traffic signal	Operation
25	Pine Street	Haskell Street to Hanley	Add CTL bike lanes and sidewalks	Capacity 7 Bike Ped
26	White City/I-5 Freight Plan Implementation	Highway 140 to I-5	Placeholder for Freight Mobility Improvement Projects from Planning Project	Freight

Map Key	Project	Section	Description	Project Type
		Tier 1 Long Term (financially	constrained 2014-2023)	
27	Bursell Road	Bursell Road/Beall Lane	New traffic signal	Operation
28	Fern Valley Road	North Phoenix Rd	New traffic signal	Operations
29	Foothill Road	McAndrews to Delta Waters	Widen to 3 lanes with bike lanes, sidewalks	Capacity
30	Foothill Road	Hillcrest Road to McAndrews	Widen to 3 lanes with bike lanes, sidewalks	Capacity
31	Hanley Road	Beall to Pine	Widen to 3 lanes with bike lanes, sidewalks	Capacity
32	Kings Hwy	South Stage Rd to Medforf UGB	Widen to 3 lanes with bike lanes, sidewalks	Capacity
33	Lakeview Drive	Lakeview to McLoughlin	New 2-lane rural minor collector	Capacity
34	South Valley View Road	I-5 to Highway 99	Widen to 5 lanes with bike lanes, sidewalks	Capacity & Bike/Ped
35	Vilas Road	Haul Rd. to Crater Lake Ave.	Widen to 5 lanes with bike lanes, sidewalks	Capacity
36	White City/I-5 Freight Plan Implementation	Highway 140 to I-5	Placeholder for Freight Mobility Improvement Projects from Planning Project	Freight
37	Wilson Way	Avenue H to Dutton RD	Upgrade to Urban Minor Collector in WCUUCB and Rural Minot Collector Outside WCUUCB	Capacity

TABLE 5-4 ROADWAY IMPROVEMENT PROJECTS (cont'd.)

	TABLE 5-4 ROADWAY IMPROVEMENT PROJECTS (contra.)				
Map Key	Project	Section	Description	Project Type	
	Tier 2 (unfunded)				
38	Antelope Road	Highway 62	Widen intersection approaches	Capacity	
39	Eagle Mill Road	South Valley View to Oak	Upgrade to rural minor collector	Capacity & Bike/Ped	
40	Gibbon Road	Upton to Table Rock	Widen to 3 line urban major collector	Capacity & Bike/Ped	
41	Peninger Road	Pine St to Expo Park	Widen to 3 lanes with bike lanes, sidewalks	Capacity	
42	Rogue River Drive	M.P. 5 to Shady Cove	Upgrade to Rural Major Collector	Capacity & Bike/Ped	
43	Sage Road	Posse to Ehrman	Widen to 3 lanes with bike lanes, sidewalks	Capacity	
44	West Antelope Road	Kirtland Road	Realign intersection to make the south and west approaches the through movement	Operations/ Freight	
45	West Dutton Road	Terminus to Agate	New 2-lane urban industrial collector	Capacity	
46	Wilson Way	Avenue G to Avenue F	New 2-lane urban minor collector	Capacity	

UCB= Urban containment boundary

Figure 5-8 Roadway Improvement Plan

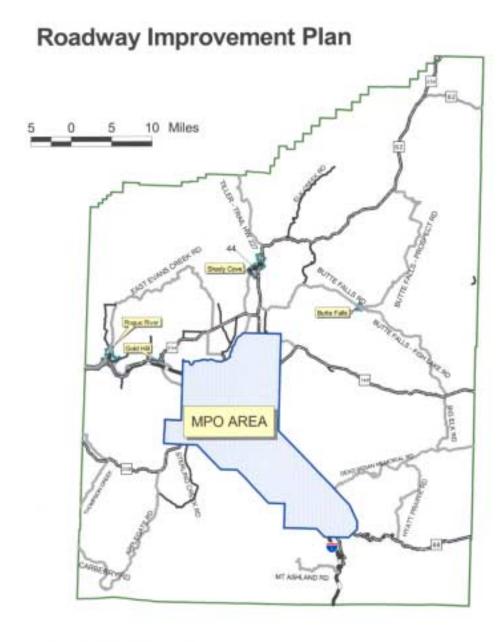
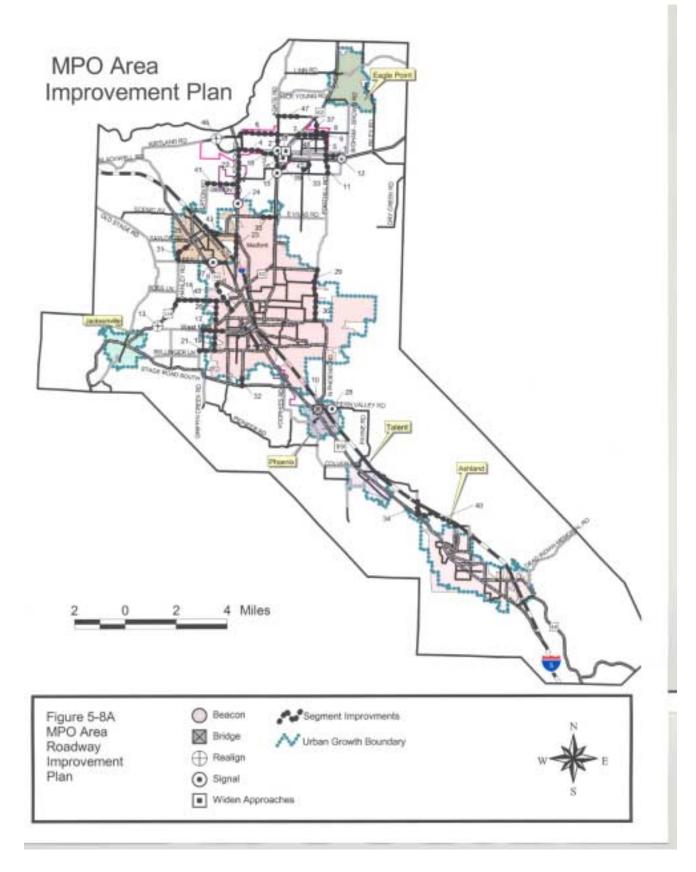




Figure 5-8a



# Tier 1 Short and Medium Range:

#### 1. Avenue A (Atlantic to Avenue A)

This section of Avenue A is currently a gravel road in a dedicated Right-of-Way, but the County does not maintain the road. This project has been prioritized for CMAQ funding because of the air quality problems caused by the gravel road. The functional classification map designates this section of Avenue A as a minor collector, but the minor collector designation will not apply until the project is complete and the County accepts maintenance of the facility.

## 2. Agate Road (HWY 62 to Avenue G)

Freight traffic on Agate is expected to increase throughout the planning horizon. There are already several accesses along Agate Road in this area and through freight traffic will be hampered by local traffic without the addition of a center turn lane. This project will add a center turn lane and bring Agate Road up to the local industrial collector standard. It is important to note that this is the 'minimal' work that is expected on this road segment in the planning horizon. Outcomes of both the White City Freight Study and the Highway 62 Expressway planning projects may alter this project in the future.

#### 3. Antelope Road/Agate Road Signal

The future conditions analysis of the TSP identified intersection operations failure at this intersection, consistent with expectations in the RTP. The project would signalize the Antelope Road/Agate Road intersection. The 2023 weekday p.m. peak hour operation of the traffic signal is anticipated to be at LOS "B" with a v/c ratio of 0.60. Thus, significant capacity would exist beyond the planning horizon. Also, capacity would be available to address the short-term problem of freight mobility from I-5 to Highway 140.

# 4. Antelope Road (Table Rock to 7th)

This RTP project widens Antelope Road to five lanes, with bike lanes and sidewalks, between Table Rock Road and 7<sup>th</sup> Street. This project will improve freight mobility on this road section and will compliment the Leigh Way Extension.

#### 5. Atlantic Avenue (Avenue A to Atlantic)

This section of Atlantic Avenue has a rural cross-section. As part of Urban Renewal in White City, this street will be upgraded to the Urban Major Collector standard with three lanes bike lanes and sidewalks.

## 6. Avenue G (Agate to Kirtland)

To improve truck mobility in the White City industrial area, this project reconstructs most of Avenue G and provides a direct connection from Avenue G to Kirtland Road.

The realignment of Avenue G provides a direct connection to Kirtland Road. This improvemment would cross the Ken Denman wildlife refuge. This is a Goal 5 protected resource and road building is listed as a conflicting use. A new ESEE would need to be completed to amend the County's acknowledged Goal 5 plan to allow construction of this facility. The Denman Wildlife Refuge is owned and managed by the Oregon Department of Fish and Wildlife, so the Goal 5 amendment would need to be well coordinated with ODFW's management goals. Also, there are wetlands in the vicinity that may prove challenging for this project. A detailed wetlands assessment would need to be conducted as part of project development.

This project is one of three projects that comprise the TSP's short-term solution for improving freight mobility from White City to I-5. The other two projects are the Leigh Way Connection and the realignment of the Kirtland – Antelope intersection. The Avenue G project will be completed first. The traffic flows will then be reanalyzed to determine the extent to which the Avenue G improvements are drawing traffic away from Antelope Road. Then the Leigh Way Connection will be built. Traffic flows will be reanalyzed to see how much traffic has moved back to Antelope west of 7<sup>th</sup>. Then the Kirtland-Antelope intersection will be reanalyzed to determine if the dominant movement has shifted from through on Kirtland to westbound from Antelope. If the dominant movement has not shifted then the intersection at Kirtland and Antelope will be left as-is until completion of the freight planning project. If the dominant movement has shifted to westbound from Antelope as a result of the Leigh Way Connection then the Kirtland-Antelope intersection will be realigned to make the westbound on Antelope the through movement.

# 7. Avenue G (HWY 62 to Atlantic)

This section of Avenue G has a rural cross-section. As part of Urban Renewal in White City, this street will be upgraded to the Urban Major Collector standard with three travel lanes, bike lanes and sidewalks. This project should include some specific design elements near the new middle school. These design elements should focus on minimizing conflicts between through auto traffic on Avenue G and non-auto traffic crossing Avenue G at the school site.

# 8. Avenue H (Wilson Way to UUCB)

This section of Avenue H has a rural cross-section. As part of Urban Renewal in White City, this street will be upgraded to the Urban Minor Collector standard with two lanes bike lanes and sidewalks.

# 9. Beall Lane Widening

The centerline of Beall Lane is the Urban Growth Boundary and City limit line for Central Point and Medford. Jurisdictional exchange to either City is hampered by the fact that neither City includes the entire right-of-way. As such, the County has retained jurisdiction of this facility, which is why this project is included in the County Road Improvement Projects list even though the project is entirely within City limits. To accommodate anticipated future traffic volumes, Beall Lane would be widened to a three-lane cross-section with bike lanes and sidewalks between HWY 99 and Merriman Lane. This project is in the current RTP.

# 10. Fern Valley Road - Bear Creek Bridge

This RTP project widens the bridge on Fern Valley Road over Bear Creek to add capacity to the roadway, matching the capacity improvements in the vicinity of the I-5 interchange. This project is entirely within Phoenix, but the section of Fern Valley from the bridge to HWY 99 is still under county jurisdiction. This project will facilitate jurisdictional transfer of this facility.

#### 11. Foothills Road Extension

This project extends Foothills Road from Corey Road to Atlantic Avenue just south of the White City Urban Unincorporated Boundary. The project was initially identified as part of urbanizing land use changes in White City. The project would provide a much-needed additional north-south connection between White City and Medford. In reviewing the TSP, the Bike committee ranked Foothills among the 5 highest priority projects. The regional transportation demand model was run to assess impacts on Highway 62. The model indicated that several segments of Highway 62 would benefit from this connection between White City and Medford. This project addresses some of the intersection operations needs identified at Highway 140 and Highway 62 and Antelope Road and Highway 62.

The new road would be constructed as a rural major collector consistent with the functional classification for the rest of the facility between Medford and White City. This is a regionally significant project that must be incorporated into the RTP before it will be considered a planned project.

This project would add an intersection on Highway 140. The intersection meets Oregon Highway Plan spacing standards for this segment of Highway 140. Highway 140 has considerable available capacity under its adopted v/c and this intersection is not expected to cause the Highway 140 facility to exceed its adopted performance standard within the planning horizon. The one challenge that this project may face is that no access rights may exist for the adjacent properties. Region 3 ODOT staff has been contacted regarding this issue; a definitive ODOT determination for existence of an access right has not been made at this time. The County's TSP has been carefully coordinated with ODOT planning staff and they support the project as an effective way to reduce volumes on an Expressway (Highway 62) at the expense of a small reduction in capacity on a Statewide Highway. Thus, if no access rights exists, Jackson County will need to work with ODOT for a grant of access right in addition to the usual administrative rule procedures for the actual access permit. The grant of access may add costs to the project estimate.

## 12. Highway 140/Kershaw Road Intersection Flashing Beacon

The Highway 140/Kershaw Road intersection has a higher-than-usual crash rate. This STIP project will install a flashing beacon in advance of the intersection to warn drivers of the intersection ahead. The intersection's crash history should continue to monitored following the installation of the beacon to determine whether further steps are necessary. The extension of Foothill Road will likely remove some traffic from Kershaw and reduce the number of crashes at this intersection.

# 13. Highway 238 –(Bybee Corner)

This RTP and STIP project improves the alignment of the Jacksonville Highway/Hanley Road intersection (Bybee Corner), to address operations and safety concerns at the intersection.

## 14. Highway 238 Unit 2A

This RTP project adds bicycle facilities to Highway 238 between Ross Lane North and Bybee Corner, and provides sidewalks along the urban portion of Rossanley Road. This project ranked among the 5 highest priority projects for the Bicycle Committee.

# 15. Highway 62/Agate Road Realignment and Signalization

These RTP projects realign Agate Road to intersect Highway 62 at a right angle, and signalize the new intersection, to improve safety and operations. There are no specific spacing standards for traffic signals on this corridor, but the planned signal would not be inconsistent with current access spacing standards. This signal should be coordinated with adjacent signals on Highway 62 and will need to be approved by the State Traffic Engineer. In the longer term, the intersection will likely need to be modified depending on the outcome of the Highway 62 Planning Project. The Background Document provides concepts for street realignments in the area, should the expressway be constructed. The state traffic engineer must approve all new traffic signals on ODOT facilities.

#### 16. Highway 62/Highway 140 Intersection Modification

To improve intersection operations, this project adds a second westbound left-turn lane to the Highway 140 approach, and provides protected signal phasing to the east and west approaches. Depending on the outcomes of the I-5/White City Freight Mobility Planning Project and the Highway

62 Expressway Planning Project additional intersection modification may be necessary. For example, this intersection may need to be grade separated in the distant future.

