



Polk County

**Transportation Systems
Plan**

July 7, 1998

Polk County Transportation Systems Plan

The Polk County Transportation Systems Plan was adopted by the Polk County Board of Commissioners on July 7, 1998.

Polk County Board of Commissioners:

Mike Propes, Chairman

C. Ralph Blanchard

Ron Dodge

Acknowledgments

The following person are acknowledged for their contributions to this document and to the transportation systems planning process in Polk County:

Polk County Board of Commissioners

Mike Propes – Chairman
C. Ralph Blanchard
Ron Dodge

Polk County Planning Commission

Don Duhrkopf - Chairman
Bob Hevener
Jim Knight
Kimberly Marr
Allen Poelz
Tom Ritchey
Wayne Simmons

Transportation Advisory Committee

Mark Bechtel City of Salem
Mike Danko City of Independence
Dan Fricke Oregon Department of Transportation
Bob Hevener Polk County Planning Commission
Twila Hill City of Willamina
Dan Hoynacki VISIT Group
Dave Shea City of Dallas
Gary Wilson City of Monmouth

Mid-Willamette Valley Council of Governments

Wayne Rickert Senior Planner
Sandra Quartier Secretary

Polk County Community Development Department

Gene Clemens Director
Mark Fancey Planning Director
Linda Kolbenschlag Office Specialist
Roberta Seeley Office Specialist

Polk County Public Works Department

Tony Snyder Director
John Graham Road Superintendent
Jim Brink County Engineer
Alice Bibbler Administrative Specialist

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Executive Summary

Introduction

Purpose

The purpose of the Polk County Transportation System Plan (TSP) is to design and implement an integrated multimodal transportation plan that meets the needs of the county residents, as well as those of the region and state. This plan provides a balanced transportation system that includes the automobile, bicycle, rail, transit, air, walking, and transmission systems (for example, pipelines). It reflects existing land use plans, policies and regulations that affect the transportation system and includes a finance element. The TSP also meets the requirements of Oregon Administrative Rule (OAR) Chapter 660-12, which implements Statewide Planning Goal 12. When adopted, this plan fulfills the requirement for public facilities planning required under Oregon Revised Statute (ORS) 197.712(2)(e), Goal 11, and OAR 660, Division 11 as they relate to transportation facilities. Additionally, it becomes the transportation element of the county's Comprehensive Plan.

General

Polk County is a 745 square mile rural area located in the Willamette Valley. Its east border is defined by the Willamette River, and the west border is located along the coastal mountain range. The county's principal industries are agriculture, forest products, and education. The 1996 population estimate is 56,132. The county's two largest employment generators are the Spirit Mountain Casino in Valley Junction, and Western Oregon University in Monmouth.

The county contains six cities: Dallas, Falls City, Independence, Monmouth, and portions of Salem and Willamina. Dallas (11,360) and West Salem (16,340) are the largest cities; although the twin cities of Independence and Monmouth combine for a population of 12,370.

Transportation Systems

The road system in the county is a mixture of state highways, rural county roads, urban city streets, state forest roads, state park roads, and Bureau of Land Management (BLM) roads. The most significant state roads are Oregon Highway Routes 18 and 22. They are Access Oregon Highways (AOH) of statewide significance. Highway 18 traverses the upper northwest corner of the county, while Highway 22 bisects the width of the county generally running east-west, from the state capital in Salem to Lincoln City on the coast. A regional state highway, Highway 99 West, proceeds north-south through Monmouth. A district state highway, Highway 51, proceeds south from Highway 22 to Independence where it then turns west through the cities of

Independence and Monmouth to an intersection with Highway 223, south of Dallas. Highway 223 is a generally north-south route from Benton County through Dallas to a connection with Highway 22. Highway 221 is another district highway and it proceeds generally north from West Salem into Yamhill County.

The county is responsible for just under 500 miles of roads. Of these, slightly under half the miles are paved. The roads are well maintained, although some gravel surface degradation occurs on hilly segments in the dry, summer months when effective grading operations are impractical. Generally, the roads are equally spread throughout the county, with the exception of the sparsely populated and hilly southwest quadrant.

There are another 178 miles of roads located within the cities. With some exceptions, roads within the city limits and urban growth boundaries are under the jurisdiction of the respective city.

The combined forest, parks, and Bureau of Land Management road systems have approximately 517 miles, nearly the same mileage as the city and county jurisdictions.

The county road system contains 145 bridges. Like the roads, they are overall in good condition. A ferry at Buena Vista, with an annual ridership of 1,000 vehicles, operates from April to October, Wednesday through Sunday, and connects to the Marion County road system.

Over the years, the Willamette River has lost its significance as a transportation system, and its use is today is primarily recreational. Although waterborne transportation is not expected to become a major form of multimodal transportation, several private operators are presently exploring opportunities for limited travel along the Willamette River.

The Hampton Railway operates between Willamina and Fort Hill (approximately 5.3 miles). The Willamette and Pacific' Railroad's Westside Branch runs from Monroe in Benton County to Newberg in Yamhill County. Roughly following Highway 99W, this branch intersects with the former Willamette Valley railroad in Independence, and the Dallas branch at Gerlinger (south of Rickreall Road).

The general aviation airport at Independence, a natural gas pipeline along Highway 22, and bicycle, and pedestrian facilities at various locations round out the county's transportation network.

Although the Polk County TSP examines some short-term needs, its primary intent is to study and prepare for the long term (20 years) to ensure a system that will accommodate growth within the existing land management structure. And, to maintain the TSP as a "living document," it will be reviewed at five-year intervals, beginning in 2003.

Relationship to Other Plans

The county's TSP is consistent with the state plans as expressed in the Oregon Transportation Plan, the Oregon Highway Plan, the Oregon Bicycle and Pedestrian Plan, the Oregon Continuous Aviation System Plan, the Willamette Valley Transportation Strategy, and the Highway 18/99W and 22 Interim Corridor Strategies. The cities of Salem, Monmouth, Independence, and Dallas are in varying stages of draft transportation plans for their jurisdictions, and insofar as their development allowed, the county's TSP considered the city plans as well.

Population and Employment

Table 1 shows population projections for Polk County and cities within the county. Overall, the population of Polk County is projected to grow from 56,132 to 101,588 residents between 1996 and 2020. These projections represent a growth of approximately 81 percent for this period, which translates into an average annual growth rate of 2.5 percent. Most of that growth is expected to occur in the West Salem area which is anticipated to more than double in population. Significant growth is also projected for the cities of Dallas, Independence, and Monmouth.

The smallest percentage of the growth is projected for unincorporated portions of the county consistent with the statewide planning goals, state statutes, administrative rules, and the Polk County Comprehensive Plan which are intended to limit growth in rural areas.

The major demographic trend occurring during this period will be a continued increase in the number of elderly persons within the population. This trend, which began during the 1990s, will continue and is attributable both to the aging of the “baby boom” generation as well as the attractiveness of Oregon, and the mid-Willamette Valley, as a retirement destination.

Pursuant to Oregon Revised Statutes (ORS) 195.036, these population projections were developed in coordination with all local governments within the county. Under ORS 195.036, it is the County’s responsibility to establish and maintain these population forecasts. It should be noted, however, that the projected population for Polk County in the year 2020, 101,588 persons, differs significantly from the same projection developed by the Oregon Office of Economic Analysis (OEA) and published in January 1997.¹ The OEA projection for Polk County in 2020 is 78,502 persons, a difference of about 23,000 persons from the projection developed as part of this plan. As part of the coordination process, Polk County has worked with Marion County, the City of Salem, and the Department of Land Conservation and Development to reconcile differences between the OEA forecasts and local projections.

¹ The OEA forecasts through 2003 are based on an econometric model. For the period from 2003 to 2040, the state population forecasts were based on linking Oregon’s population growth to that of the U.S. population. Each county’s “share” of statewide population was then derived using weighted average growth rates. These numbers were then subject to possible revision based on the results of a number of meetings held between OEA staff and local government representatives.