The generalized growth model Kittelson used for intersection analysis indicates traffic volumes of approximately 2,200 per hour northbound and southbound with opposing left turning movements around 150 per hour. Thus, if this intersection had only these two movements, then the v/c would be about .89. The dual left turn lanes on the west bound approach will add about 10% to the capacity of the intersection based on these volumes, so it is worth doing, but the v/c will still be 1.36 if volumes materialize as projected. However, the projected critical movement volumes are more than twice the current volumes and projects in the TSP add one north-south connection (Foothills) and dramatically increase the capacity of another (Table Rock). Both of these connections are parallel to Highway 62 and should have substantial available capacity at the end of the planning horizon. If these routes eventually take around 400 additional north-south trips as Highway 62 becomes more congested during the peak hour, then the v/c would return to around 1.15.

The implications of these alternative route improvements will be able to be verified more precisely when the regional travel demand model is updated. Also, it is important to note that the generalized growth model used in the Kittelson analysis was a high volume estimate. The Kittelson analysis estimated 2023 ADT over 30,000 for this segment of Highway 62 and the RTP model forecasts were over not 30,000.

# 17. Jacksonville Highway

Jacksonville Highway between Oak Grove Road and Elm Street would be widened to a three-lane cross-section with bike lanes and sidewalks. This RTP project upgrades the roadway within the UGB, accommodates higher traffic volumes, and separates bicycle and pedestrian traffic from motor vehicles.

## 18. Leigh Way Connection

This RTP project extends Leigh Way from its current terminus at Agate Road to Antelope Road. The new connection would be a three-lane street with shoulders and would make a more direct connection from Highway 140 to the industrial area of White City. The project would reduce turning movements by eliminating the use of Agate Road for trips from Highway 140 to I-5.

The general alignment for this connection would cross the Ken Denman wildlife refuge. This is a Goal 5 protected resource and road building is listed as a conflicting use. A new ESEE would need to be completed to amend the County's acknowledged Goal 5 plan to allow construction of this facility. The Denman Wildlife Refuge is owned and managed by the Oregon Department of Fish and Wildlife, so the Goal 5 amendment would need to be well coordinated with ODFW's management goals. Also, there are mapped vernal pools wetlands in the vicinity that may prove challenging for this project. These vernal pools may provide habitat for an endangered species of fairy shrimp. A detailed wetlands assessment would need to be conducted as part of project development.

This project is one of three projects that comprise the TSP's short-term solution for improving freight mobility from White City to I-5. The other two projects are the Avenue G reconstruction/realignment and the realignment of the Kirtland – Antelope intersection. The Avenue G project will be completed first. The flows will then be reanalyzed to determine the extent to which the Avenue G improvements are drawing traffic away from Antelope Road. Then the Leigh Way Connection will be built. Traffic flows will be reanalyzed to see how much traffic has moved back to Antelope west of 7<sup>th</sup>. Then the Kirtland-Antelope intersection will be reanalyzed to determine if the dominant movement has shifted from through on Kirtland to westbound from Antelope. If the dominant

movement has not shifted then the intersection at Kirtland and Antelope will be left as-is until completion of the freight mobility planning project. If the dominant movement has shifts to westbound from Antelope as a result of the Leigh Way Connection then the Kirtland-Antelope intersection will be realigned to make the westbound on Antelope the through movement.

#### 19. Lozier Lane

This RTP project widens Lozier Lane to a three-lane cross-section with bike lanes and sidewalks between Stewart Avenue and Jacksonville Highway. Lozier Lane is in the City of Medford, but is a County Road.

#### 20. Ross Lane North

This Tier 1 RTP project upgrades Ross Lane North to three lanes with bike lanes and sidewalks between McAndrews Road and Rossanley Road. The project separates bicycle and pedestrian traffic from motor vehicles. Traffic volumes have increased dramatically on this road since Highway 238 Unit 1 was completed. This project would bring this facility up to an urban standard to accommodate the increased traffic volumes.

#### 21. Stewart Avenue (Hull to Thomas)

To accommodate anticipated future traffic volumes, this Tier 1 RTP project widens Stewart Avenue to a three-lane cross-section with bike lanes and sidewalks between Hull Road and the UGB.

# 22. Table Rock Road (Antelope to Wilson)

To accommodate existing and future traffic volumes, this Tier 1 RTP project widens Table Rock Road to a five-lane cross-section with bike lanes and sidewalks between Antelope Road and Wilson Road. This project is one of the County's highest priorities because it makes substantial improvements on a parallel route to Highway 62. The middle component of the project from Biddle to Wilson is scheduled for construction during the period anticipated for TSP adoption. If the consultant projected volumes at the Table Rock-Antelope intersection materialize then bringing these facilities up to a 5-lane standard with a couple of additional right-turn lanes at the intersection would bring the v/c to .91.

## 23. Table Rock Road (Biddle to Bear Creek)

To accommodate existing and future traffic volumes, this Tier 1 RTP project widens Table Rock Road to a three-lane cross-section with bike lanes and sidewalks between Biddle Road/Pine Street and Bear Creek. This project is one of the County's highest priorities because it makes substantial improvements on an alternate route to Highway 62. The middle component of the project from Biddle to Wilson is scheduled for construction during the period anticipated for TSP adoption. This project combined with the widening from Biddle to Wilson will address future volume needs, bringing the Biddle-Table Rock intersection to a projected 2023 v/c around .83.

#### 24. Table Rock Road/Wilson Road

This Tier 1 RTP project improves the operation of the Table Rock Road/Wilson Road intersection by signalizing it. This project is one of the County's highest priorities because it makes substantial improvements on an alternate route to Highway 62.

#### 25. West Pine Street

This project would bring this facility up to urban standards, adding a center turn lane and bike lanes and sidewalks on Pine Street between Haskell Street and Hanley to separate bicycle and pedestrian

traffic from the high volumes of motor vehicles on Pine Street. This facility is in the City of Central Point, but is still under County jurisdiction.

#### 26. White City to I-5 Freight Improvements

This project is a funding placeholder that anticipates future projects that will be identified from the White City freight mobility planning project.

# Tier 1 Long Range:

## 27. Bursell Road/Beall Lane Signal

The centerline of Beall Lane is the Urban Growth Boundary and City limit line for Central Point and Medford. Jurisdictional exchange to either City is hampered by the fact that neither City includes the entire right-of-way. As such, the County has retained jurisdiction of this facility, which is why this project is included in the County Road Improvement Projects list even though the project is entirely within City limits. To improve operations at the Bursell Road/Beall Lane intersection, this Tier 1 RTP project provides a traffic signal at the intersection.

#### 28. Fern Valley Road Signal

The Fern Valley Road/North Phoenix Road intersection will be signalized with this project, improving traffic operations in the area in conjunction with other projects on Fern Valley Road. The traffic signal is anticipated to operate at LOS "C" and v/c ratio of 0.60 during the 2023 weekday p.m. peak hour period.

# 29. Foothills Road Widening

There are a few issues that must be sorted out for this project. This portion of Foothill is within Medford City limits, but the County still retains jurisdiction of the facility. The RTP includes a project that widens Foothill Road between McAndrews Road and Delta Waters Road to a three-lane cross-section with bike lanes and sidewalks. In reviewing the TSP, the Bike committee ranked Foothills among the 5 highest priority projects. However, the Medford TSP classifies this section of Foothills Road as a Major Arterial, which is a five lane urban cross-section. Generally, the County TSP defers to City TSP's standards within the UGB. However, the City's proposal to classify this facility as a 5-lane major arterial is a major change to the project contemplated in the RTP. The County will wait for Medford to revise this project through the MPO process. At that time, the costs of the project will increase if additional lanes are added. This project accommodates future growth in the area and separates motorized and non-motorized modes of travel.

## 30. Foothills Road Widening

This project widens Foothills Road between Hillcrest Road to McAndrews Road to a three-lane urban cross-section with bike lanes and sidewalks. County and City TSP's both rely on Foothills Road to be an important north-south connection for both vehicles and bicycles. However, there is a portion of Foothills Road around the unincorporated island of Hillcrest Orchard inside Medford that is deficient and would cause significant vehicular congestion and not meet standards for adequate cycling and pedestrian facilities. This project eliminates the deficient Foothills segment and accommodates future growth in the area. In reviewing the TSP, the Bike committee ranked Foothills among the 5 highest priority projects. This is a regionally significant project that must be added to the Regional Transportation Plan before it will be considered a planned project.

# 31. Hanley Road

This project widens Hanley Road from Beall Lane to West Pine Street to a three-lane cross-section with bike lanes and sidewalks. The project is identified in the RTP to bring this facility up to Central Point City standards to accommodate high traffic volumes and to separate bicycle and pedestrian traffic from motor vehicles.

# 32. Kings Highway Widening

This RTP project widens Kings Highway from South Stage Road to the Medford UGB to a three-lane cross-section with bike lanes and sidewalks.

# 33. Lakeview to McLoughlin Connection

This is a significant north-south roadway realignment/connection project from Lakeview Drive to McLoughlin Road in the area between White City and Medford. The project was identified as part of the land use planning process in White City. The project provides the northern portion of an alternative north-south route between White City and Medford, in addition to the Foothills extension. Direct benefits to Highway 62 from both connections would be difficult to make at this time, which would then trigger a goal exception and/or expansion of the Medford UGB to make McLoughlin connect all the way to the Medford system. Since the need for both connections would be difficult to justify at this time, the completion of this connection is a lower priority than the Foothills extension. However, since the spacing is good and the eventual connection appears reasonable the northern component of the connection is included as a project. The new road would be constructed as a rural minor collector. This project would need to be included in the RTP before it would be considered a planned facility.

#### 34. South Valley View Road

To accommodate anticipated future traffic volumes, this project widens South Valley View Road to a five-lane cross-section with bike lanes and sidewalks between the I-5 interchange and Highway 99. The needs analysis in the TSP anticipates failure of the intersection with Highway 99 at the end of the planning horizon. The additional travel lanes, in conjunction with increased loading of Eagle Mill Road, should extend the functioning of this intersection within the ODOT performance standard through the planning horizon. Expected v/c would be .67. This road improvement lies outside an acknowledged urban growth boundary and adds travel lanes across a resource zoned (OSR) parcel. At a minimum, a review for compliance with ORS 215.293 (implemented by the County's LDO) and potentially an exception to Statewide Planning Goal 4 (Forest Lands) would be required. However, a corollary to this project is Lowe Road. This is a local road that intersects with S. Valley View immediately south of the I-5 Interchange. This access is much too close to the interchange and ODOT has expressed a desire to move the intersection. It would be logical to upgrade S. Valley View and move Lowe Road in a coordinated project. Depending on final project design and absent an action to rezone the property, an additional road across OSR zoned land may require a goal exception because the project would not meet the requirements of OAR 660-12-0065.

#### 35. Vilas Road

Under this Tier 1 RTP project, Vilas Road would be widened to five lanes with bike lanes and sidewalks from Haul Road to Crater Lake Avenue. This project accommodates existing and future traffic volumes on Vilas Road. This project will need to be re-evaluated as part of the Highway 62 Expressway planning project.

#### 36. White City to I-5 Freight Improvements

This project is a funding placeholder that anticipates future projects that will be identified from the White City freight mobility planning project.

#### 37. Wilson Way (Ave H to Dutton Road)

This project will improve Wilson Way to an urban minor collector standard in the WCUUCB and to a rural minor collector standard outside the WCUUCB. This road is currently dirt and is not maintained by the County. The functional classification of this facility as a minor collector will not occur until the road is upgraded to the minor collector standard and maintenance responsibilities are accepted by the County.

# Tier 2 (Unfunded) Projects:

# 38. Antelope Road/Highway 62

To improve future operations at this intersection, Antelope Road would be widened at the intersection to provide additional through and/or turn lanes, subject to right-of-way constraints. A number of different combinations of turn lanes are possible that would improve the intersection in 2023. The project could add westbound and eastbound lanes that would serve as a through and dual left turn lanes dividing the projected through and left-turn movements into three lanes. This project must be added to the RTP.

The generalized growth model Kittelson used for intersection analysis indicates traffic volumes of approximately 2,200 per hour northbound with opposing left turning movements around 150 per hour. Thus, if this intersection had only these two movements, then the v/c would be about .89. The dual left turn lanes on the west bound approach will add about 10% to the capacity of the intersection, so it is worth doing, but the v/c will still be well above 1 if volumes materialize as projected. However, the projected critical movement volumes are more than twice the current volumes and projects in the TSP add one north-south connection (Foothills) and dramatically increase the capacity of another (Table Rock). Both of these connections are parallel to Highway 62 and should have substantial available capacity at the end of the planning horizon. If these routes eventually take around 400 additional north-south trips during the peak hour then v/c would return to around 1.23.

The implications of these alternative route improvements will be able to be verified more precisely when the regional travel demand model is updated. Also, it is important to note that the generalized growth model used in the Kittelson analysis was the highest volume estimate. The Kittelson analysis estimated 2023 ADT over 30,000 for this segment of Highway 62 and neither the ODOT forecasts nor the RTP model forecasts were over 30,000.

# 39. Eagle Mill Road

To accommodate expanding future demand for access to the north Ashland interchange, Eagle Mill Road would be upgraded to the rural minor collector standard. To improve safety, some of the sharp curves along the road may require realigning. A dedicated left in and right in/right out along South Valley View should be considered as part of this project unless Lowe Road is realigned to develop signalized four-way intersection.

#### 40. Gibbon Road

The Tier 1 RTP version of this project widens shoulders on Gibbon Road between Upton Road and Table Rock Road to separate bicycle traffic from motor vehicles. However, most of this facility is now located within the Federal Aid Urban Boundary (FAUB) which calls for an urban major collector standard. Thus, the County TSP will revise this project to build a three lane urban cross

section with bike lanes and sidewalks within the FAUB. This change is what has moved this project out of Tier 1, as it is in the current RTP.

# 41. Peninger Road

This Tier 2 RTP project widens Peninger Road from Pine Street to Expo Park to three lanes with bike lanes and sidewalks. The project provides additional roadway capacity and separates bicycle and pedestrian traffic from motor vehicles. This project will accommodate future volumes from fairground expansions. High traffic generating fairground uses tend to be event based. This project, along with any improvements to the Peninger-Pine intersection should consider the opportunity to use the center lane as a directional demand lane that would change directions to accommodate event-based traffic demands.

# 42. Rogue River Drive (M.P. 5 to Shady Cove)

This project has been considered for many years. This section of road does not meet major collector standards, which causes problems for motorists and cyclists. Also, there are problems for pedestrians for the portion of the road that is within Shady Cove. The County portion of the project will bring the facility up to rural major collector standards. The project has been on hold for several years because it must be coordinated with the City, and Shady Cove has had difficulty determining exactly what types of improvements are appropriate inside the UGB. This project will become a fairly high priority when Shady Cove formalizes the necessary improvements.

# 43. Sage Road Improvement

This Tier 1 RTP project upgrades Sage Road to three lanes with bike lanes and sidewalks between Posse and Ehrman. This project is located within the City of Medford UGB, but the road is under County jurisdiction. This road has adequate capacity at this time, but there is significant potential for new development that would necessitate a three lane urban facility.

#### 44. West Antelope Road

To improve truck mobility, this project realigns the Antelope Road/Kirtland Road intersection so that the west and south approaches become the through movement, and vehicles must turn off the main roadway to continue east on Kirtland Road.