Table 1
Population Projections
Polk County and Cities Within Polk County
1996 - 2020

Location	1996	2000	2005	2010	2015	2020	Percent of Total 1996	Percent of Total 2020	Percent Change 1996-2020	AAGR 1996-2020
Polk County	56,132	63,268	71,153	80,048	90,120	101,588	100%	100%	81%	2.63%
Dallas	11,360	12,278	13,706	15,134	16,562	18,009	20.2%	17.7%	59%	2.00%
Falls City	935	990	1,063	1,142	1,227	1,316	1.7%	1.3%	31%	1.44%
Independence	4,985	6,204	6,850	7,562	8,350	9,559	13.2%	9.4%	92%	2.75%
Monmouth	7,385	8,322	9,661	11,216	13,021	15,117	13.2%	14.9%	105%	3.03%
W. Salem	16,340	20,537	24,180	28,469	33,517	39,464	33.5%	38.8%	142%	3.32%
Willamina (Polk County Portion)	556	611	671	737	810	894	1.0%	0.9%	61%	2.00%
Unincorporated	14,571	14,983	15,515	16,066	16,636	17,226	21.5%	17.0%	18%	0.70%

Sources: Population estimates for 1996 for Dallas, Falls City, Monmouth, Independence, were developed by Portland State University Center for Population Research, 1997.

- Dallas 2000-2020 forecasts developed by Portland State University Center for Population Research, 1996.
- Falls City 2000-2020 forecasts based on an annual average growth rate of 1.44 percent as described in the Falls City Water System Master Plan, 1993.
- Independence 2000-2015 forecasts from the Independence Water System Master Plan, 1997.
- Monmouth 2000-2020 forecasts based on the city's average annual growth rate, from 1956-1996, 3.03 percent.
- West Salem forecasts derived from Salem/Keizer Area Population and Employment Forecasts to 2015, SKATS, 1994. This document includes West Salem forecasts for the years 1993 and 2015. An average annual growth rate of 3.3197 percent, consistent with these forecasts was used to develop the forecasts for 1996-2010. The West Salem area as defined by SKATS also includes some portions of unincorporated Polk County.
- Willamina forecasts include only the portion of the city in Polk County. Census tract data was used to obtain a 1990 population for the Polk County portion of the city. Willamina forecasts for 1996-2015 were derived by applying a 2 percent average annual growth rate as developed by the city in 1997 for periodic review.
- Unincorporated Polk County forecasts are for those areas outside city limits, with the exception of those unincorporated portions of West Salem included in the SKATS area. The 1996-2020 forecasts were developed using 1990 Census data for these portions of the county and applying growth rates for Polk County which are exactly one-half the growth rates used in the *Long-Term Population and Employment Forecasts for Oregon*, developed by Oregon Office of Economic Analysis (OEA), 1997. The OEA growth rates apply to all portions of the county. With most growth occurring in urban areas, it is assumed that rural (unincorporated) growth will occur at a much slower rate.

Over the past year, Marion County has also been involved in a similar coordination process with cities within that county. The draft projections developed by Marion County in conjunction with local cities in that county for the year 2015 shows that the projected population will be approximately 18,000 persons less than the OEA projection.² By contrast, the Polk County projection for 2015 is 90,120, or about 16,000 persons more than the OEA projection. Consequently, when these locally-developed projections are totaled, they differ only slightly (about 2,000 persons) from the OEA projections.

Using this “regional” approach to developing and coordinating these projections makes sense for several reasons. First, Salem lies in each of the two counties and represents the largest urban area in each of the counties. Second, the West Salem area is recognized as the fastest growing sector of the city. It is reasonable to expect therefore, that the OEA projections may have over-represented the population for the Marion County portion of Salem by failing to recognize the growth potential in West Salem, the Polk County portion of the city.

Other differences between the projections developed by Polk County and the OEA projections may also be attributable to the rise of Monmouth and Independence as “bedroom” communities to the Corvallis and Salem urban areas. Affordable housing costs and relatively short commute times to large employment centers, such as Salem and Corvallis, will continue to foster growth in the Monmouth-Independence area and should be included in the OEA population model..

Polk County recognizes that planning is an iterative, dynamic process. While the population projections shown in **Table 1** constitute the county’s obligation under state statute to establish such projections, these figures only represent the best estimates available at this point in time. These numbers are not static, but are subject to change as new information becomes available.

Polk County recognizes its obligation to maintain such forecasts in the future and that this obligation requires ongoing coordination with both state and local governments. Polk County will work with OEA on future forecasts, such as those anticipated in 2000, to ensure that the local factors which affect county population growth are factored into the OEA population modeling process. Polk County will also continue to work with Marion County, the Salem-Keizer Transportation Study (SKATS), and DLCD on a coordinated regional population projection for the Salem urban area. SKATS will be preparing revised population projections for the Salem urban area during the summer of 1998. These revised projections should be incorporated into the TSP as an amendment as soon as they are available.

During the local periodic review process, Polk County will continue to work with local governments within the county to refine these population figures as necessary. As part of this iterative process, the county will work with local governments to identify: (1) more accurate or up-to-date population figures or estimates, (2) local factors which influence population growth, and (3) local policy choices which may influence population growth.

² Marion County will soon be developing and coordinating local projections through the year 2020.

Table 2 shows that covered employment in Polk County grew by more than 51 percent between 1986 and 1996. With the exception of the manufacturing sector, Polk County experienced employment growth in all covered employment sectors during this period. In particular, employment in the service industry more than doubled. The service industry includes a number of activities such as legal, medical, repair, and recreation. The loss of manufacturing employment was marked by declines in the lumber and wood products and food processing industries.

Service sector employment in Polk County increased from 2,708 persons in 1995 to 3,574 persons in 1996. The opening of the Spirit Mountain Casino in Grand Ronde in the fall of 1995 is largely responsible for the dramatic increase in service industry employment. This figure can be expected to increase further as subsequent expansions have increased the number of employees at the Casino to more than 1,200. The Casino is now the largest employer in Polk County.

Table 2
Covered Employment¹
Polk County
1986 and 1996

Sector	1986		1996		Percent Change 1986-1996
	Total	Percent	Total	Percent	
Services	1,146	12.3%	3,574	25.4%	+211.9%
Manufacturing	2,915	31.4%	2,829	20.1%	-3.0%
Government	1,979	21.3%	2,594	18.4%	+31.1%
Retail Trade	1,492	16.1%	2,361	16.8%	+58.2%
Agriculture/Forestry/Fishing	494	5.3%	971	6.9%	+96.6%
Construction	428	4.6%	700	5.0%	+63.6%
Wholesale Trade	215	2.3%	443	3.1%	+106%
Trans./Comm./Utilities	237	2.6%	312	2.2%	+31.6%
Finan./Insur./Real Estate	381	4.1%	241	1.7%	N/A ²
Mining	N/A	N/A	30	0.2%	----
Non-Classified	0	0.0%	37	0.3%	----
Total Covered Employment	9,287	100%	14,092	100%	+51.7%
Unemployment		6.3%		4.8%	-1.5%

Source: 1998 Regional Economic Profile - Region 3, State of Oregon Employment Division, October 1997

¹ Includes only workers covered by unemployment compensation.

² Data not comparable due to a non-economic related code change.

Table 3 shows employment projections for the Marion, Polk, and Yamhill counties, for 1996 through 2006. Most new jobs will continue to be created in the services industry. The Oregon

Employment Division anticipates that most of these new service-oriented jobs will most likely be in business and professional services, which includes temporary employment agencies and services for commercial customers.³ Health care employment is also expected to continue to grow to meet the needs of an aging population. Retail trade is also expected to grow significantly during this period.

Table 3
Projected Employment by Industry¹
Marion, Polk, and Yamhill Counties²
1996 and 2006

Sector	1996		2006		Percent Change 1996-2006
	Total	Percent	Total	Percent	
Services	35,720	23.3%	48,670	26.3%	+36.3%
Government	39,250	25.6%	44,160	23.9%	+12.5%
Retail Trade	28,720	18.8%	34,960	18.9%	+21.7%
Manufacturing	24,570	16.1%	27,060	14.6%	+10.1%
Construction	8,400	5.5%	10,500	5.7%	+25.0%
Finan./Insur./Real Estate	6,950	4.5%	7,900	4.3%	+13.7%
Wholesale Trade	4,700	3.1%	5,940	3.2%	+26.4%
Trans./Comm./Utilities	4,350	2.8%	5,100	2.7%	+17.2%
Mining	370	0.3%	420	0.4%	+13.5%
Total Nonfarm Employment ³	153,030	100%	184,710	100%	+20.7%

Source: 1998 Regional Economic Profile - Region 3, State of Oregon Employment Division, October 1997

¹ Includes only workers covered by unemployment compensation.

² Employment projections for Polk County are not available.

³ Projected employment for agriculture, forestry, and fishing not available.

These population and employment trends present several implications for transportation planning in Polk County. With increased population growth projected to occur in the larger cities in the county, it is important for the county's transportation to be well coordinated with those of the cities, particularly as it relates to areas within the urban-rural interface.

Consistency between functional classifications and road capacity in these areas is critical to efficient and safe service. City/county coordination regarding planned improvements in these areas is also necessary. At the first available opportunity to update this Plan, the county and cities will perform Level of Service (LOS) calculations for arterials and major collectors in and

³ State of Oregon Employment Division, 1998 Regional Economic Profile - Region 3, October 1997, page 28.

around urban growth boundaries to identify: (1) the nature and extent of system deficiencies and (2) possible system improvements. At a county-wide level it is difficult to assess the impacts of growth on the transportation system. These calculations will also allow both the County and local cities to assess the impacts of future growth, based on current zoning and potential development, on the transportation system and identify mitigation measures necessary to maintain an acceptable level of service as projected development occurs.

With the development of the Spirit Mountain Casino as a regional destination and major employer within Polk County, further planning is needed to identify design and access improvements along State Highway 18 in the Grand Ronde area. The County is currently participating in the ODOT-sponsored Corridor Refinement Plan process for Highway 18. The project is intended to identify design improvements along the highway and address local access and circulation needs.

Increased employment opportunities in urban areas of the County will result in greater numbers of commuters, particularly during peak hours. Coordination between Polk County, the state, and local cities is also critical to ensuring that adequate levels of service are available along major commuting routes within the county. As job growth continues, some form of limited public transit, serving major employment centers such as Salem and Dallas, may become feasible.

The general “aging” of the population that will continue to occur into the next century will most likely result in an increased demand for paratransit and public transit services for elderly residents. Coupled with the likely increases in commuter traffic, this additional demand for transit service could also contribute to the development of a local transit system.

Transportation Goals and Policies

As the cost of providing new and expanded transportation infrastructure steadily increases and the growing population puts more demands on the existing transportation system, the county continues to reassess its reliance on the automobile as the primary mode of transportation. It is expected that while private automobile travel will continue to be the only feasible way for many citizens to travel in the next twenty years, provisions will be made for those who are not able to operate motor vehicles, for those who choose not to do so, and to reduce the need for new or reconstructed transportation facilities. The following goals and policies are intended to further these aims, and to address the issues (**Appendix G**) raised by Polk County citizens during open houses and various individual and group meetings.

Goal 1 **To provide a convenient, economic, energy efficient, reliable, and safe multimodal (road, rail, air, public transportation, waterway, bicycle, pedestrian and pipeline) transportation systems for all users; including the young, elderly, disabled, and the disadvantaged.**

Policy 1-1 Polk County will consider the road network as an important and valuable component of the transportation system.

Policy 1-2 Polk County will cooperate with the cities of Independence and Monmouth in preventing the construction of structures which intrude into the airspace necessary for the safe operation of aircraft using the Independence State Airport and in preventing uses of the land in the vicinity of the airport which would conflict with noise generated by the aircraft.

Policy 1-3 Polk County will discourage direct access from adjacent properties onto those highways designated as arterials whenever alternative access can be made available.

Policy 1-4 Polk County will ensure that roads, bikeways, and pedestrian facilities for which it has maintenance responsibility are kept in serviceable conditions. Maintenance and improvements for safety related problems shall have the highest priority provided they are economically feasible and cost effective.

Policy 1-5 Polk County shall discourage adding mileage to the system until the following criteria are satisfied:

- a. The condition of the road proposed for acceptance into the system meets the county road standards, or

- b. An overall increase in efficiency in the county road network can be demonstrated.

- Policy 1-6** Polk County shall explore options to reduce road mileage under the county's jurisdiction by working with the cities in Polk County to transfer the jurisdiction of county roads for maintenance and improvement when urbanization occurs. This will occur when the road functions as a city street and/or when the urban type development makes it apparent that city forces are better equipped to do the work.
- Policy 1-7** Polk County will strive to maintain a Level of Service (LOS) A on all county arterials and collectors, and will initiate corrective action to prevent degradation below LOS C. LOS C is a range of stable flow, but with delays at signalized or stop sign controlled intersections. It is the beginning of the range of flow in which the operation of individual users become significantly affected by the presence of others. The general level of comfort and convenience declines noticeably at this level which is roughly equivalent to a 5,300 - 7,900 ADT.
- Policy 1-8** Polk County does not currently designate any hazardous material routes. The county will periodically review the need for designating routing.
- Policy 1-9** Polk County does not currently designate any truck routes; however, any load limited bridges or road may prevent trucks from using some routes from time to time. The county will periodically review the need for designating routings.
- Policy 1-10** Polk County will evaluate the need for Park and Ride facilities when realigning County roadways and before disposing of resulting surplus right-of-way.
- Policy 1-11** Polk County will work with private companies and public agencies to establish an economically feasible public transportation system appropriate to the needs of its citizens, including the disadvantaged and disabled.
- Policy 1-12** Polk County will use every practical opportunity to enhance the intermodal connectivity of its transportation system.
- Policy 1-13** All county bicycle facilities shall be constructed in accordance with county bicycle standards.
- Policy 1-14** Support activities that maintain adequate utility services (electricity, communications, natural gas, etc) into, within, and through Polk County.

- Goal 2** **To maintain an ongoing transportation planning process keyed to meet the needs of the traveling public and coordinated among the state, regional, and local jurisdictions.**
- Policy 2-1** Polk County will continue to coordinate transportation planning with and consider the needs of its cities, other counties, the region, and the state. The county will support the transportation planning efforts of all its municipalities.
- Policy 2-2** Polk County will notify ODOT of all proposals requiring access to a state highway, and any land use change or development within 500 feet of a state highway or 5,000 feet of a visual public use airport (10,000 feet at an instrument airport).
- Policy 2-3** Polk County will continue to participate in and support state and regional transportation planning efforts.
- Policy 2-4** Polk County recognizes the function of Highway 18 and 22 as being critically important to a wide range of statewide, regional, and local users, and that these highways serve as the primary route linking the mid-Willamette Valley to the Oregon Coast, with links to Lincoln City and Tillamook.
- Policy 2-5** Polk County recognizes the benefit of Highway 99W as a critically important north-south route linking areas within the mid-Willamette Valley. Highway 99W also serves as an emergency alternative to and reliever for Interstate 5. The county supports a continuing effort to enhance and maintain the capability of Highway 99W.
- Policy 2-6** Polk County will support the development of and provision for public education opportunities and informational material to increase awareness of transportation options available in the county.
- Policy 2-7** Polk County will promote and encourage carpooling.
- Policy 2-8** To ensure effective management of the state and local transportation system, it is the policy of Polk County that a traffic coordination meeting shall be held with the Oregon Department of Transportation a minimum of two weeks in advance of any major event scheduled to be held at the Polk County Fairgrounds. A major event is defined to be any event that has a potential to generate more than 600 vehicle trips in any single hour of the event's operation or 50 percent of peak hour traffic (whichever is higher). The ODOT contact for this Events Management Policy shall be the ODOT District 3 Manager. The outcome of the traffic coordination meeting shall be agreement about traffic management measure and measure implementation responsibilities. These measures include, but are not limited to, increased traffic enforcement, advance notice, and other public information efforts.
- Policy 2-9** Polk County will provide ODOT notification to ensure that ODOT is involved as

early as possible in the assessment of any redevelopment or new development proposal within the Rickreall community with a trip generation potential that significantly exceeds the trip generation assumptions for the Rickreall community adopted into the Polk County TSP as part of the Rickreall Junction Facility Plan. The ODOT contact for any such development shall be the ODOT Area 3 Planner.