This project is one of three projects that comprise the TSP's short-term solution for improving freight mobility from White City to I-5. The other two projects are the Leigh Way Connection and the realignment/reconstruction of Avenue G. The Avenue G project will be completed first. The traffic flows will then be reanalyzed to determine the extent to which the Avenue G improvements are drawing traffic away from Antelope Road. Then the Leigh Way Connection will be built. Traffic flows will be reanalyzed to see how much traffic has moved back to Antelope west of 7<sup>th</sup>. Then the Kirtland-Antelope intersection will be reanalyzed to determine if the dominant movement has shifted from through on Kirtland to westbound from Antelope. If the dominant movement has not shifted then this project will be postponed until completion of the freight planning project. If the dominant movement has shifted to westbound from Antelope as a result of the Leigh Way Connection then this project will make the westbound on Antelope the through movement.

#### 45. West Dutton Road

This project extends West Dutton Road from its current terminus west of Highway 62 to Agate Road. It provides an additional connection in a northern portion of White City that has the potential to be developed in the future. The new connection would be constructed as an urban industrial collector. There are some vernal pools that may prevent development of this road. Also, the road would

primarily provide circulation for additional industrial land, so the project will not be a high priority until demand for industrial development in this portion of White City increases.

# 46. Wilson Way

This is the follow-up TSP project for the connection identified in the White City Connectivity plan. This project extends Wilson Way from Avenue F to Avenue G. It would provide a continuous north-south connection for motor vehicles and bicycles, including an additional connection from the elementary school located on Wilson Way. The new connection would be constructed to the two-lane urban minor collector standard.

#### 5.3 Public Transportation Plan

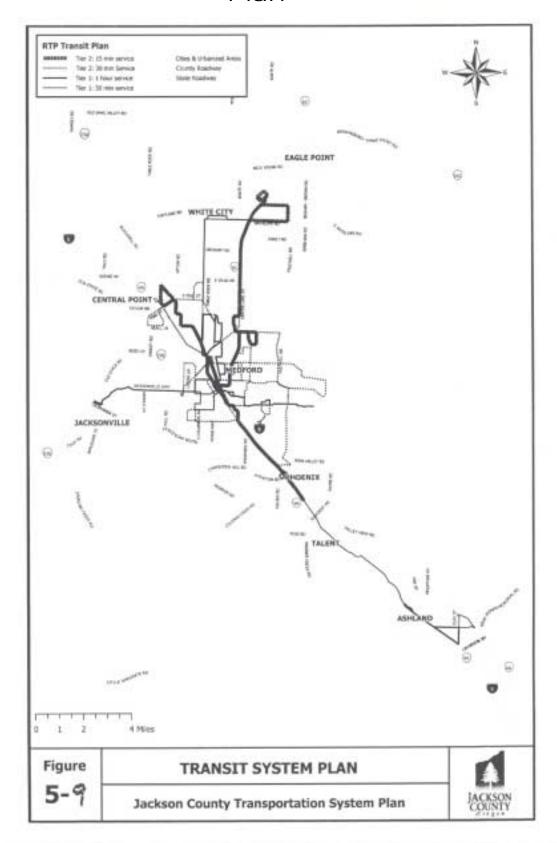
Although Jackson County does not provide public transportation services, the County can provide policies and facilities that support the provision and usage of transit service. Transit service provides mobility to County residents who do not have access to automobiles, and provides an alternative to driving for those who do.

Public transportation service within Jackson County includes fixed-route service operated by the Rogue Valley Transportation District (RVTD) and specialized transportation for users such as senior citizens and persons with disabilities. RVTD also organizes car pools and van pools between Ashland, Medford, and Grants Pass. In addition, ODOT provides PUC licenses to private companies and charter service providers. Intercity transit service is provided by Greyhound and by Amtrak Thruway bus service, which provides connections to Amtrak stations for passengers using rail for part of their trip.

The RTP proposes seven alternative measures to meet the TPR requirement of reducing the per capita VMT by 5% within the 20-year planning period. These measures and its targets are designed to reduce automobile reliance and increase the usage of alternate modes of travel. To meet the targets of the measures, the RTP identifies Tier 1 (financially constrained) and Tier 2 (desirable) levels of transit service within the MPO area, as illustrated in Figure 5-8. Jackson County should work with RVTD and RVCOG to identify means of implementing most to all of the Tier 2 program by the year 2023. In addition, Oregon's Public Transportation Plan identifies the lack of intercity bus service to Eagle Point as a need. Jackson County and RVTD should pursue federal and state intercity transit grants to fund at least commuter service between Medford and Eagle Point via White City on a demonstration basis. If successful in attracting ridership, the County and RVTD should pursue expanding the RVTD district boundary to include Eagle Point to help support permanent, expanded service.

A 2001 study of commuter rail between Grants Pass and Ashland estimated annual operation costs that were twice RVTD's current operating budget, and daily ridership that would be lower than any single-line commuter rail service currently operating in North America, with the exception of a limited Wednesday-Sunday service in Syracuse, New York. Therefore, the TSP does not recommend further pursuit of commuter rail at this time.

Figure 5-9 Transit System Plan



#### 5.4 Pedestrian and Bicycle Plan

Providing a connected network of pedestrian facilities is important for:

- Serving shorter pedestrian trips from neighborhoods to area activity centers, such as schools, churches, and neighborhood commercial uses;
- Providing access to public transit; and
- Meeting residents' recreational needs.

Jackson County's design standards provide sidewalks on all new County roads within urban growth boundaries and urban containment boundaries. In rural areas, the standards provide paved shoulders on higher-volume roadways to facilitate safe pedestrian and bicycle travel. As development occurs, and as County funding permits, gaps in the existing pedestrian and bicycle systems will be filled.

The need to develop a multi-use pathway system carries forward into this TSP. Although funding dedication constraints generally do not allow the development of this system through TSP projects, the County may wish to consider developing alternative funding sources to develop the system. One multi-purpose pathway project that is included in the TSP is the completion of the 20-mile Bear Creek Greenway multi-use path from the Seven Oaks interchange north of Central Point to Nevada Street in Ashland. Two multi-use pathway planning projects have been suggested from other jurisdictions through the coordinated planning process. Jacksonville has indicated the desire for a pathway to Medford. Citizens of the Rogue River, Gold Hill, and Central Point areas and Cities of Rogue River and Gold Hill planning staff have suggested the need for a planning project for extension of the Bear Creek Greenway from Central Point to the Josephine County line.

A 'Rogue River Greenway Plan' would plan a multi-use pathway corridor approximately 20 miles in length along the Rogue River. Generally, bicycle and pedestrian facilities are deficient along this corridor. A multi-use pathway in this corridor would serve alternative travel demand as well as serving a recreational pathway function. Development of the planning project may need to be phased into two or three connected plans to address different planning challenges that may be encountered in certain segments of the corridor.

The bicycle plan establishes a network of bicycle lanes and routes that connect the County's bicycle trip generators to provide a safe, interconnected bicycle system for recreational and commuter use. Bicycle lanes or paved shoulders are designated on arterial and collector street segments. The County may also wish to designate and sign bicycle routes in locations where a continuous roadway system does not exist, to provide route guidance to bicyclists.

In 1997, Jackson County adopted its Bicycle Master Plan, which identified then-current conditions and needs. This TSP incorporates the projects identified in the master plan that have not yet been completed. The TSP also adds projects that were not in the Master Plan where traffic volumes are expected to exceed 3,000 ADT and adequate shoulders or bike lanes are not provided. Table 5-5 shows the TSP's pedestrian and bicycle projects. Figures 5-10 and 5-10A shows the County's pedestrian and bicycle projects. Note that the roadway widening projects listed in the Vehicle System section will also provide bicycle lanes and sidewalks where they do not already exist. The pedestrian and bicycle projects listed below are in addition to the roadway capacity projects that will improve bicycle and pedestrian facilities.

TABLE 5-5 PEDESTRIAN AND BICYCLE PROJECTS

Мар			
Key	Facility	Section	Description
	Tier	1 Short and Medium Term (financially co	onstrained through 2013
1	Bear Creek Greenway	Various gaps in the existing alignment	Complete County portions of the Bear Creek Greenway
2	Carpenter Hill Road	Voorhies Road to Coleman Creek Road	Widen to rural two-lane with shoulder bikeways
3	East Pine Street	Table Rock Rd to Hamrick Rd	Add bike lanes and sidewalks
4	East West Pathway	Division Road to north of 29th Avenue	New multi-use pathway
5	Foothill Road	Delta Waters Rd to Coker Butte Rd	Widen shoulders
6	Foothill Road	Coker Butte Rd to Corey Rd	Widen to rural two-lane with shoulder bikeways
7	Old Stage Rd	Winterbrook to Blackwell	Widen to rural two-lane with shoulder bikeways
		Tier 1 Long Term (financially constrai	ned 2014 - 2023)
8	Bigham Brown Road	Antelope to Eagle Point	Widen to rural two-lane with shoulder bikeways
9	Coleman Creek Rd	Carpenter Hill to Pioneer	Widen to rural two-lane with shoulder bikeways
10	Griffin Creek Road	Pioneer to South Stage Rd	Widen to two-lane with bike lanes and sidewalks
11	Hillcrest Road	Cherry Ln to Gardener	Widen to rural two-lane with shoulder bikeways
12	Hull Road	South Stage Rd to Stewart St	Widen to rural two-lane with shoulder bikeways
13	Pioneer Rd (Phase1)	Colver to Coleman	Widen to rural two-lane with shoulder bikeways
14	Pioneer Rd (Phase2)	Griffin Creek to Carpenter Hill	Widen to rural two-lane with shoulder bikeways
15	Taylor Road	Old Stage Rd to Grant	Widen to rural two-lane with shoulder bikeways
16	Upton Road	Raymond to Gibbon Rd	Widen to rural two-lane with shoulder bikeways
17	VA Dom to Antelope Road Pathway	VA Dom to Antelope Road	Upgrade pathway to ODOT's standard for separated pathway standards.
18	Voorhies Rd	Carpenter Rd to S Stage Rd	Widen to rural two-lane with shoulder bikeways

	Tier 2 (unfunded)			
19	Applegate Road	Hwy 238 to Hamilton	Widen to rural two-lane with shoulder bikeways	
20	Bellinger Road	South Stage to Hull	Widen to rural two-lane with shoulder bikeways	
21	Crater Lake Avenue	Coker Butte to Corey Road	Widen to two-lane with bike lanes and sidewalks	
22	East Evans Creek Rd	MP 25 to Pleasant Cr RD	Widen shoulders	
23	Gregory Road	Table Rock to Highway 62	Widen to rural two-lane with shoulder bikeways	
24	Highway 234	Antioch Rd to 4 <sup>th</sup> Ave (Gold Hill)	Widen shoulders	
25	Highway 238	Applegate Rd to Thompson Creek Rd	Widen shoulders	
26	Highway 62	Shady Cove NCL to Elk Creek Road	Widen shoulders	
27	Highway 66	I-5 to Crowson Road	Bike lanes/shoulders	
28	Highway 99	Josephine County to Gold Hill	Widen shoulders	
29	Highway 99	Medford SCL to Ashland NCL	Add sidewalks and, where feasible, bike lanes	
30	Highway 99	Highway 238 to Beall Lane	Widen to provide bike lanes and sidewalks	
31	Nick Young Road	Agate to Highway 62	Widen shoulders	
32	North River Road	Gold Hill to Rogue River	Widen Shoulders	
33	Oak Street	W Nevada Street to Eagle Mill Road	Add bike lanes and sidewalks	
34	Pioneer Rd (Phse 3)	Griffin Creek Rd to Voorhies Road	Widen to rural two-lane with shoulder bikeways	
35	Riley Road	Antelope Rd to MPO limits	Widen to rural two-lane with shoulder bikeways	
36	Scenic Ave	Old Stage Rd to Grant Rd	Widen to rural two-lane with shoulder bikeways	
37	Vilas Road	Crater Lake Ave to Foothill Rd	Widen to rural two-lane with shoulder bikeways	
38	Wilson Road	Upton Rd to Table Rock Rd	Widen to rural two-lane with shoulder bikeways	

NCL=Northern City Limit SCL=Southern City Limit MPO=Metropolitan Planning Organization UGB=Urban Growth Boundary

# Figure 5-10 Pedestrian and Bicycle Plan

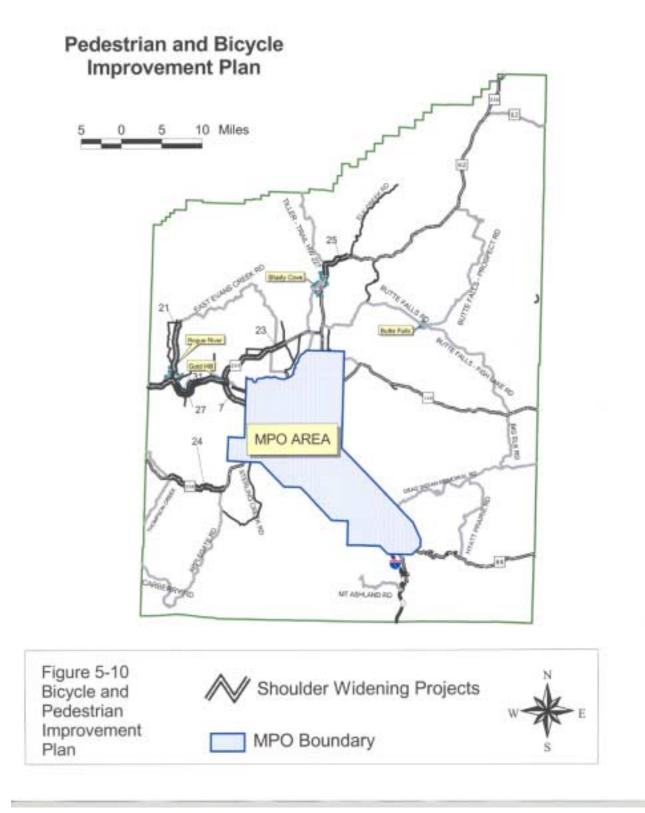
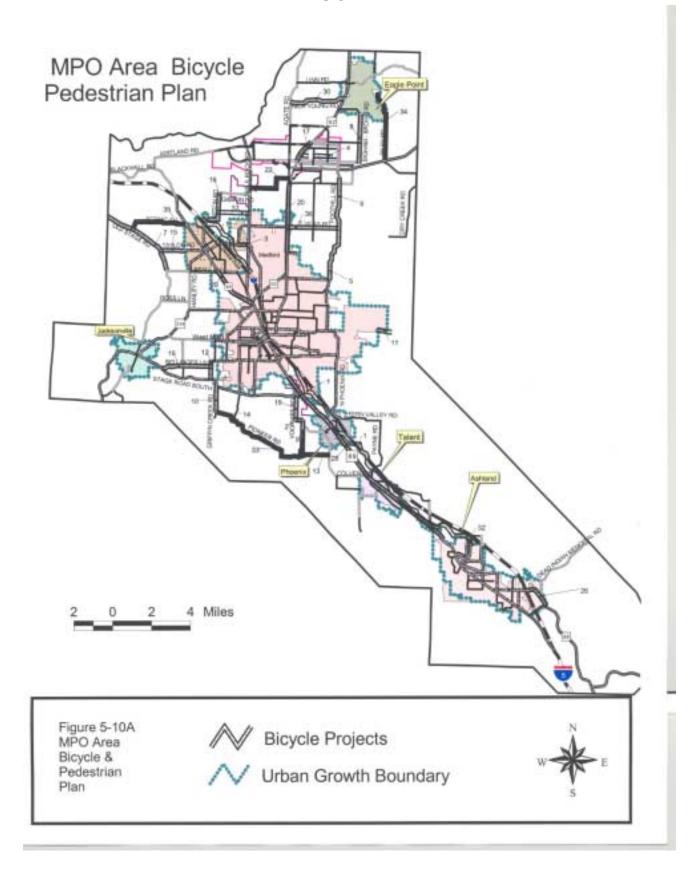


Figure 5-10a



## Tier1 Short and Medium Range (Financially constrained 2004 – 2013)

# 1. Bear Creek Greenway

This project is identified in the Jackson County Bicycle Master Plan. It completes the County portions of the Bear Creek Greenway from Ashland to Central Point at Upton Road.