Goal 3 To maintain a transportation system supportive of a sustained, geographically distributed and diversified economy.

Policy 3-1 Polk County will encourage rural residential, commercial and industrial development where such development has access to more than one mode of transportation.

Policy 3-2 Polk County recognizes the importance of resource-related uses, such as agriculture and forestry to the local economy, and the need to maintain a transportation system that provides opportunities for the harvesting and marketing of agricultural and forest products.

Policy 3-3 Polk County will resist the abandonment of active railroad lines which contribute to the economic viability of the county.

Policy 3-4 Polk County supports the spot dredging of the Willamette River along the county's border to maintain the river's capability for water borne transportation and recreation.

Policy 3-5 Polk County encourages and supports the improvement of rail conditions to maintain rail service as an effective mover of goods. Concurrently, the county supports safety improvements at rail crossings.

Policy 3-6 Polk County supports continued use of ODOT Highway Funds to help support the Buena Vista Ferry service and for ferry related improvements.

Goal 4 To implement a level of transportation development which positively contributes to Polk County's livability.

Policy 4-1 Polk County will require setbacks from the public right-of-way of principal arterials (such as Highway No. 22 and 99W) for commercial and industrial uses along such facilities.

Policy 4-2 Polk County will review right-of-way acquisitions for transmission lines and pipelines, so as to minimize adverse impacts on the community and, where appropriate, require that the proposed facilities shall:

- Minimize adverse impacts on land owners by paralleling property boundaries whenever possible;
- Utilize or parallel existing utility, rail or highway rights-of-way;
- Recognize impact on crops and field drain tile installation;
- Recognize and respect accepted farming practices in the affected areas for preservation and replacement of topsoil and to minimize erosion potential;
- Minimize the creation of unusable parcels;
- Consider utilization of parts of rights-of-way for multiple uses where conditions warrant and conflicts would not be created with adjacent land use; and
- Consider visual impacts and potential environmental damage.

Policy 4-3 To prevent exceeding planned capacity of the transportation system, Polk County will consider road function, classification, and capacity as criteria for comprehensive plan map and zoning amendments/changes.

Policy 4-4 Polk County will strive to take advantage of technologic advances to improve the transportation system.

Policy 4-5 Aesthetics will be considered when new construction or reconstruction is accomplished on the road network; however, safety needs will not be compromised.

Policy 4-6 Polk County supports the Salem-Keizer Metropolitan Planning Organization's continued allocation of Federal Surface Transportation Funds to implement the Regional (aka City of Salem) Rideshare Program.

Policy 4-7 Polk County recognizes that properties contiguous to the Highway 99W / Highway 22 interchange, located in the Exclusive Farm Use Zone, are specifically identified as a “separator” or “buffer” between the highway interchange and the community of Rickreall. These properties will remain in an Exclusive Farm Use Zone, subject to overlay zone provisions to ensure that land uses in the vicinity of the Rickreall Interchange will not contribute to the interchange exceeding the mobility standards of the Oregon Highway Plan.

In addition to the goals and policies above, the county has policies on maintenance, capital projects, financing, equipment purchasing, financial reporting, and problem notification. The

County also has road design and construction standards. These policies and standards are specific guidelines for the Public Works Department, and are contained in their documents.

The County's Subdivision and Partition Ordinance is codified as Chapter 21 of the Polk County Code and is used by both the Public Works and Community Development departments.

Regulatory Framework and Relationship to Other Plans

Summaries of Relevant Plans and Regulations

Federal

There were two significant actions, one federal and one state, which occurred relatively close together which prompted a major transportation planning effort within Oregon. The federal action, the "Intermodal Surface Transportation Efficiency Act" (ISTEA) provided transportation funding for six years beginning in 1991. Furthermore, ISTEA required each state to have a statewide planning process and develop a transportation plan and program. Additionally, each state was required to develop, establish, and implement management systems to address safety, congestion, public and intermodal transportation. Oregon implemented many of these federal provisions by adopting the Oregon Transportation Plan on September 15, 1992.

State

The "Oregon Transportation Plan" (OTP) notes that Oregon's population growth is expected to outpace the rest of the nation, and most of the state's growth is projected in the Willamette Valley. Goals of the OTP stress that people should have transportation choices in urban areas which are reliable and accessible to all potential users. It further states that statewide transportation corridors must provide access to all areas of the state, nation, and world. The plan's chosen method to reach the state's aims is called the "Livability Approach." This approach calls for:

- Intercity bus or commuter bus service to cities of over 2,500 populations,
- Urban Transit service available in communities over 25,000 population,
- Additional major highway freight corridors on non-Access Oregon Highways, and
- Establishment of a Willamette Valley Transportation System Coordination Area.

The OTP is augmented by several transportation type specific plans known as modal elements. One modal element of the OTP is the Oregon Highway Plan. It contains criteria and standards applicable to the various levels of state highways.

The Oregon Highway Plan explains its relationship to other plans, and states that the Oregon Transportation Commission's (OTC) goal is not to impose this plan on local governments, but where possible, to seek consensus with local governments. The Highway Plan contains policy statements such as:

- The primary function of highways of statewide importance (e.g., Highways 18 and 22) is to provide connections and links to larger urban areas, ports and major recreation areas that are not directly served by the interstate system;
- The primary function of regional highways (e.g., Highway 99W) is to provide connections and links to areas within regions of the state, between small urbanized area and larger population centers. A secondary function is to serve land uses in the vicinity of these highways; and,
- The primary function of district highways (e.g., Highways 51, 221, 223) is to serve local traffic and land access. These roads often served a higher function in the past but now serve a similar function to county roads and city streets.

In the rural areas, highways of statewide significance are expected to function at Level of Service (LOS) B, while regional and district highways aim for LOS C. The plan also contains standards for locating accesses on state highways.

The significant state action, which combined with ISTEA, put transportation planning into neighborhoods across the state was the "Oregon Administrative Rule 660, Division 12," adopted in April 1991. Commonly known as the Transportation Planning Rule (TPR), it implements Statewide Planning Goal 12 and identifies transportation facilities, services, and improvements which may be permitted on rural lands consistent with statewide planning goals. The TPR also requires coordination of all aspects of transportation plans and prescribes certain predetermined outcomes such as reduction of automobile use.

Although the TPR is wholly applicable to the Polk County TSP, certain portions were found to play key roles in developing the TSP and its conclusions. Some of these are:

- Section 660-12-020 which requires a coordinated network of transportation facilities adequate to serve state, regional, and local transportation needs.
- A determination of transportation needs as provided in Section 660-12-030; and a road plan for a system of arterials and collectors.
- Use of analyses of state and regional transportation needs in preparing local TSPs, and also the need to support movement of goods and services to support industrial and commercial development in accordance with Goal 9 (Economic Development).
- Within urban growth boundaries (UGB), determination of regional and local needs shall be based on 20-year "population and employment forecasts..." and "to encourage urban development on urban lands prior to conversion of urbanizable lands" (Goal 14).
- Section 660-12-035 which contains requirements for evaluating and selecting transportation alternatives including: improvements to existing facilities, new facilities, system and demand management measures, and the no-build system alternative required

by the National Environmental Policy Act of 1969.