#### 2. Carpenter Hill Road (Voorhies to Coleman Creek)

To improve separation between bicyclists and motor vehicles, this Tier 1 RTP project widens shoulders on Carpenter Hill Road from Voorhies Road to Coleman Creek Road.

#### 3. East Pine Street

To improve separation between bicyclists, pedestrians, and motor vehicles, this project adds bike lanes and sidewalks to East Pine Street between Table Rock Road and Hamrick Road. This section of the roadway was identified as a high traffic volume section with no bike lanes and sidewalks.

# 4. East-West Pathway

This project provides a new multi-use path between Division Road and a planned local street located northeast of the Avenue C/29<sup>th</sup> Street intersection, connecting residential areas to White City Elementary School and the commercial strip along Highway 62. The project was identified in the White City transportation connectivity plan.

#### 5. Foothill Road (Delta Waters to Coker Butte)

This project widens shoulders on Foothill Road between Delta Waters Road and Coker Butte Road to accommodate bicycle traffic. The project fills in the gap between other RTP projects, and addresses a need identified in the County's Bicycle Master Plan. In reviewing the TSP, the Bike committee ranked Foothills among the 5 highest priority projects.

#### 6. Foothill Road (Coker Butte to Corey Road)

This Tier 1 RTP project widens shoulders on Foothill Road between Coker Butte Road and Corey Road to accommodate bicycle traffic. In reviewing the TSP, the Bike committee ranked Foothills among the 5 highest priority projects.

## 7. Old Stage Road (Winter Brook to Blackwell)

This Tier 1 RTP project adds paved shoulders on Old Stage Road between Winterbrook Road and the MPO boundary. In reviewing the TSP, the Bike committee ranked Old Stage Road among the 5 highest priority projects. The Bicycle Master Plan identifies Old Stage Road as needing bicycle facilities. This project completes the bicycle connection between Central Point and Gold Hill. A continuous bicycle facility on Old Stage Road provides a major north-south connection on the western edge of the MPO boundary and serves recreational needs.

# Tier1 Long Range (Financially constrained 2013 – 2023)

#### 8. Bigham Brown Road

This RTP project adds shoulders to Bigham Brown Road between Antelope Road and Alta Vista, providing a bicycle route south from Eagle Point that would connect to future bicycle facilities on Foothill Road. The project is in the short term list of the RTP, but since the project has been extended all the way to Eagle Point costs have risen and this project has been moved to long range as a result.

#### 9. Coleman Creek Road

To improve separation between bicyclists and motor vehicles, this Tier 1 RTP project widens shoulders on Coleman Creek Road between Carpenter Hill Road and Pioneer Creek Road.

# 10. Griffin Creek Road

This Tier 1 RTP project adds bike lanes and sidewalks on Griffin Creek Road between the Pioneer Road and South Stage Road to separate bicycle and pedestrian traffic from motor vehicles, and improve bicycle connections in the area.

#### 11. Hillcrest Road

This Tier 1 RTP project widens shoulders on Hillcrest Road between Cherry Lane and Gardener to separate bicycle traffic from motor vehicles.

#### 12. Hull Road

This Tier 1 RTP project widens shoulders on Hull Road between South Stage Road and Stewart Avenue to separate bicycle traffic from motor vehicles. This facility will add an important bicycle connection between roads with good bike facilities.

# 13. Pioneer Road Phase 1 (Colver to Coleman Creek)

This Tier 1 RTP project widens Pioneer Road to two lanes with paved shoulders between Colver Road and Coleman Creek.

# 14. Pioneer Road Phase 2 (Griffin Creek to Carpenter Hill)

This project would extend bicycle improvements from Griffin Creek to create an eventual link to Phoenix.

#### 15. Taylor Road

This Tier 1 RTP project provides a bicycle connection between Central Point and Old Stage Road by widening Taylor Road to a rural two-lane section with paved shoulders.

#### 16. Upton Road

This Tier 1 RTP project widens Upton Road to two lanes with paved shoulders between Raymond Road and Gibbon Road.

#### 17. Voorhies Road

This Tier 1 RTP project widens Voorhies Road to two lanes with paved shoulders between South Stage Road and Carpenter Hill Road.

## 18. VA Dom-Antelope Rd Pathway

This project rebuilds the multi-use path between Antelope Road and the VA Domiciliary. The existing pathway is paved, but the pavement is deteriorating and does not meet the Oregon Bicycle and Pedestrian Plan standards for a separated multi-use pathway. This project will reconstruct the pathway to a modern standard and add some pedestrian amenities.

# Tier 2 (Unfunded):

#### 19. Applegate Road

A citizen at the TSP open house requested staff consider improvements to the shoulders in this area, as they appeared to meet the TSP criteria for shoulder widening. Current traffic volumes are over 3,000 ADT. Unless there is a major change to the statewide land use system in the next 20 years, it is unlikely that volumes will increase dramatically over the planning horizon. However, current volumes are sufficient to warrant a widening project to meet the 6' shoulder standard for a major collector. The project was placed in the unfunded list, because there is an existing shoulder in the area (2 feet) and the pavement is in good condition. As such, it is a lower priority than other roads where both vehicular and pedestrian traffic volumes are expected to rise more rapidly and where no shoulder currently exists and the pavement is in poor condition (shoulder widening projects are most efficient when combined with an overlay of the entire road segment).

#### 20. Bellinger Lane

This project adds shoulders to Bellinger Lane bringing it up to rural major collector standards between South Stage Road and Hull Road. This project was identified to separate cyclists from the expected traffic volumes.

#### 20. Crater Lave Avenue (Coker Butte to Corey Road)

This RTP Tier 2 project widens Crater Lake Avenue between Coker Butte and Corey Road, adding bike lanes and curb gutter and sidewalks.

# 22. East Evans Creek Road

To improve separation between bicyclists and motor vehicles, this project widens shoulders on Evans Creek Road between the northern city limits of Rogue River and Pleasant Creek Road.

#### 23. Gregory Road

This Tier 1 RTP project widens shoulders on Gregory Road between Table Rock Road and Crater Lake Highway to separate bicycle traffic from motor vehicles.

#### 24. Highway 234

This project widens shoulders on Highway 234 between Antioch Road and 4<sup>th</sup> Avenue in Gold Hill. This project completes the bicycle network between Central Point, Gold Hill, and Eagle Point. In reviewing the TSP, the Bike committee ranked Highway 234 among the 5 highest priority projects.

#### 25. Highway 238

To improve separation between bicycle and motor vehicle traffic, this project widens the shoulders on Highway 238 between Applegate Road and Thompson Creek Road.

#### 26. Highway 62

To better separate bicycle and motor vehicle traffic, this project widens the shoulders on Highway 62 between the north Shady Cove City Limits and Elk Creek Road.

#### 27. Highway 66

To better separate bicycle and motor vehicle traffic, this project adds bike lanes or widens shoulders on Highway 66, where possible, between the I-5 interchange and Crowson Road.

## 28. Highway 99 (Josephine County Line to Gold Hill)

Identified as one of the bicycle needs in the Bicycle Master Plan, this project widens shoulders on Highway 99 from the Josephine County line to the I-5 Rogue River Road interchange. This project would extend the project identified in the Bicycle Master Plan all the way to Gold Hill to provide a safer bicycling environment along a scenic stretch of the Rogue River and offers the potential for an eventual bicycle link to Grants Pass.

## 29. Highway 99 (Medford to Ashland)

Highway 99 between Medford and Ashland carries relatively high volumes of traffic, but lacks sidewalks and bicycle facilities in many locations. It is also part of the bus route connecting Medford with Ashland. Due to right-of-way constraints, constructing both bike lanes and sidewalks is not feasible in all locations. Given the proximity of the parallel Bear Creek Greenway and the provision of bicycle racks on RVTD buses, bicycle lanes are considered a lower priority for this corridor, but should still be provided to serve local access needs where the combination of adequate right-of-way, east-west connections to the Greenway, and compatible land uses exist. Sidewalks should be developed in all built-up areas along Highway 99, and at least to the nearest cross street from RVTD bus stops in other locations.

# 30. Highway 99 (Highway 238 to Beall Lane)

This Tier 2 RTP project widens Highway 99 from Highway 238 in Medford to Beall Lane in Central Point, providing another bicycle connection between the two cities, and improved separation of pedestrians and bicyclists from vehicular traffic.

## 31. Nick Young Road and Eagle Point

To improve separation between bicyclists and motor vehicles, this project widens shoulders on Nick Young Road going into Eagle Point.

#### 32. North River Road (Gold Hill to Rogue River)

The Communities of Rogue River and Gold Hill identified this project to improve bicycle facilities between Gold Hill and Rogue River. This facility is a major collector, but is outside the MPO. The traffic volumes on this road segment do not currently meet the threshold (3,000 ADT) set in the TSP whereby a lack of shoulders would be considered a deficiency. However, the volumes toward the end of the planning horizon are expected to be approaching the applicable threshold. As such, the project has been added the unfunded project list.

## 33. Oak Street Improvements

This project adds bike lanes and sidewalks to Oak Street between West Nevada Street and Eagle Mills Road. This project connects with potential Eagle Mills Road roadway improvements and helps to connect Ashland's bicycle network to the Bear Creek Greenway.

# 34. Pioneer Road Phase 3 (Carpenter Hill to Coleman Creek)

To improve separation between bicyclists and motor vehicles, this project will replace the Tier 1 RTP project that was to widen shoulders on Carpenter Hill Road from Griffin Creek Road to Voorhies Road. The Pioneer connection is more direct and the grades are not quite as steep as Carpenter Hill.

# 35. Riley Road

The Tier 1 RTP version of this project widens Riley Road to two lanes with paved shoulders between Antelope Road and the MPO limits. With the expansion of the MPO, the project would be extended to Stevens. This dramatically increased the cost of the project and will drop the project out of the financially constrained list.

#### 36. Scenic Avenue

This Tier 1 RTP project widens Scenic Road to two lanes with paved shoulders between Old Stage Road and Grant Road, providing an east-west bicycle facility between Central Point and Old Stage Road.

#### 37. Vilas Road

This Tier 1 RTP project widens Vilas Road to two lanes with paved shoulders between Crater Lake Avenue and Foothill Road. This project provides an east-west bicycle connection to Foothill Road, which is planned to have a continuous bicycle facility.

#### 38. Wilson Road

This Tier 1 RTP project widens Wilson Road to two lanes with paved shoulders between Table Rock Road and Upton Road.

#### 5.5 Rail Plan

Rail service in Jackson County is provided by the Central Oregon & Pacific Railroad (CORP), a short-line operator that serves the I-5 corridor, connecting with the Union Pacific Railroad in Black Butte, California and at the Springfield Junction near Eugene, Oregon. Most of the traffic originating in Jackson County heads south to California over one of the most rugged rail lines in the western part of the United States, according to the 2001 Oregon Rail Plan. The portion of the line south from Ashland to Black Butte has no weight restrictions; however, tunnels both north and south of the Rogue Valley are inadequately sized to accommodate large containers. The dimensional restrictions in the Siskiyou Mountains prevent Jackson County shippers from opening markets to California.

CORP track is maintained to FRA Class 1 and 2 conditions. Class 1 limits freight trains to 10 mph and passenger trains to 15 mph, and Class 2 limits freight trains to 25 mph and passenger trains to 30 mph. The 1992 Oregon Transportation Plan calls for maintaining track in at least Class 2 condition whenever the upgrading can be done with a favorable cost-benefit ratio.

The White City Terminal Railroad (WCTR) operates in an industrial park at White City. The major commodities moved by WCTR are chemicals and wood products. WCTR is in FRA excepted track status (lower than Class 1, with a maximum freight speed of 10 mph and restrictions on use), except for certain tracks, which are used to carry hazardous materials, which are maintained in Class 1 condition.

The Oregon Rail Plan surveyed shippers and all of the state's short line railroads. According to the responses, shippers prefer a standard freight car gross weight of 286,000 pounds, compared to a 263,000-pound car. To accommodate heavy cars, most short-line railroads would need to rehabilitate their tracks and facilities. The Central Oregon & Pacific Railroad identified funding needs of \$6

million for cross-tie renewal, surface, and line improvements to accommodate the heavier cars. Tunnel improvements needs for the CORP to accommodate double-stacks are currently unknown; the 2001 Oregon Rail Plan reports that the BNSF estimated an average of slightly more than \$1 million per tunnel for clearance improvements on its line to accommodate double-back containers.

The TSP identifies a CORP Line Rehabilitation Economic Analysis study to evaluate the potential economic benefits of public investment in improvements to accommodate heavier rail cars and double-stacked containers. This study would provide a more precise estimate of improvement costs than the planning-level estimate provided in the Oregon Rail Plan, would estimate potential usage of the improved line by shippers, and would estimate the economic benefits that would result, leading to recommendations on whether and how to proceed. Past freight mobility studies have identified the desire among shippers for such improvements. Funding for the study could be pursued through the Oregon Economic and Community Development Department (from lottery dollars), and the County might also wish to consider partnering with Josephine and Siskiyou Counties, which could also benefit from railroad improvements.

#### 5.6 Air, Marine, and Pipeline Plans

#### Air Plan

Of the 23 air transportation facilities in Jackson County, only four are open to the public. These are Rogue Valley International-Medford Airport, Ashland Muni-Sumner Parker Field, Pinehurst State Airport, and Prospect State Airport.

The Rogue Valley International-Medford Airport is by far the busiest airport in the County with 218,600 enplanements and 70,000 landings and take-offs in 1998. Its service area extends into northwest California, with commercial scheduled service provided by America West, Horizon Air, United Airlines and United Express. The Airport Master Plan forecasts an annual growth rate of 2.5% in enplanements-per-capita. The Master Plan also outlines a capital improvement program of \$35,597,000 for the next 20 years, including, among other items:

- Constructing a new interchange at Biddle Road (\$2,000,000), and
- Re-aligning 1,200 feet of Milligan Way (\$100,000).