- Additional requirements support urban and rural developments by providing facilities and services to support the land uses shown in the comprehensive plan.
- The transportation system developed shall "minimize conflicts and facilitate connections between modes of transportation." Furthermore, the system must consider issues such as air, water, energy, etc.
- Five-year interim benchmarks to evaluate the plan's progress.
- The construction of new roads outside the UGB are influenced by provisions of OAR 660-12-065, *Transportation Improvements on Rural Lands*. This section identifies the transportation work consistent with Goal 3 (Agricultural Lands), Goal 4 (Forest Lands), Goal 11 (Public Facilities and Service), and Goal 14 (Urbanization). New transportation facilities in rural areas may require a goal exception.

Another modal plan is the "Oregon Bicycle and Pedestrian Plan." This document guides entities in developing bikeways and walkways to fulfill the TPR requirements, and provide standards for planning, designing and maintaining bikeways and walkways. This modal plan considers bike and walkway issues along public right-of-way while recreational bicycling and walking issues are addressed in the "Oregon Recreational Trails Plan." The Bike Plan, as the document is generally known, expresses the belief that implementing a network of bikeways and walkways will support the OTP's objective of doubling the number of bicycling and walking trips over the next 20 years. Current guidance is to incorporate bike and pedestrian plans into the local TSP so that these modes of transportation are not considered in isolation or ignored. Some of the key standards contained in the plan are:

- Bike lanes are generally not recommended on rural highways with posted speeds of 90 km/h (55 mph),
- The standard width of a bike lane is 1.8 m (6 ft), with a minimum width of 1.2 m (4 ft) on open shoulders and 1.5 m (5 ft) from the face of a curb, guardrail, or parked cars.

Another state modal plan is the newly developed "Oregon Public Transportation Plan." Like the Bike Plan, it is a 20-year guide in support of the OTP. Goals expressed in the plan are: a desire to provide mobility alternatives to the single-occupancy vehicle, and to have a statewide system appropriate to population and densities. This plan outlines a three-step process for implementing a public transportation system. This process considers limited funding by phasing in the implementation. But the final outcome in small communities and rural areas are to: continue reliance on dial-a-ride programs with emphasis on the elderly and disabled passenger, and to evolve into a traditional fixed route system. Expanded intercity connections are also desired. While many of the requirements are for cities, there are rural requirements to: provide an accessible service to anyone requesting service, provide a coordinated centralized scheduling system in each county, provide phone service to the scheduling system 40 hours weekly from Monday through Friday, and respond to service requests within 24 hours.

Other state modal plans are the "Oregon Rail Passenger Policy and Plan," and the "Oregon Rail Freight Plan."

Regional

The Willamette Valley Transportation Strategy adopted in 1995 as an element of the Highway Plan contains three options for transportation development. The options elaborate on the OTP's Livability Alternative. The plan recommends the "moderate" option. Some aspects of this option most likely to affect Polk County include goals to:

- perpetuate the plan's advisory group,
- aggressively implement demand management programs,
- identify new funding methods,
- evaluate pricing mechanisms to reduce congestion, and
- expand transit.

Corridors

There are two Oregon Transportation Commission endorsed Interim Corridor Strategies directly affecting Polk County. One is for the Portland to Lincoln City corridor (Oregon Highways 99W and 18), and the other is for the Willamina to Salem corridor (Oregon Highway 22). These strategies identify transportation goals and management objectives for the applicable corridors. The strategies are the first of three planning phases, with the second phase being the general/system plan, and the third, if needed, consisting of refinement plans.

ODOT expects to begin the general plan for both corridors in 1998. The general plan will make provisions for many of the improvements which can be expected along the corridor, while the Refinement Plans will explain very detailed solutions of specific locations.

The portion of the Oregon Highway 99W/18 Interim Strategy which most affects Polk County is the length from Highway 18's intersection with Highway 22 to the eastern boundary of the H. B. Van Duzer corridor. This segment carries the most amount of traffic, exceeding an estimated average daily traffic (ADT) of 17,000 (1996). The strategy notes that traffic volumes are highest on Sundays during the summer. This area also has a high number of accidents, and ranks in the upper 10 percent on the state's Safety Priority Index System (SPIS). The strategy suggests widening to four lanes through this segment. Passing, turning, and truck climbing lanes are also to be considered, as well as improvements to the local street system, an access management plan, and an evaluation of the need for grade-separated interchange near Valley Junction. To facilitate strategy implementation, ODOT has sponsored a corridor refinement plan for the area which will improve the effectiveness and safety of the local and regional transportation services.

The Corridor Refinement Plan work began in February, 1998 and is expected to be completed by May 1999. Adoption by Polk County is scheduled for this time. Also underway in this area is the DLCDD-sponsored Regional Problem Solving effort examining all aspects of growth in and near the corridor.

The westernmost segment of the Oregon Highway 22 Interim Corridor Strategy is measured from the highway's intersection with Highway 18 to its intersection with Highway 51. This segment covers over 20 miles. The busiest portion of the segment carried an average of nearly 26,000 vehicles per day during 1996. The SPIS identified numerous locations ranked in the top 10 percent. Over the next 20 years, this portion of the highway is expected to have an ADT increase to slightly over 36,000. Strategy recommendations in this segment include: exploration of park and ride lots at major highway intersections, examination of demand factors and opportunities for bus service along the corridor, targeting safety improvements to high accident locations, and analysis of alternatives to reduce accident risks at the intersections with regional and district highways. It should be noted that since the strategy was completed, many improvements to the western segment have been completed.

Although the western segment was emphasized, a portion of the eastern segment, from Highway 51 to the Willamette River bridges, has an even larger amount of traffic and is heavily impacted by commuting traffic from West Salem. High accident counts have caused this area to be designated as a safety corridor. An ODOT-sponsored corridor refinement plan has been suggested for this area, but is not anticipated until the 1999-2001 biennium.

The county supports the state's efforts to accomplish these corridor plans, and equally supports the inclusion of their recommendations into the state Transportation Improvement Program (STIP).

Two other important corridor-related studies are currently in progress. One is the Willamette River Crossing Capacity Major Investment Study which is a long term look at the need for a future river crossing. The second is the Bridgehead Engineering Study which is a short to mid-term look at improvements to the existing bridge crossing capability.

County

The Polk County Comprehensive Plan, updated in 1996, contains goals and policies relating to the state's goals, including transportation. The goals and policies serve as a base for the goals and policies contained in the earlier portions of this document. The Comprehensive Plan Map (**Figure 1**) shows the broad land use designations within the county. The Comprehensive Plan designations are implemented through the county's Zoning Ordinance and Zoning Map (**Figure 2**). **Table 4** shows the number of acres, by zone, for lands within Polk County.

Table 4
Number of Acres by Zoning Designation
Polk County

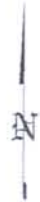
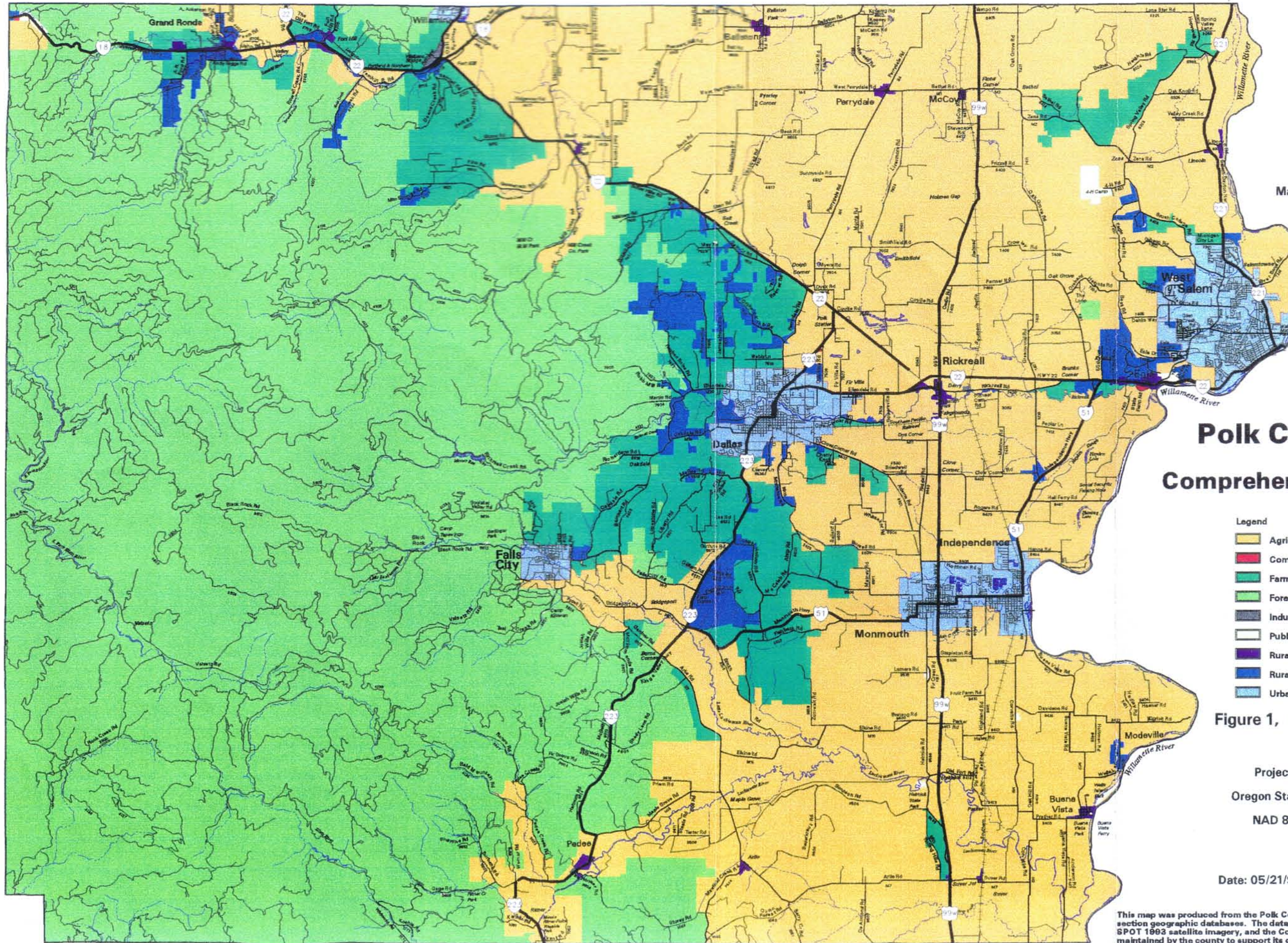
Zoning Designation	No. of Acres
Acreage Residential (AR-5)	9,426
Commercial General (CG)	177
Commercial Office (CO)	22
Commercial Retail (CR)	78
Exclusive Farm Use (EFU)	184,562
Farm Forest (FF)	28,832
Farm Forest Overlay (FFO)	8,192
Heavy Industrial (IH)	312
Industrial Commercial (IC)	6
Industrial Park (IP)	285
Light Industrial (IL)	167
Mineral Extraction (ME)	527
Public (PA,PC,PE,PF,PP,PS)	3,572
Suburban Residential (SR)	4,641
Timber Conservation (TC)	226,472

Source: Polk County Land Information Service, 1997

The Polk County Zoning Ordinance, updated in 1997, provides for uses and development standards for commercial, industrial, residential, and resource (farm and forest) zones throughout the unincorporated portions of the county. Consistent with Oregon Revised Statutes, Chapter 215 and OAR 660, Division 6 and Division 33, the Zoning Ordinance allows transportation and utility facility improvements as either permitted or conditional uses in farm and forest zones within the county. The last portion of this section shows the types of facilities and improvements which are permitted outright or permitted conditionally in these zones.

Other transportation improvements beyond those listed may be permitted as conditional uses, subject to the county taking an "exception" (see ORS 197.732) to any applicable statewide planning goals. The zoning ordinance also contains provisions relating to transportation issues such as vision clearances, street widths, parking requirements, and road work.

Figure 1
Comprehensive Plan Map



Map Scale 1 Inch = 2.5 Miles

Polk County Comprehensive Plan

Legend

- Agriculture
- Commercial
- Farm Forest
- Forest
- Industrial
- Public
- Rural Community
- Rural Land
- Urban Reserve

Figure 1, Page 25

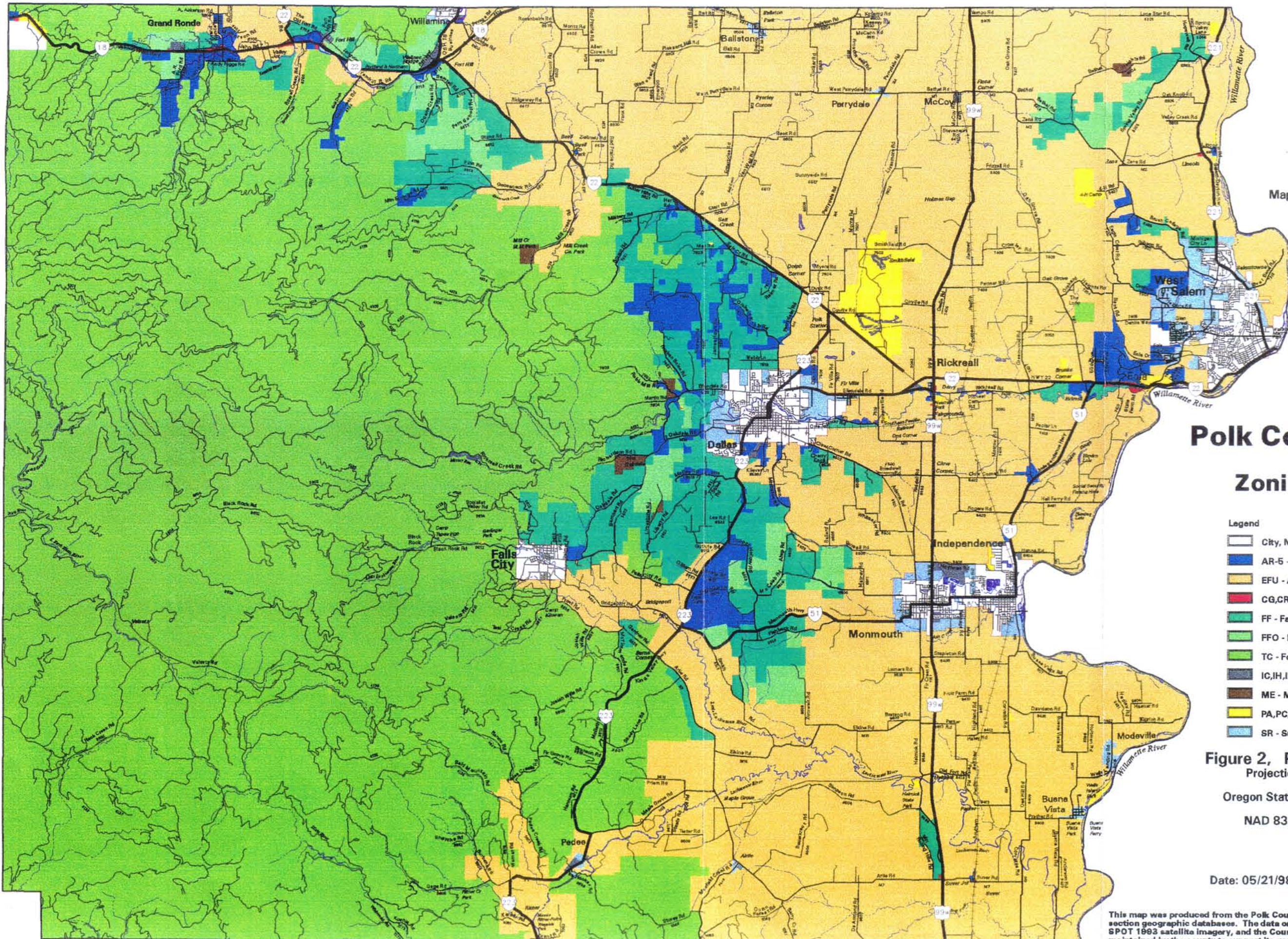
Projection:
Oregon State Plane
NAD 83/91