The Oregon Aviation Plan identifies various needs at public airports. Technical Memorandum #4 in the *Background Document* provides details of these needs at the public airports in Jackson County. The plan sets system-level program priorities and targets resources on a core system of airports. Seventy airports are included in the statewide core system, including all four public airports in Jackson County.

#### Marine Plan

No economically navigable waterways are located within Jackson County. The Rogue River is used for recreation activities.

#### Pipeline and Transmission Plan

The private utilities providing natural gas and electricity to the County identified no long-term needs with their transmission systems.

# Section 6

Transportation Financing Plan

# Transportation Financing Plan

The Transportation Planning Rule (OAR 660-12-040) does not require that county TSPs include a financing plan. This section of the TSP is not being adopted as part of the Comprehensive Plan, it is included so that the County TSP is financially informed by the expected ratio of transportation expenditure demands to expected revenues. There is also a strategy for quasi-judicial plan amendments and/or zone changes that allows development to rely on projects that are planned for construction by 2013 for TPR compliance. This section provides the cost analysis to provide a 2004-2013 financially constrained projects list to execute this strategy. The finance overview provides historical context for road expenditures and revenues in Jackson County and to identify primary sources for capital project funding. In addition, planning level cost estimates for specific projects have been provided in order to develop a realistic time frame and priorities for improvements. The financing plan is structured to show the various revenue sources spent on the transportation system. The financing plan is structured to show general expenditures in accordance with the three main categories of transportation expenditures identified in the plan, transportation planning projects, minor system betterment and maintenance, and capital projects.

The financing plan is organized to allow the reader to have a general understanding of where transportation funds come from and go to in terms of products. The Roads, Parks, and Planning finance staff have helped compile the historical data. Because the focus of the financing plan is on transportation projects, revenues and expenditures are organized very differently from the Roads' budget and an attempt to reconcile the two is not recommended.

The timing and financing provisions in the transportation financing program are not considered a land use decision as defined by the TPR and ORS 197.712(2)(e) and, therefore, cannot be the basis of appeal under State law. In addition, the transportation financing program is intended to implement the comprehensive plan policies, which provide for phasing of major improvements to encourage infill and redevelopment of urban lands, prior to facilities that would cause premature development of urbanizable areas or conversion of rural lands to urban uses.

The Transportation Financing Plan portion of this TSP presents the funding analysis that was used to develop the "budget" for the financially constrained (Tier 1) capital project list presented later in this section. This analysis provides an overview of transportation funding in the State of Oregon and current and historical funding levels for transportation in Jackson County.

## 6.1 TRANSPORTATION SYSTEM REVENUES THROUGH 2023

Historically, funding for Jackson County roads has come from a variety of sources. The two primary funding sources are the County's Oregon Highway Fund Apportionment and the County's share of US Forest Service timber receipts. As of 12/13/2002, Jackson County had 5.49% of the total registered vehicles in Oregon, which provides a substantial share of the total gas tax apportionment to Oregon's counties. Timber receipts declined in the early 1990s due to reduced timber harvests. In response, Congress passed legislation to sustain timber receipts. Most recently, in 2000, the Secure Rural Schools and Community Self Determination Act was passed, which provides a stable replacement of dedicated Forest Service timber receipts through Federal FY 06. According to Jackson County's 2003-2004 Annual Budget report, participation in efforts to renew this revenue guarantee will be an important strategy during the next few years. System development charges (SDC's) are also collected pursuant to the ORS requirements for SDC's to offset the costs associated with the need for additional system capacity generated by new development.

In addition to direct Roads Department funding, there are many external funding sources that fund transportation system improvements in Jackson County. ODOT provides funding for ODOT projects in the County. In the 2003 legislative session, the third version of the Oregon Transportation Investment Act (OTIA III) was reauthorized. Jackson County has been the beneficiary of OTIA I & II funds in the past and is expected to receive additional funds from OTIA III. ODOT also distributes 'pass through' Federal funding for certain types of projects, such as some bridge projects and Congestion Mitigation and Air Quality (CMAQ) funding. These types of 'pass through' funds are 'awarded' for deserving projects, making future funding opportunities difficult to project. Also, occasionally Federal 'ear-mark' funds are available for specific projects. 'Ear marks' are notoriously difficult to anticipate, so the plan generally assumes that these funds are not available. However, an 'ear mark' for completion of the Bear Creek Greenway is included in the most recent version of the (TEA-21) reauthorization, so the County has included these federal funds in revenue projections.

Another important source for road improvements is the White City Urban Renewal district. This is an urban renewal taxing district that provides substantial funding for transportation improvements in White City. White City Urban Renewal funds are not included in the generalized revenue funding projections included in this portion of the TSP because this funding source is finite and is only applicable in White City. However, capital improvements that will be paid for with Urban Renewal dollars are noted in the 'other' column in the capital improvement project list. Thus, the financially constrained project list includes project funded by Urban Renewal. For more detailed information on transportation system improvements funded by Urban Renewal see the Urban Renewal Plan and the White City TSP.

Baseline revenue projections are produced in three steps. First, the last 4 years of revenue are broken down according to the primary funding sources. These revenue sources are then projected forward using linear regression for 20 years. Final revenue projections are then modified by expected changes to these funding sources and trended upward or downward accordingly. It is important to note that the confidence interval for funding level forecasts decreases quickly in the second half of the planning horizon. These are summarized in Table 6-1.

TABLE 6-1 HISTORIC TRANSPORTATION FUNDING SOURCES

Revenue Source	FY 1999-2000	FY 2000-2001	FY 2001-2002	FY 2002-2003
Timber Receipts/ Timber Receipt				
Replacement	\$2,743,933	\$2,708,539	\$3,838,722	\$3,869,041
SDC's	\$500,000	\$525,000	\$600,000	\$500,000
Gas Tax Apportionment	\$8,117,995	\$8,244,178	\$8,093,602	\$8,061,103
ODOT				
Federal 'Pass-Through' (STP Approx)	\$350,000	\$350,000	\$350,000	\$350,000
Federal 'Ear Marks'				
Total	\$11,711,928	\$11,827,717	\$12,882,324	\$12,780,144

Using linear regression to trend these total dollars forward through 2023 adds about a half million dollars a year through the plan horizon. However, most all of this increase is due to the jump of about a million dollars in timber receipt replacements from FY2000-2001 to FY2001-2002, which is closely tied to federal legislation. It would not be prudent to plan for such a long-term boost in federally legislated dollars. If timber receipts are still included, but this short-term jump is removed then forecast revenues are essentially flat. There will be some increase due to inflation, but that will be consumed in the inflation of operating and construction costs, so real dollar expectations are pretty

well represented at about 12,000,000 a year. This baseline figure does not include the earmarks and OTIA III dollars discussed above.

# 6.2 TRANSPORTATION PLANNING EXPENSES

The County has both day-to-day transportation planning expenditures and transportation planning project expenditures. Day-to-day expenditures include things such as participation in the MPO, participation on Technical Advisory Committees for other jurisdiction's planning projects, and internal meetings and coordination on a variety of transportation issues. Day-to-day expenditures on transportation planning are relatively small, usually less than \$10,000 a month.

Planning projects tend to be much more expensive. The development of this TSP is an example of a transportation planning project expenditure. The consultant contract was about \$130,000 with almost equal expenditure of County staff work. The TSP has identified several planning projects for the planning horizon. Table 6-2 provides very rough cost estimates for completion of these planning projects:

TABLE 6-2 PLANNING PROJECT COSTS

Project	Cost	Potential Revenue Sources (Not Including County)
Highway 62 Expressway	\$200,000	ODOT
White City/ I-5 Freight Mobility Study/		
Seven Oaks Interchanges	\$250,000	ODOT, Private Sector
Jacksonville Arterial Connector	\$500,000	Jacksonville Urban Renewal, Federal
HWY 62 Streetscape and Access		
Management Study	\$225,000	ODOT
Greenway Extension to County Line	\$500,000	Rogue River, Gold Hill, Federal
Total	\$1,675,000	

It is important to reiterate that the actual planning costs could differ substantially from these estimates. There is no magic formula for estimating the costs of these planning projects. The numbers just represent County staff's rough approximation of how much the project would cost in current dollars. In all these projects, substantial data collection and analysis would be necessary. Also the costs reflect, approximate study and adoption costs. They do not include potential legal defense costs. For any of these planning projects to have much value, Board adoption of the product would be required. Litigation is always possible for any large-scale land use action and any of these projects could have substantial legal costs in addition to the planning costs. However, the better and more credible the planning product the more defensible it would be.

## 6.3 TRANSPORTATION SYSTEM MAINTENANCE AND BETTERMENT EXPENSES

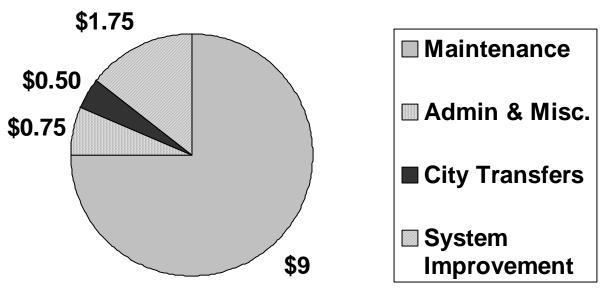
The largest component of transportation system costs is maintenance and minor betterment. These expenses range from ditch cleaning to bridge replacements. Table 6-3 provides a breakdown of transportation system expenses for maintenance and betterment.

TABLE 6-3 MAINTENANCE & BETTERMENT EXPENSES

	1999-2000	2000-2001	2001-2002	2002-2003
Road Surface Maintenance	\$3,715,910	\$3,759,062	\$3,527,120	\$3,977,409
Drainage Maintenance	\$949,101	\$745,686	\$896,819	\$1,001,982
Vegetation Control	\$584,778	\$849,685	\$883,432	\$845,998
Traffic Control	\$716,706	\$734,341	\$756,247	\$836,785
Bridge/Guardrail Maintenance	\$110,544	\$126,240	\$128,389	\$88,550
Snow/Ice Control	\$208,988	\$278,704	\$380,284	\$164,443
Other Maintenance Costs (Approx.)	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Totals	\$7,786,027	\$7,993,718	\$8,072,291	\$8,415,167

Jackson County Roads incurs approximately \$.75 million dollars in administrative costs and other miscellaneous expenses associated with administration of the program. The graph below shows a generalized break down of expenditures. The purpose of this graph is to provide a general overview of the costs of administering the Jackson County Roads program and to show the approximate proportion of revenues that are available for Roadway Improvement Projects. More detailed expenditures are available in the Department's budget and the financial reporting.





### 6.4 TRANSPORTATION SYSTEM IMPROVEMENT EXPENSES

Historical transportation improvement project expenses are provided in Table 6-4. This table lists the transportation system improvement projects that have been expensed from 1996 to 2002 years.

TABLE 6-4 HISTORICAL ROADWAY IMPROVEMENT EXPENSES

Fiscal Year	Facility	Location	Description	County Share in Millions
	,		·	
96-97	ARNOLD/BELLINGER	HULL - ORE 238	UPGRADE TO STANDARD	\$1,224,471
96-97	EAST EVANS CREEK	SYKES CREEK TO PLEASANT	UPGRADE TO STANDARD	\$259,163
96-97	ROGUE RIVER DRIVE	MP 3.43 - MP 4.39	UPGRADE TO STANDARD	\$374,141
97-98	APPLEGATE ROAD	ORE 238 - MP 2.0	UPGRADE TO STANDARD	\$129,924
97-98	NICK YOUNG ROAD	ORE 62 - AGATE ROAD	UPGRADE TO STANDARD	\$88,036
96-97	TABLE ROCK	TOUVELLE BRIDGE	(COUNTY PORTION)	\$568,000
98-99	ANTELOPE ROAD	ATLANTIC - KERSHAW	UPGRADE TO STANDARD	\$172,210
98-99	ANTELOPE ROAD	PACIFIC - 1050' EAST	UPGRADE TO STANDARD	\$141,371
98-99	FOOTHILL ROAD	NEAR DELTA WATERS	UPGRADE TO STANDARD	\$302,939
99-00	SOUTH STAGE	KINGS HWY - J-VILLE	UPGRADE TO STANDARD	\$2,549,754
99-00	KIRTLAND ROAD	HIGH BANKS - TABLE ROCK	UPGRADE TO STANDARD	\$754,303
00-01	HAMRICK / VILAS ROAD	BIDDLE - TABLE ROCK	UPGRADE TO STANDARD	\$1,271,028
00-01	OAK GROVE ROAD	STEWART - HWY 238	UPGRADE TO STANDARD	\$893,645
01-02	VILAS	HIGHWAY 62 - TABLE ROCK	(1/2) COUNTY MATCH	\$350,000
01-02	LEIGH WAY	AGATE - 550 ' EAST	UPGRADE TO STANDARD	\$303,399
01-02	HOUSTON ROAD	COLEMAN - COLVER	UPGRADE TO STANDARD	\$553,788
01-02	SOUTH VALLEY VIEW	99 - LOWE ROAD	UPGRADE TO STANDARD	\$519,934
Total				\$10,456,105
Average				\$1,742,684.11

The five-year capital improvement program included with Jackson County Road's budget includes about \$1.8 million a year for roadway improvement projects. Historical expenditures support this as a reasonable figure to use in the TSP for projected funding available for projects. One other factor that effects the funding outlook for the County TSP is jurisdictional exchanges and transfer payments to cities. Many of the projects in the County TSP are entirely within UBGs and it is anticipated that some cost sharing will occur.

The TSP presents both a financially constrained capital project plan (Tier 1), and other unfunded projects (Tier 2) that are required to fully address all of the transportation needs identified through the TSP process. New sources of funding, and/or increasing the revenue available from existing funding sources, will be required to meet all of the county's transportation needs.

The sequencing plan presented in the TSP is not detailed to the point of a schedule identifying specific years when infrastructure should be constructed. Instead, projects are assigned to short-term and mid-term (0-10 years) and long-term (11-20 years) horizon periods. In this manner, the implementation of identified system improvements has been staged to spread investment in the

county's transportation infrastructure over the 20-year life of the plan. The county will need to periodically update its TSP, and will review the need and timing for longer-term improvements at those times. Prioritizing specific near-term projects will occur annually when the county updates its capital improvement program for the upcoming year.

This section includes the projects that are included in the RTP and also includes the STIP modernization, operation and bridge projects in the county. Some of the funding for these projects may come from local cities and the state, as indicated in Table 6-5. Cost estimates for RTP and STIP projects were obtained from those programs; planning-level cost estimates for other TSP projects were developed for the TSP. Due to differences in cost estimation methodologies, projects with similar lengths may have differing cost estimates. Costs will be refined as projects proceed into design and construction.

Projects generally were selected for Tier 1 (financially constrained) status using the following criteria:

- Projects appearing in the draft 2004-07 STIP were included as short-term projects. Although the draft STIP is subject to change until the final version is adopted, it is assumed that any projects removed from the final STIP would still have high priority for funding in future STIPs. A number of short-term high-cost projects on state facilities are currently proposed for funding in the draft STIP. The total cost of these projects exceeds the assumed 20-year budget for non-bridge projects. As a result, no major new state capital projects were added to the TSP.
- State and County projects appearing in the 2002 RTP's Tier 1 list were generally included, and generally in the same timeframes identified in the RTP, with appropriate time adjustments reflecting the different adoption dates of the RTP and the TSP. A few project adjustments were required due to the dramatic increase in geographic area of the MPO since the last RTP update.
- Once the previously planned projects were allocated with applicable adjustments, the remaining dollars were applied to the highest priority projects identified through the TSP process. The paragraphs above provide the basis for expected available dollars for projects at an allocation rate of \$1.8 million per year for the first 10-years. A little more money is expected in the second ten years, because some money that is currently spent on maintenance may be available as more roads are transferred to the cities. This budget was generally sufficient to accommodate the short- and medium-term Tier 1 RTP projects that were not affected by changes in MPO geography. The RTP assumed a higher budget for long-term County projects than the TSP does and, therefore, not all of the long-term Tier 1 RTP projects (mostly rural road shoulder improvements) could be accommodated in the TSP's Tier 1. This is an inconsistency between the two plans that will need to be reconciled in the upcoming 2005 update to the RTP.

The construction of roads, water, sewer, and electrical facilities in conjunction with local development activity should be coordinated if Jackson County is to develop in an orderly and efficient way. Consequently, the plans proposed in the TSP should be considered in light of developing infrastructure sequencing plans, and may need to be modified accordingly.

TABLE 6-5 TRANSPORTATION IMPROVEMENT PROJECTS

	RTP/					Fund	ing S	ource	es		
	STIP				Primary	μ	County	S	_	Project	County
Project	-				Project	DOT	our	Cities	Other	Cost in	Share in
Numbe	er Number	Facility	Location	Description	Purpose	0			0	Millions	Millions
				Roadway Improvements (financially		12004	1-201	3)			
	1 (CMAQ)	Avenue A	Atlantic to Kershaw	New 2-Lane Rural Minor Collector	Capacity				X	\$0.80	•
	2	Agate Rd	Hwy 62 to Ave G	Upgrade to Industrial Collector	Capacity				X	\$1.50	•
	3	Antelope Road	Agate Intersection	New Traffic Signal	Capacity				X	\$0.38	\$0.00
	4	Antelope Road	Table Rock to 7th	Widen to 5 Lane Urban Arterial	Capacity				X	\$2.88	\$0.00
	5	Atlantic Avenue	Ave A to Ave G	Upgrade to Urban Standard	Capacity				X	\$2.60	\$0.00
	6	Avenue G	Agate to Kirtland	Upgrade to Industrial Collector	Capacity				X	\$2.00	\$0.00
	7	Avenue G	HWY 62 to Atlantic	Upgrade to 3-Lane Urban Standard	Capacity				X	\$2.60	\$0.00
	8	Avenue H	Wilson Way to WCUUCB	Upgrade to Urban Standard	Capacity				X	\$0.40	\$0.00
	9 RTP-229	Beall Lane	HWY 99 to Merriman	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$1.12	\$1.12
1	0 STIP-12549	Fern Valley Road	Bear Creek Bridge	Widen bridge structure	Bridge	X				\$8.56	\$0.00
1	1	Foothill Road	Corey to Atlantic	New Two Lane Rural Major Collector	Capacity		X			\$1.50	\$1.50
1	2 STIP-12718	HWY 140	Kershaw Road	Install Advance Warning Beacon	Safety	X				\$0.43	\$0.00
1	3 STIP-12734	HWY 238	Bybee Corner	Improve Intersection Geometry	Capacity	X				\$2.86	\$0.00
1	4 RTP-7	HWY 238	N Ross to Old 238	Widen to 2 lane with bike lanes	Capacity	X				\$6.95	\$0.00
1	5 RTP-8/23	HWY 62	Agate Intersection	Realign and Signalize	Operation	X				\$0.66	\$0.00
1	6	Highway 62	HWY 140	Widen Approaches	Capacity	X	X			\$0.50	\$0.50
1	7 RTP-216	West Main	Oak Grove to Elm	Upgrade to 3-Lane Urban Standard	Capacity		X			\$1.60	\$1.60
1	8 RTP-226	Leigh Way	Agate to Antelope	New Rural Arterial	Capacity		X			\$1.75	\$1.75
1	9 RTP-217	Lozier Lane	Stewart to W Main	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$1.28	\$0.64
2	20 RTP-218	N Ross Lane	McAndrews to Rossanley	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$1.50	\$0.50
2	21 RTP-230	Stewart	Hull to Thomas	Upgrade to 3-Lane Urban Standard	Capacity		X	x		\$0.50	\$0.50
2	2 RTP-215	Table Rock	Wilson to Antelope	Widen to 5 Lane Urban Arterial	Capacity		X			\$2.94	\$2.94
2	23 RTP-228	Table Rock	Biddle to Bear Creek	Upgrade to 3-Lane Urban Standard	Capacity		X	x		\$1.12	•
	24 RTP-233	Table Rock	Wilson Intersection	New Traffic Signal	Capacity		X			\$0.23	•
	25	Pine Street	Haskell to Hanley	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$0.73	•
	26		te City Freight Mobility Improve	10	Freight	x	X			TBD	\$1.00
_	<del></del>		,g								ψσσ

\$4.35

24%

\$18.48

\$9.43

\$56.82

17%

Funding Sources

	RTP/						3				
	STIP										
	Project				Primary	_	₹			Project	County
Project	ID				Project	.00	County	Cities	Jer	Cost in	Share in
Number	Number	Facility	Location	Description	Purpose	0	ပိ	Ë	Othe	Millions	Millions
Total Pla	anned Exp	enditures on Roa	dway Improvement Proje	cts (2004-2013)						\$47.39	\$14.13
		Tier 1 - Short	and Medium Range Bicyc	cle and Pedestrian Projects (finar	cially contra	ained	2004	-201	3)		
1		Bear Crk. Greenway	Various Gaps	Complete Path Ashland to Central Pt.	Bike/Ped				X	\$4.50	\$0.00
2		Carpenterhill Road	Voorhies to Coleman	Upgrade to Rural Major Collector	Bike/Ped		X			\$0.15	\$0.15
3		East Pine	Table Rock to Hamrick	Add bike lanes and sidewalks	Bike/Ped		X	X		\$0.04	\$0.04
4		East-West Pathway	29th Area to Division	White City Residential Bike/Ped Path	Bike/Ped				X	\$0.58	\$0.00
5		Foothill Road	Delta Waters to Coker Butte	Upgrade to Rural Arterial (Shoulders)	Bike/Ped		X	X		\$0.76	\$0.76
6		Foothill Road	Coker Butte to Corey	Upgrade to Rural Arterial (Shoulders)	Bike/Ped		X			\$0.90	\$0.90
7		Old Stage Rd	Winterbrook to Blackwell	See Corridor Management Plan	Bike/Ped		X			\$2.50	\$2.50

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Total Planned Expenditures on Bicycle and Pedestrian Improvement Projects (2004-2013)

% of Expenditures on Primarily Bicycle and Pedestrian Improvement Projects (2004-2013)

Total Planned Expenditures on Bicycle and Pedestrian and Roadway Improvement Projects (2004-2013)

RTP/ STIP Project Project				Primary Project	Func	ding S onut?	Cities	Other 88	Project Cost in	County Share in
Number ID	Facility	Location	Description	Purpose	10	ပိ	Ë	ŏ	Millions	Millions
	Tier	1 - Long Range Roadwa	y Improvement Projects (financi	ally contraine	ed 20°	14-20	23)			
27 RTP-232	Beall Lane	Bursell Intersection	New Traffic Signal	Operation		X	X		\$0.23	\$0.23
28 RTP-21	Fern Valley	N. Phoenix Intersection	New Traffic Signal	Operations	X		X		\$0.38	\$0.00
29	Foothill Rd	McAndrews to Delta Waters	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$2.24	\$1.24
30	Foothill Rd	Hillcrest to McAndrews	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$3.02	\$1.52
31 RTP-231	Hanley Rd	Beall to Pine	Upgrade to 3-Lane Urban Standard	Capacity		X	X		\$0.75	\$0.75
32 RTP-224	Kings HWY	S. Stage to UGB	Upgrade to 3-Lane Urban Standard	Capacity		X			\$0.25	\$0.25
33	Lakeview Dr.	Lakeview to McLoughlin	Realign minor collector	Capacity		X			\$1.39	\$1.39
34	S. Valley View	I-5 to Highway 99	Upgrade to 5-Lane Arterial	Capacity	X	X		X	\$8.00	\$4.00
35 RTP-227	Vilas Rd	Haul Rd. to Crater Lake Ave	Upgrade to 5-Lane Arterial	Capacity		X	X		\$1.60	\$0.80
36	Placeholder for	Freight Mobility improvements	from study.	Capacity	X	X			\$2.00	\$2.00
37	Wilson Way	Ave H to Dutton	Upgrade to Standard	Capacity				Χ	\$0.30	\$0.30
Total Planned E	xpenditures d	on Roadway Improveme	ent Projects (20014-2023)						\$20.16	\$12.48

RTP	1				Fund	ing S	ource	es		
STIF	•			Primary	_	\$			Project	County
Project Proje	ect			Project	ОДО	County	Cities	Other	Cost in	Share in
Number ID	Facility	Location	Description	Purpose	0	ပိ	Ë	₹	Millions	Millions
	Tier	1 - Long Range Bike Ped I	mprovement Projects (financia	lly contrained 2	014-2	023)				
8 RTP-2	241 Bigham Brown	Antelope to Eagle Point	Upgrade to Rural Major Collector	Bike/Ped		Χ			\$0.95	\$0.95
9 RTP-2	253 Coleman Creek	Pioneer to Voorhies	Upgrade to Rural Minor Collector	Bike/Ped		Χ			\$1.25	\$1.25
10 RTP-2	236 Griffin Creek Rd	Pioneer to South Stage Rd	Upgrade to Rural Major Collector	Bike/Ped		Χ			\$1.17	\$1.17
11 RTP-2	254 Hillcrest Road	Cherry Ln to Gardener	Add shoulder bikeways	Bike/Ped		Χ			\$0.25	\$0.25
12 RTP-2	250 Hull Road	South Stage Rd to Stewart St	Upgrade to Rural Minor Collector	Bike/Ped		Χ			\$0.40	\$0.40
13	Pioneer (Phase1)	Colver to Coleman	Upgrade to Rural Minor Collector	Bike/Ped		Χ			\$1.50	\$1.50
14	Pioneer (Phase2)	Griffin Creek to Carpenter Hill	Upgrade to Rural Minor Collector	Bike/Ped		Χ			\$1.50	\$1.50
15 RTP-2	39 Taylor Road	Old Stage Rd to Grant	Upgrade to Rural Major Collector	Bike/Ped		Χ			\$1.00	\$1.00
16 RTP-2	244 Upton Road	Raymond to Gibbon Rd	Upgrade to Rural Major Collector	Bike/Ped		Χ			\$0.70	\$0.70
17	VA Dom	to Antelope Rd	Multi-Use Pathway	Bike/Ped	Х			Χ	\$0.65	\$0.00
18 RTP-2	249 Voorhies Rd	Carpenter Rd to S Stage Rd	Upgrade to Rural Major Collector	Bike/Ped		Χ			\$0.45	\$0.45
Total Planned	<b>Expenditures on</b>	Bicycle and Pedestrian I	mprovement Projects (2014-2	023)					\$9.82	\$9.17
Total Planned	Expenditures on	Bike/Ped and Roadway I	mprovement Projects (2014-2	023)					\$24.75	\$21.65
% of Planned	Expenditures on I	Primarily Bike/Ped Project	ets (2014-2023)						40%	42%

	RTP/					Func	ling S	Source	es		
Project	STIP Project				Primary Project	O	County	Se	er	•	County Share in
Numbe	•	Facility	Location	Description	Purpose	O	Ş	Cities	Othe	Millions	Millions
TAGITIOC	םו וו	1 don'ty		nded Roadway Improvement F						TVIIIIOI IS	IVIIIIOI IS
	00	A. G. L D. L		7 1	•		v			Ф0.00	<b>#</b> 0.00
	38	Antelope Rd	HWY 62 Intersection	Widen Intersection Approaches	Capacity	X	X			\$0.60	\$0.60
	39	Eagle Mill Rd	S. Valley View to Oak	Upgrade to Rural Minor Collecor	Capacity		Χ			\$4.50	\$4.50
	40	Gibbon Rd	Upton to Table Rock	Upgrade to 3-Lane Urban Collector	Capacity		X			\$1.25	\$1.25
	41 RTP-257	Peninger Rd	Pine St. to Expo Park	Upgrade to 3-Lane Urban Collector	Capacity		X			\$1.28	\$1.28
	42	Rogue River Dr.	M.P 5 to Shady Cove	Upgrade to Rural Major Collector	Capacity						
	43 RTP-204	Sage Rd	Posse to Ehrman	Upgrade to 3-Lane Urban Collector	Capacity		X		X	\$1.76	\$0.00
	44	W. Antelope	Kirtland Intersection	Realign Intersection	Capacity		X			\$0.70	\$0.70
	45	W. Dutton	Terminus to Agate	New Industrial Collector	Capacity		X		X	\$3.43	\$1.50
	46	Wilson Way	Ave G to Ave F	New Urban Minor Collector	Capacity		X			\$1.17	\$1.17
Total T	ier 2 - Unf	unded Roadw	ay Improvement Pro	ojects						\$14.69	\$11.00