Date: 05/21/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Figure 2
Zoning Map



Map Scale 1 Inch = 2.5 Miles

Polk County Zoning

- Legend**
- City, No County Zoning
 - AR-5 - Acreage Residential
 - EFU - Agriculture
 - CG,CR,CO - Commercial
 - FF - Farm Forest
 - FFO - Farm Forest Overlay
 - TC - Forest
 - IC,IH,IL,IP - Industrial
 - ME - Mineral Extraction
 - PA,PC,PE,PF,PP - Public
 - SR - Suburban Residential

Figure 2, Page 27
Projection:

Oregon State Plane
NAD 83/91

Date: 05/21/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

The county's Subdivision and Partition Ordinance contains requirements for right-of-way and paved width of subdivision streets. These widths are:

	Right-of-Way Urban/Rural	Developed Roadway (including sidewalk/shoulder) Urban/Rural
Major Arterial	84ft./NA	70ft./NA
Minor Arterial	68ft./60ft.	44ft./44ft.
Major Collector	68ft./60ft.	44ft./36ft.
Minor Collector	64ft./60ft.	44ft./30ft.
Minor (local) Streets	60ft./60ft.	44ft./22ft.
Cul-de-Sac	60ft./60ft.	34ft./22ft.

Amendment of the ordinance is necessary to be consistent with Road Standards presently under development. This amendment is part of the follow-on actions.

Cities

The Monmouth Transportation System Plan was adopted in October, 1997. While the functional classification of the city's road system was being developed, the functional classification of the county's road system was also considered to make determinations of the proper classifications. The streets especially considered were Riddell Road/Monmouth Avenue, Mistletoe Road/Church Street and Helmick Road/Warren Street. All of these are designated collectors. Additionally, Hoffman Road's functional classification was changed to minor arterial consistent with current and projected uses by both Monmouth and Independence.

The bicycle routes contained in the Monmouth TSP connect to the county's system at Riddell Road in the UGB and to Hoffman Road. Completion of county projects on Hoffman Road will implement the route connection to Monmouth and Independence. The extension of Madrona Street east to Talmadge Road is also included in the city's plan. The extensions provide an alternative route to Highway 51 and improves bicycle and pedestrian opportunities.

The Independence TSP is scheduled for adoption by June 1998. In addition to the items mentioned above, one important aspect of the Independence plan is to realign 16th Street and Talmadge Road and continue a 16th Street extension to Hoffman Road. The realignments will significantly improve access to Central High School and Talmadge Middle School. The work will also reduce peak hour congestion on Highway 51.

The Independence TSP also identifies several road extensions in the southern portion of the urban area, including an extension of 7th Street to the southern UGB followed by a second extension to the east to connect to Corvallis Road. This improvement is planned for the sometime in the next five years. An extension from Spruce Street to Talmadge Road is also planned. This extension would include approximately 4,290 feet outside the current UGB in Polk County. This improvement is planned for sometime in the next 10 to 20 years. These extensions are intended to promote cross-town travel to the Independence Bridge. Polk County

will need to coordinate with the City further on these improvements. This coordination may also include the development and adoption of any necessary Goal 3 (Agricultural Lands) and Goal 14 (Urbanization) exception findings in order to justify any extension of an urban facility outside of the adopted UGB.

The Willamina TSP, adopted in November 1997, does not have any significant items affecting the Polk County TSP except for the desire to work with the county to enhance and promote intermodal connectivity. Specifically, the Willamina plan supports a bikeway connecting to the Polk County system and a future inter-county public transit system. To further bikeway connectivity, the Willamina TSP calls for a shoulder widening along Business 18 from Willamina to Sheridan.

Falls City, with a population well under 2,500, is eligible for an exemption from the TSP requirement.

The transportation element of the City of Dallas' Comprehensive Plan calls for construction of an arterial, generally along the city's northern boundary. The county's TSP calls for development of a collector generally along Webb Lane. It is anticipated that discussions between the county and the city will result in a single road serving both needs.

Functional classifications in the county's TSP and Dallas' plan were reviewed for consistency. The classification of Oakdale Road was changed to a collector in the UGB segment. It is now consistent with the city's designation. The county's bike route connects to the city's system at Orr's Corner/Miller Avenue and West Ellendale Roads.

The City of Salem also recently completed a TSP. It is due for adoption in June 1998. This plan addresses not only the items required for a city, but also requirements applicable to a metropolitan planning area. As with the other cities, the functional classifications of county roads penetrating the urban growth boundary were aligned with city designations.

Some key aspects of Salem's plan are the long-range projects which affect Polk County's roads. One of these projects calls for a series of collector streets feeding into Eola Drive to improve West Salem's access to Highway 22. There are realignments of Doaks Ferry Road in West Salem between Orchard Heights Road NW and Glen Creek Road NW. The plan also calls for grade-separated interchanges at the intersection of Highway 22 and Doaks Ferry Road NW. The work on Highway 22 will be further studied under the auspices of ODOT's Corridor Planning Program.

The city's highest priority is to solve capacity and circulation problems on Wallace Road. The *Wallace Road Local Access & Circulation Study*, scheduled for adoption as part of the Salem TSP, identifies a new collector street from Orchard Heights Road north to Brush College Road to be constructed east of Wallace Road. The road would follow the UGB and Willamette River floodplain and is intended to serve as an access and circulation collector for the land to be developed east of Wallace Road. Several portions of this planned roadway extend outside the current UGB onto land zoned Exclusive Farm Use (EFU). Prior to construction of this collector street, Polk County and the City of Salem will need to develop and adopt the necessary Goal 3 (Agricultural Lands) and Goal 14 (Urbanization) exception findings in order to justify locating

an urban facility on agricultural lands.

Some other aspects of the Salem TSP which may affect Polk County, at least peripherally, are: Salem using the lower end of the LOS D range as criteria to implement upgrades of portions of Doaks Ferry Road NW to urban standards. Bicycle projects on Doaks Ferry Road are planned for 1998, along with additional bicycle projects on Doaks Ferry and Brush College Road in future years.