RTP/					Fund	ling S	Sourc	es		
STIP				Primary	F	Jt.	S	_	Project	County
Project Project				Project	ОБОТ	County	Cities	Other	Cost in	Share in
Number ID	Facility	Location	Description	Purpose	0	Ö	Ö	Ó	Millions	Millions
		Tier 2 - Unfun	ded Bike/Ped Improvement Pro	ojects						
19	Applegate Road	Hwy 238 to Hamilton	Upgrade to Rural Major Collector	Bike/Ped		X			\$3.50	\$3.50
20	Bellinger Road	South Stage to Hull	Upgrade to Rural Major Collector	Bike/Ped		X			\$1.50	\$1.50
21	Crater Lake Avenue	Coker Butte to Corey	Upgrade to Rural Minor Collector	Bike/Ped		X	X		\$1.22	\$1.22
22	East Evans Creek Rd	Rogue River- Pleasant Cr	Upgrade to Rural Major Collector	Bike/Ped		X			\$3.89	\$3.89
23 RTP-238	Gregory Road	Table Rock to Highway 62	Upgrade to Rural Minor Collector	Bike/Ped		X			\$1.00	\$1.00
24	Highway 234	Antioch to 4 <sup>th</sup> Ave (G. Hill)	Upgrade to Rural Arterial	Bike/Ped	X				\$7.75	\$0.00
25	Highway 238	Applegate to Thompson	Upgrade to Rural Arterial	Bike/Ped	X				\$5.79	\$0.00
26	Highway 62	Shady Cove to Elk Creek	Upgrade to Rural Arterial	Bike/Ped	X				\$4.84	\$0.00
27	Highway 66	I-5 to Crowson Road	Upgrade to Rural Arterial	Bike/Ped	X				\$0.88	\$0.00
28	Highway 99	County Line to Gold Hill	Widen shoulders	Bike/Ped	X				\$5.46	\$0.00
29	Highway 99	Medford to Ashland	Add sidewalks, bike lanes	Bike/Ped					TBD	\$0.00
30 RTP-28	Highway 99	Highway 238 to Beall Lane	Upgrade to Urban Arterial	Bike/Ped	X				\$1.90	\$1.90
31	Nick Young Road	Agate to Highway 62	Upgrade to Rural Major Collector	Bike/Ped		X			\$2.00	\$2.00
32	North River Road	Rogue River- Gold Hill	Upgrade to Collector	Bike/Ped		X			\$4.75	\$4.75
33	Oak Street	W Nevada to Eagle Mill	Add sidewalks, bike lanes	Bike/Ped		X	X		\$0.60	\$0.60
34	Pioneer Rd (Phase 3)	Griffin Creek to Voorhies	Upgrade to Rural Minor Collector	Bike/Ped		X			\$3.00	\$3.00
35 RTP-242	Riley Road	Antelope to Stevens	Upgrade to Rural Minor Collector	Bike/Ped		X	X		\$0.95	\$0.95
36 RTP-235	Scenic Ave	Oldt Stage to Grant Rd	Upgrade to Rural Minor Collector	Bike/Ped		X			\$1.40	\$1.40
37 RTP-221	Vilas Rd	Crater Lake Av to Foothill	Upgrade to Rural Major Collector	Bike/Ped		X			\$1.00	\$1.00
38 RTP-246	Wilson Rd	Upton to Table Rock	Add shoulder bikeways	Bike/Ped		X			\$0.65	\$0.65
Total Tier 2 - Unf	funded Bicycle Imp	provement Projects							\$52.08	\$27.36
		nd Roadway Improveme	ent Projects						\$69.51	\$41.10
Total Tier 2 - % E	Bicycle Improveme	nt Projects	-						<b>75</b> %	67%

# Transportation Planning Rule Compliance

In 1991, the Oregon Transportation Planning Rule (TPR) was adopted to implement State Planning Goal 12, Transportation (amended in May and September 1995). The Transportation Planning Rule requires all jurisdictions to complete a Transportation System Plan, including policies and ordinances to implement that plan.

The applicable portion of the Transportation Planning Rule is found in OAR Section 660-12-045, Implementation of the Transportation System Plan. In summary, the Transportation Planning Rule requires that local governments revise their land use regulations to implement the Transportation System Plan (TSP) in the following manner:

- Amend land use regulations to reflect and implement the Transportation System Plan.
- Clearly identify which transportation facilities, services, and improvements are allowed outright, and which will be conditionally permitted or permitted through other procedures.
- Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics:
  - o access management and control;
  - o protection of public use airports;
  - o coordinated review of land use decisions potentially affecting transportation facilities;
  - o conditions to minimize development impacts to transportation facilities;
  - o regulations to provide notice to public agencies providing transportation facilities and services of land use applications that potentially affect transportation facilities;
  - o regulations assuring that amendments to land use applications, densities, and design standards are consistent with the Transportation System Plan.
- Adopt land use or subdivision regulations for urban areas and rural communities to
  provide safe and convenient pedestrian and bicycle circulation and bicycle parking, and to
  ensure that new development provides on-site streets and accessways that provide
  reasonably direct routes for pedestrian and bicycle travel.
- Establish street standards that minimize pavement width and total right-of-way.

This memorandum provides a preliminary draft of changes to the Jackson County Land Development Ordinance (LDO) that will likely be needed to fully implement the new TSP<sup>1</sup> and comply with the TPR. These draft changes are intended to provide staff, Planning Commission, and Board of Commissioners with a preliminary look at the suggested modifications to the LDO that may be recommended for adoption as part of the TSP planning process. The 2003 Recommended Jackson County Land Development Ordinance was the basis of this review. The LDO is divided into 13

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<sup>&</sup>lt;sup>1</sup> The TSP document referenced is the Jackson County, Oregon, Transportation System Plan ("JCTSP" or "County TSP"), Draft Plan. A separate White City Transportation System Plan ("White City TSP") was completed in tandem with the County's TSP but is not included as part of this TPR compliance review.

chapters, with Chapter 12 dedicated to the White City Urban Unincorporated Community. Process and review provisions relevant to the TPR are found in Chapter 2, Review and Decision-Making, and Chapter 3, Application Review and Decision. Most of the transportation-related regulations are in Chapters 9, General Development Regulations, and Chapter 10, Land Division. Other Chapters of the LDO that include sections that address TPR requirements are Chapter 6, Use Regulations, Chapter 4, Resource Districts, Chapter 7, Overlays, and Chapter 8, Dimensional Standards.

The following table lists the applicable implementation elements of the TPR (OAR 660-012-0045) and demonstrates where the LDO complies with the TPR and where the LDO may need amendments to language or additional language to comply with the TPR. Comments are included in *bold italic* text where amendments are suggested. In addition, the Definitions section of the LDO (Chapter 13) will need to be reviewed and possibly amended dependent on other amendments made throughout the ordinance.

TABLE 7-1 TPR REQUIREMENTS AND THE 2004 JACKSON COUNTY LDO

TPR Requirement (OAR 660.012-0045)	LDO Compliance/Recommendations
(1) Each local government shall amend its land use regulations to implement the TSP.	
(b) A transportation facility, service, or improvement may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment.	Chapter 6, Use Regulations, includes use-specific regulations. Section 6 covers Transportation Uses. Unless subject to overlay standards, transportation improvements such as bridges, culverts, streets, roads, highways, bike paths and pedestrian access do not require land use application approval for installation, repair or replacement within existing rights-of-way (Section 6.3.5(C)(1)).
	Off-road recreational bike paths are Type 1 uses (permitted by-right, non-discretionary staff review) within any development. Bike paths ("all types") require a Type 2 permit in all zones (Table 6.2.1: Use Table for Base Zoning Districts).
	Per Chapter 3, Application Review and Decision, creation of public roads or streets requires a Type 4 application procedure; partitions that include the creation of a private road or street are processed as a Type 3 procedure (Section 3.3.2).
	Chapter 4, Resource Districts, includes permitted use tables for Exclusive Farm Use (EFU), Forest Resource (FR), and Aggregate Removal (AR). EFU and FR use tables include transportation use regulations and the governing OAR sections; transportation improvements are Type 1 uses in the AR district.
	In the EFU District transportation use regulations include personal use airports (Section 4.2.9(A); relevant ORS and OARs cited) and roads, highways, and other transportation facilities and improvements (Section 4.2.9(B)); OAR 660-012-0065, -0070 cited).
	Section 4.3.8(A), transportation use regulations for the FR District, lists the public road and highway projects in ORS 215.283(1)(k)-(n) (widening roads within existing rights-of-way). Section (B) includes public road and highway projects in ORS 215.283(2)(p)-(r) and requires these uses to be reviewed as a Type 2 use.
	Chapter 7, Overlays, includes Environmental and Cultural, Transportation and Public Facility, and Urban Overlays.

TPR Requirement (OAR 660.012-0045)	LDO Compliance/Recommendations
	Section 7.1, Environmental and Cultural Overlays, specifies that use of land so designated will be governed by the underlying zoning regulations. Section ASC 90-9 Scenic Resources does specify that existing road rights-or-way will be used whenever possible in order to avoid creating new roadways for access, but does not prohibit new transportation facilities.
	Section 7.1.2, Floodplain Overlay, does not require a floodplain review for parking areas, bike paths and roadways unless a building permit is required for excavation or fill or the development will be in the FEMA mapped floodway (7.1.2(B)(2)(a)).
	Section 7.1.3, Jackson County Public Park (JCPP) Overlay, includes the provision that uses allowed in the underlying zoning district may be permitted in the JCP Overlay subject to the requirements, standards and approval procedure required by the underlying zone (7.1.3.(C)(2)).
	Section 7.2, Airport Approach (AA) and Airport Concern (AC) Overlays, does not contain provisions related to permitted transportation facilities.
	Comment: Chapter 7 could be amended to include a general section regarding permitted transportation facilities and/or clarification that the underlying zoning regulations apply. Alternatively, each overlay in Chapter 7 could include a section that addresses transportation improvements.
	Section 7.2.2, Airport Boundary Overlay, identifies permitted airport uses, but does not include roadway, parking, pedestrian or bicycle uses.
	Comment: Section 7.2.2 should be amended to specify airport-specific transportation uses.
	Section 7.2.3(A) ASC 93-2 Transit Oriented Development (Areas of Special Concern) includes requirements for "transit trunk routes" in the County, identified as the ASC 93-2 Transit Oriented Development area. Requirements include transit facilities, park-and-ride lots, and, for new retail, office and institutional buildings, "preferential access" (building orientation).
	Section 7.3.2, Area of Special Concern, ASC 92-1 Whetstone Industrial Park, includes access to parcels and circulation of interior roads but does not include facilities or standards for circulation of cyclists or pedestrians.
	Comment: The LDO should be amended to include non-motorized modes of transportation in Whetstone Industrial Park Area of Special Concern.
	Chapter 12, The White City Urban Unincorporated Community, includes a section regulating street intersections, design and connectivity, as well as bicycle and pedestrian connectivity (12.8), but does not specify use type for transportation facilities.
	Comment: Chapter 12 should be amended to either reference use regulations in Chapter 6, or should include a section that clarifies what transportation facilities are permitted outright.
(c) Local governments shall provide a review	Chapter 2, Review and Decision-Making, includes

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and approval process that is consistent with 660-012-0050 (Transportation Project Development). Local governments shall amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.	procedures for land use application review. While applications for more than one land use decision may be combined and heard or reviewed concurrently (Section 2.6.5), this consolidated review does not specifically address transportation projects.
	Comment: The County should consider amending this Chapter 2 to include a section specific to consolidated review of land use decisions related to transportation projects.
	Regarding White City, Section 12.1, Applicability, states that when standards or criteria in Chapter 12 conflict with other parts of the LDC, the standards and criteria in Chapter 12 will govern development approvals granted within White City. It does not state that when Chapter 12 is silent regarding procedures or criteria for approval that the applicable section of the LDO applies. The County should amend Chapter 12 to include such "catch all" language, or include a specific provision that states procedures for land use application review are in Chapter 2 of the LDO.
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities for their identified functions.	
(a) Access control standards	Chapter 9, General Development Regulations, includes a section on access design standards (Section 9.5). The County may control access via a "control strip/street plug" to prevent or limit access to arterials and collectors (9.5.1(C)(5)).
	Comment: Section 9.5 does not discuss other methods of access control (such as frontage roads). In addition, the LDO does not contain driveway spacing standards and may need to be amended to conform to standards in the Oregon Highway Plan.
	The Highway 62 Special Land Area Use Plan and Highway 99 Medford-Phoenix Special Area Plan (Areas of Special Concern, Section 7.2.3, identified as "reserved" sections in the October Draft LDO) should include access control standards.
	Chapter 12, The White City Urban Unincorporated Community, includes standards to restrict access to Avenue "A" (Section 12.3.2).
	Comment: The County may want to establish access control standards for other major streets in White City, or specify that provisions in Chapter 9 also apply.
(b) Standards to protect the future operations of roadways and transit corridors	Chapter 3, Application Review and Decision, includes site development approval criteria. Section 3.2.4(C) states that the site design must promote "a proper relationship between existing and proposed streets and highwaysin order to assure the safety and convenience of pedestrian and vehicular traffic; to ensure efficient traffic flow and control; and so as not to create or contribute to undue traffic congestion on abutting streets."
	Comment: The approval criteria in Chapter 3, while providing guidance to decision-makers, does not constitute standards that are designed to protect transportation facilities. The LDO should be

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	amended to include, or make reference to, projected ADT and street cross-sections, level-of-service, traffic impact analysis, and future transit operations. This information would best be included in the design and improvement standards in Chapter 10, Land Division, or Chapter 9 General Development Regulations. Standards specific to White City should be included in Chapter 12.
(c) Control of land use around airports	In the <b>Airport Approach (AA) Overlay</b> parking areas and park-and-ride lots must be located so that vehicle lights will not interfere with the piloting of planes (6.3.3(V)).
	Section 6.3.6 requires that proposed transmission facilities be reviewed and approved by the Oregon Dept. of Aviation and FAA to ensure that proposed towers will not encroach into protected airspace (Section 6.3.6(A)(5)(d)).
	The Airport Approach (AA) and Airport Concern (AC) Overlays includes restrictions on specific uses (Section 7.2(C)); the Airport Boundary (AB) Overlay, identifies permitted airport uses.
(d) Coordinated review of future land use decisions affecting transportation facilities	Chapter 2, Review and Decision-Making, includes procedures for "simultaneous" land use application review (Section 2.6.5). The Chapter also requires that notification be made to "any agencies or other jurisdictions that may be affected by the proposed action."
	Comment: The LDO does not contain specific requirements for notice to ODOT for applicable land use applications. Chapter 2 should be amended to include such provisions.
	Chapter 12 should be amended to clarify that procedures for land use application review are in Chapter 2 of the LDO.
(e) Process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities	Chapter 2, Review and Decision-Making, allows for the application for conditions to development proposals (Section 2.6.7).
	Chapter 10, Land Division, states that the County may impose conditions of approval necessary to implement the Comprehensive Plan and the LDO when granting approval of a tentative plan (Section 10.3(B)).
	Comment: While Section 10.3 specifies that conditions may include dedication of land for roads, the County may want to add that minimizing impacts to transportation facilities will be also be a factor in imposing conditions.
	Chapter 12 should be amended to clarify that conditions of approval may be imposed, per Chapter 2 and/or Chapter 10 of the LDO.
(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of: land use applications that require public hearings, subdivision and partition applications, applications which affect private access to	Chapter 2, Review and Decision-Making, includes the notice requirements for the standard review procedure for development applications.  Comment: Chapter 2 does not contain specific requirements for notice to ODOT, RVMPO/RVCOG, or other agencies for applicable land use

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roads, applications within airport noise corridor and imaginary surfaces which affect airport operations.	applications and should be amended to include such provisions. Section 7.2.1 (Airport Approach and Airport Concern Overlays) could also be amended to specify the type of public agency notification necessary for land use applications that may affect airport operations.
	Chapter 12 should be amended to clarify that procedures for land use application review are in Chapter 2 of the LDO.
(g) Regulations assuring amendments to land use designations, densities, design standards are consistent with the function, capacities, and levels of service of facilities designated in the TSP.	Chapter 3, Application Review and Decision, requires that amendments to the to the Comprehensive Plan or Zoning Maps must comply with all applicable Statewide Planning Goals, Administrative Rules and the County's Comprehensive Plan (Section 3.7.3). In addition, Minor Comprehensive Plan Map or Zoning Map amendments require that adequate transportation facilities exist, or can be provided to the subject property (Section 3.7.3(C)(1)).
	Comment: The standards in Chapter 3 do not directly require amendment consistency with the function, capacities, and levels of service of facilities designated in the JCTSP and should be amended to include the standards identified in the JCTSP.
	Chapter 12 should be amended to include similar language, referencing the White City TSP.
(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth in 660-012-0040(3)(a-d):	
(a) Provide bike parking in multifamily developments of 4 units or more, new retail, office and institutional developments, transit transfer stations and park-and-ride lots	Chapter 9, General Development Regulations, requires bicycle parking for "multi-family development in excess of four units, commercial, or parks/public/quasi-public uses within the AQMA."  The requirement to provide a designated area for bicycle parking within 50 feet of a public entrance applies when new vehicle parking areas exceed 10 motorized spaces (Section 9.4.7).
	Section 9.5.5(C) specifies that non-residential uses or multi-family uses require on-site bicycle parking areas.
	ASC 93-2 Transit Oriented Development (7.2.3 Areas of Special Concern) requires that transfer stations and park-and-ride lots will provide bicycle parking facilities as part of the development (7.2.3(2)(b)).
	Comment: It is not clear that multifamily development of 4 units or more, new retail, office and institutional developments are all land uses that require bike parking, in all areas of the County where such developments are allowed. Section 9.4.7 in the LDO should be revised to include the specific uses and, if necessary, clarify that the AOMA is subject to additional requirements.
	Chapter 12 should be amended to include bicycle parking provisions, consistent with the White City TSP, or include language that references standards in other sections of the LDO.
(b) Provide "safe and convenient" (per subsection 660-012-0045.3(d)) pedestrian and bicycle connections from new	Sidewalks and bike paths are included in <b>Chapter 9</b> , <b>General Development Regulations</b> , requirements. Section 9.5.5(C) specifies that non-residential uses

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subdivisions/multifamily development to neighborhood activity centers; bikeways are required along arterials and major collectors; sidewalks are required along arterials, collectors, and most local streets in urban areas except controlled access roadways

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or multi-family uses require bicycle pathways between public bicycle lanes or trails. The County may require dedicated bicycle pathways when such pathways are designated in the Jackson County Bicycle Master Plan. **Chapter 10, Land Division**, further specifies that bicycle access will be required for divisions when necessary to provide for intra urban or inter urban bicycle transportation (Section 10.4.3(E)).

Sidewalks may be required when a proposed development or land division is within an urban growth boundary or urban unincorporated community. Sidewalks may also be required outside these areas if 1) the subject property is located within one-quarter mile of a school, shopping center, recreation area, or other use likely to induce pedestrian traffic, or 2) the surrounding area has developed with sidewalks or is zoned for urban residential, commercial, or industrial uses (Sections 9.5.6(A) and 10.4.3(F)(1), (2). Section 10.4.3(F) states that sidewalks will be required when a proposed division is within an urban growth boundary or urban unincorporated community and lists the conditions under which they are required outside these areas.

Buffering requirements in **Chapter 8, Dimensional Standards**, Measurements and Adjustments, specify that sidewalks will be required along primary road frontages in commercial zones located within the White City Urban Unincorporated Community and the South Pacific Highway Containment Boundary (Section 8.4.3(B)(4)).

Chapter 12, The White City Urban Unincorporated Community, contains street standards specific to this area, which include bicycle and pedestrian access standards (12.8.1(H)). This section emphasizes connectivity and references the White City Transportation Connectivity Plan Map, the Comprehensive Bicycle Plan for Jackson County, and the Jackson County Transportation System Plan

Comment: Chapter 9 should be amended to address the provision of bicycle lanes and sidewalks on arterials and collectors. Sections in Chapter 9 and 10 should be revised for consistency and amended to require sidewalks in new residential developments and along local streets.

The design and improvement standards in Chapter 10 (Section 10.4) should be amended to include or reference street cross-sections that identify bicycle lanes and/or sidewalks, such as those shown in the October 2003 Jackson County Transportation System Plan. Chapter 9 (Sections 9.5.5 and 9.5.6) could be amended to include standards for bicycle lanes and sidewalks (such as width and construction material). For bicycle-related improvements, the LDO could cross-reference standards in the Jackson County Bicycle Master Plan.

Chapter 12, The White City Urban Unincorporated Community, should also include standards for bicycle lanes and sidewalks that address location, design, and construction, or reference the applicable sections in the LDO and JCTSP or Jackson County Bicycle Master Plan.

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(c) Off-site road improvements required as a condition of development approval must accommodate bicycle and pedestrian travel, including facilities on arterials and major collectors	Comment: The LDO does not specifically require bicycle or pedestrian improvements on arterials and major collectors. Chapter 10, Land Division, or Chapter 9, General Development Regulations, should be amended to include this requirement. Chapter 12 should also address this TPR requirement.
(e) Provide internal pedestrian circulation within new office parks and commercial developments	Required road improvements for commercial and industrial land divisions in <b>Chapter 9, General Development Regulations</b> , may include dedication of right-of-way for, and construction of, sidewalks (Section 9.5.1(D)(1), (2)).
	Comment: Sections in Chapter 9 and 10 that address sidewalks should be amended to state that sidewalks are required in new office parks and commercial developments for purposes of internal pedestrian circulation.
	Section 12.7.1, Development Standards, for industrial zones in the White City Urban Unincorporated Community should also include provisions for internal pedestrian circulation.
5) In MPO areas, local governments shall adopt land use and subdivision regulations to reduce reliance on the automobile:	
(a) Allow TODs on lands along transit routes	ASC 93-2 Transit Oriented Development (7.2.3 Areas of Special Concern) specifies the required design elements of transit routes, when transit stops are required, and commercial building orientation.
	Comment: The Transit Oriented Development section of the LDO does not contain land use densities, uses, or building design and location specifications typically associated with transit oriented development. While the LDO does not expressly disallow TOD's, the County's code should be revised to include the allowance of TOD's along transit routes. The County should consider revising section 7.2.3 or adding a new overlay district in Chapter 7 that addresses TOD land use elements. The County could also consider revising Chapter 5 to include a new TOD zone district. amending Chapter 6, Use Regulations, and including this land use type in Chapter 12, The White City Urban Unincorporated Community.
(b) Implement a transportation demand management program to meet measurable standards	Comment: The LDO does not contain language relating to a measurable transportation demand management program and should be amended to include such provisions in accordance with revised RTP findings.
(c) Implement a parking plan that reduces parking spaces by 10% in the MPO area, allows for redevelopment of existing parking spaces, sets minimum and maximum parking requirements	Comment: The County has the option to follow the direction of subsection (d), below, instead of implementing a parking plan.
(d) As option to (c) above, revise ordinance requirements for parking to reduce minimum off-street parking requirements for all non-residential uses from 1990 levels; allow provision of on-street, long-term lease, shared parking to meet minimum off-street parking requirements; establish off-street parking maximums in appropriate locations; exempt structured parking and on-street parking from	Off-street parking and loading standards in Chapter 9, General Development Regulations, apply to any new building constructed and any new use established (Section 9.4.1(A)). Parking minimums and maximums are listed in Table 9.4.1, Off-Street Parking Schedule "A." There is a provision for shared parking for developments or uses with different operating hours or different peak business periods (9.4.3(C)). These standards bring the County

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parking maximums; require street-like features in large parking lots; provide for designation of residential parking districts	into compliance with this TPR requirement, as they result in a reduction of off-street parking requirements for non-residential uses from 1990 levels.
	Comment: The County could amend Chapter 9 to include the allowance (conditionally or outright) of alternative methods designed to accommodate parking needs. The County could also consider adding design provisions specifically for large parking lots, such as major employers and industrial uses require. The County could address structured parking in the development requirements, specifically exemptions of such facilities from parking maximums. The County may also want to specify under what circumstances, or in what locations, on-street parking could be used to meet minimum parking requirements.
	Chapter 12 should be amended to clarify that general development regulations found in Chapter 9 also apply to White City.
(e) Require major industrial, institutional, retail, and office developments to provide transit access	ASC 93-2 Transit Oriented Development (7.2.3 Areas of Special Concern) requires that industrial, institutional, retail or office developments generating over 250 trips per day either connect to an existing transit stop or provide a new transit stop site in accordance with RVTD recommendations (Section 7.2.3.(2)(c)).
	Comment: The County may want to consider reducing the number of trips that would trigger this requirement, or eliminate the requirement entirely and give the RVTD more discretion in requiring transit stops.
	This section implies that only employment or institutional uses along existing transit routes will be subject to RVTD recommendations. In order to anticipate future transit routes, the County may want to clarify that these special requirements apply to "existing or planned" routes, or could eliminate this qualifier and require transit amenities from all new employment and institutional developments.
	Chapter 12, The White City Urban Unincorporated Community, specifies that transit stops may be required as part of a land use application (Section 12.8.1(E)). Chapter 12 does not address transit access in this section where street intersections, design and connectivity are covered, nor is it included in Section 12.7, Special Uses in White City Industrial Zones.
	Comment: Chapter 12 should be amended to specify that transit access is required for specific uses.
(6) As part of the pedestrian and bicycle circulation plans, local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas.	Chapter 9, General Development Regulations, includes section on bicycle access (9.5.5) and sidewalks (9.5.6). Provisions in Section 9.5.5 include providing bikeways as part of County road construction to provide intra urban or inter urban bicycle transportation and requiring bicycle pathways in nonresidential uses and multi-family uses. Section 9.5.6 outlines under what conditions sidewalks may be required when a proposed development or land division is within an urban

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	growth boundary or urban unincorporated community.
	Chapter 10, Land Division, specifies that bicycle access will be required for divisions when necessary to provide for intra urban or inter urban bicycle transportation (Section 10.4.3(E)). Section 10.4.3(F) requires sidewalks when a proposed division is within an urban growth boundary or urban unincorporated community and lists the conditions under which they are required outside these areas.
	Comment: A Pedestrian and Bicycle Plan (Section 5.4) is part of the October 2003 Draft Jackson County Transportation System Plan. Included is a list of pedestrian and bicycle improvement projects (Table 5-6). Chapter 9 should be amended to reference Section 5.4 of the Jackson County Transportation System Plan. Chapters 9 and 10 could be amended to reference the intent behind providing a connected network of pedestrian and bicycle facilities, as described in the JCTSP.
	Chapter 12, The White City Urban Unincorporated Community, includes bicycle and pedestrian access standards (12.8.1(H)). This section emphasizes connectivity and references the White City Transportation Connectivity Plan Map, the Comprehensive Bicycle Plan for Jackson County, and the Jackson County Transportation System Plan.
	Comment: It isn't clear from the language in Section 12.8.1(H) that there is a specific list of proposed improvements in the (draft) White City Transportation System Plan. The TPR standard is that local governments need to "identify improvements" in their adopted plans. This section of the LDO should reference the project list in either the County TSP or, if one is being specifically developed for this area, the White City TSP.
(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility.	Comment: The LDO does not currently include or reference the standards for (public) County roads. The Jackson County roadway system plan is included in the October 2003 Jackson County Transportation System Plan. The roadway design standards take into consideration "roadway functional and operational characteristics, including travel volume, capacity, operating speed, and safety (p. 35)." Street cross-sections for the different functional classifications illustrate the required standards (Figures 5-2 - 5-6).
	Chapter 9 and/or Chapter 10 should be revised to include or reference public street standards as illustrated in the JCTSP. Section 12.8.1, Street Standards for White City, should also be similarly revised.
	In 2000, the state published Neighborhood Street Design Guidelines through the Transportation Growth Management program to give local governments guidelines on how to comply with this section of the TPR. The widest street cross-section illustrated in this handbook is an option for a 52-56' right-of-way (28' paved with sidewalks and parking on both sides) local street. By comparison, a similar cross section in the Draft JCTSP (Urban Medium- Volume Local Street B) requires a 60' right-of-way and 32' of paved road. It is possible that the County will be required to revise the LDO and

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	Transportation System Plan to include a reduced pavement local street option.
	If unique street standards are being developed for White City, then Chapter 12 of the LDO should be amended to include roadway design standards and street cross sections illustrating these standards.

# Glossary of Terms and Acronyms

**DLCD** - Department of Land Conservation and Development) An Oregon state agency that administers all land use planning statutes and executive and commission policies that affect land.

**Functional Classification -** Generally, functional classifications are comprehensive plan map designations for roads and/or streets that identify the role the roadway will serve in the road network. Jackson County's functional classification criteria are provided in the Road System Plan section of this document.

# **HMAC** – Hot Mix Asphaltic Concrete

- **LOS** (Level of Service) A concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level of service from A to F, with F being the most congested.
- **MPO** (Metropolitan Planning Organization) An organization which has the responsibility of planning, programming and coordination of federal highway and transit investments within Federally designated metropolitan areas. The Rogue Valley Council of Government (RVCOG) staffs the .Metropolitan Planning Organization.
- **OAR** Oregon Administrative Rule.
- **ODOT** Oregon Department of Transportation
- **RTP** (Regional Transportation Plan) A blueprint to guide transportation investments in the Rogue Valley region. This is the regional transportation plan adopted by the Metropolitan Planning Organization.
- **RVCOG** (Rogue Valley Council of Governments) is a voluntary association of 15 local governments and six other jurisdictions in southwestern Oregon's Jackson and Josephine Counties. RVCOG's job is defined by the charter forming the council and with direction from its board.
- **RVTD** (Rogue Valley Transportation District) Public transportation service district agency providing transit and other associated transportation services to the southern Oregon cities of Ashland, Talent, Phoenix, Medford, White City, Central Point, and Jacksonville and unincorporated areas of Jackson County within the service district.
- **STIP** (Statewide Transportation Improvement Program) The Oregon Department of Transportation's (ODOT) short term capital improvement program, providing project funding and scheduling information for the department and the state's metropolitan planning organizations. It is a four-year program developed through the coordinated efforts of the department, federal and local governments, area commissions on transportation, tribal governments and the public.
- **TPR** (Transportation Planning Rule) A rule adopted by DLCD and ODOT in April 1991 governing transportation planning requirements for all cities and counties in Oregon. This rule implements statewide planning goal 12.

**TSP** - (Transportation System Plan) The long-range plan to guide transportation investments in a city or county. Minimum requirements for a TSP are set forth in the TPR.

UCB - Urban Containment Boundary

**UUCB** – Urban Unincorporated Community Boundary

**UGB** - (Urban Growth Boundary) A local government regulatory measure that delineates a twenty year supply of land for urban growth. Land within the UGB is made available for urban development while land outside the UGB remains primarily rural for farming, forestry, or low-density residential development.

**UUA** - Urban Unincorporated Area

**V/C Ratio** – Relationship between a transportation facility's traffic volume and the capacity of the facility. Calculation of the v/c ratio should be completed in accordance with the most recent edition of the *Highway Capacity Manual* or other comparable method generally accepted by traffic professionals.