Transportation Permit Requirements

The following outlines the methods to accomplish transportation projects which may or may not be specified in this document. Certain types of projects are permitted outright without need for obtaining a conditional use permit, except as noted. These are:

1. Operation, maintenance, and repair of existing transportation facilities (OAR 660-12-045(1)(a)(A));
2. Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with clear, objective dimensional standards (OAR 660-12-045(1)(a)(B));
3. Changes in the frequency of transit, rail, and airport services (OAR 660-12-045(1)(a)(C));
4. In the Exclusive Farm Use (EFU) Zoning District, Farm Forest (FF) Zoning District, and Timber Conservation (TC) Zoning District, reconstruction or modification of roads and highways, including the placement of utility facilities overhead and in the subsurface of public roads and highways along the public right-of-way, but not including the addition of travel lanes, removal or displacement of buildings, or creation of new land parcels. (ORS 215.283(1), OAR 660-06-025 (3)(h), and the Polk County Zoning Ordinance);
5. In the EFU, FF, and TC zones, construction of climbing and passing lanes within right-of-way existing on July 1, 1987 (ORS 215.283(1) (k), OAR 660-06-025 (3)(h), and the Polk County Zoning Ordinance);
6. In the EFU, FF, and TC zones, improvement of existing road and highway related facilities such as maintenance yards, weigh stations, stockpile sites within rights-of-way existing as of July 1, 1987 (ORS 215.283(1)(n), OAR 660-06-025 (3)(h), and the Polk County Zoning Ordinance);
7. In the EFU, FF, and TC zones, temporary public road and highway detours that will be abandoned or restored to original condition when no longer needed (ORS 215.283(1)(m), OAR 660-06-025 (3)(h), and the Polk County Zoning Ordinance);
8. Transportation system management measures, including medians which limit or prevent turning movements, but not including the creation of travel lanes or median turn lanes;

9. In the EFU, FF, and TC zones, channelization not otherwise allowed under ORS 215.283 and OAR 660, Division 6 (OAR 660-12-065(3)(c));
10. Replacement of an intersection with an interchange (OAR 660-2-065(3)(e)). Note: in the EFU, FF, and TC zones this use requires a conditional use permit (ORS 215.283 (3) and OAR 660-12-065 (5));
11. Continuous median turn lane (OAR 660-2-065(3)(f)). Note: In the EFU, FF, and TC zones this use requires a conditional use permit (ORS 215.283 (3) and OAR 660-12-065 (5));
12. Roads and bridges on farm or forest lands for the purpose of managing their uses;
13. Replacement of an intersection with an interchange (OAR 660-12-065(3)(e)). Note: In the EFU, FF, and TC zones this use requires a conditional use permit (ORS 215.283 (3) and OAR 660-12-065 (5));
14. New access roads and collectors within a built or committed exception area, or in other areas where the function of the road is to reduce local access to or local traffic on a state highway. These roads shall be limited to two travel lanes. Private access and intersections shall be limited to rural needs or to provide adequate emergency access. (OAR 660-12-065(3)(g)). Note: In the EFU, FF, and TC zones this use requires a conditional use permit (ORS 215.283 (3) and OAR 660-12-065 (5));
15. Replacement of docks and bridges (OAR 660-12-065(3)(m));
16. Construction of bikeways, footpaths, and recreation trails not otherwise allowed as a modification or part of an existing road (OAR 660-12-065(3)(h));
17. Construction of railroad mainlines and branchlines (OAR 660-12-065(3)(j));
18. Construction of park-and-ride lots within existing rights-of-way (OAR 660-12-065(3)(i));
19. Construction of pipelines (OAR 660-12-065(3)(k));
20. Expansions or alterations of public use airports that do not permit service to a larger class of airplanes (OAR 660-12-065(3)(n)); and
21. Construction of navigation channels (OAR 610-18-065(3)(l)); and
22. Transportation facilities, services and improvements other than those listed that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access (OAR 610-18-065(3)(o)). Note: In the EFU, FF, and TC zones this use requires a conditional use permit (ORS 215.283 (3) and OAR 660-12-065 (5)).

The following transportation projects will require administrative review:

1. In the EFU zone and on farm parcels in the FF zone, utility facilities necessary for public service, except commercial power generating facilities and transmission towers over 200 feet in height (ORS 215.283 (1)(d) and the Polk County Zoning Ordinance).

The following transportation projects will require a conditional use permit:

1. In the EFU zone and on farm parcels in the FF zone, personal use airports and helipads (ORS 215.283 (2)(g) and the Polk County Zoning Ordinance);
2. In the EFU zone and on farm parcels in the FF zone, transmission towers over 200 feet in height (ORS 215.283 (2)(l) and the Polk County Zoning Ordinance);
3. In the EFU, FF, and TC zones, construction of additional passing lanes and climbing lanes, requiring the acquisition of new right-of-way, but not resulting in the creation of new land parcels (ORS 215.283 (2)(p), OAR 660-06-025 (4)(u), and the Polk County Zoning Ordinance);
4. In the EFU, FF, and TC zones, reconstruction or modification of public roads and highways involving the removal or displacement of buildings, but not resulting in the creation of new land parcels (ORS 215.283 (2)(q), OAR 660-06-025 (4)(u), and the Polk County Zoning Ordinance);
5. In the EFU, FF, and TC zones, improvement of public road and highway related facilities, such as maintenance yards, weigh stations, and rest areas, where additional property or right-of-way is required, but not resulting in the creation of new land parcels (ORS 215.283 (2)(r), OAR 660-06-025 (4)(u), and the Polk County Zoning Ordinance);
6. In the EFU, FF, and TC zones, realignment of roads not otherwise allowed under ORS 215.283 or OAR 660, Division 6 (ORS 215.283 (3) and OAR 660-2-065(3)(d) and (5));
7. In the EFU, FF, and TC zones, replacement of an intersection with an interchange (ORS 215.283 (3) and OAR 660-12-065(3)(e) and (5));
8. In the EFU, FF, and TC zones, construction of a continuous median turn lane (ORS 215.283 (3) and OAR 660-2-065(3)(f) and (5));
9. In the TC zone, new electric transmission lines with right-of-way widths up to 100 feet as specified in ORS 722.210. New Distribution lines (e.g. gas, oil, geothermal) with rights-of-way 50 feet or less in width (OAR 660-06-025 (4)(p) and the Polk County Zoning Ordinance);
10. In the TC zone, aids to navigation and aviation (OAR 660-06-025 (4)(j) and the Polk County Zoning Ordinance);

11. In the TC Zone, expansion of existing airports (OAR 660-06-025 (4)(t) and the Polk County Zoning Ordinance);
12. In the EFU, FF, and TC zones, new access roads and collectors where the function of the road is to reduce local access to or local traffic on a state highway. These roads shall be limited to two travel lanes. Private access and intersections shall be limited to rural needs or to provide adequate emergency access (ORS 215.283 (3) and OAR 660-12-065 (3)(g) and (5)); and
13. In the EFU, FF, and TC zones, transportation facilities, services and improvements other than those listed that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access (ORS 215.283 (3) and OAR 610-18-065 (3)(o) and (5)).

The following transportation projects require an amendment to the transportation plan.

1. Road or highway that requires major new construction, i.e., construction that requires a new right-of-way in excess of 120 feet in width for more than 1,320 feet in length and which is not replacing an existing road or highway.
2. Road or highway that requires a major realignment, i.e. replacement of an existing road segment where the center line of the roadway shifts outside the existing right-of-way for ½ mile or more.
3. Construction of a new transit facility.
4. Construction of high speed rail or conversion of an existing line to high speed rail.
5. Improvements that will change the functional class of a roadway.

Road Plan

Existing Transportation System and Current Needs

Roads

Polk County maintains approximately 490 miles (784.4 kilometers) of roads. There are another 32.82 miles (52.5 km) which consist of public use roads and other county right-of-ways which are not maintained. The U.S. Bureau of Land Management (BLM), Oregon State Forestry Division, and Oregon State Parks Division manage 517.3 miles (827.6 km) of roads. The cities of Dallas, Falls City, Independence, and Monmouth have 178 miles (284.8 km) of streets, while the State of Oregon has 120.4 miles (192.6 km) of highway.

Prior to the completion of the county's TSP, it operated with two sets of functional classifications. Although the county had generally managed to align its County Classification system to the Federal Classification, there were situations where a road under the county's classification did not match the federal classification. Additionally, the resource classification had no federal classification counterpart.

The county has now begun using the federal classification followed by most jurisdictions. The following paragraphs contain descriptions of characteristics common to this method of classification.

Rural Road Classification Definitions

Principal Arterials: Serve corridor movements having trip lengths and travel densities characteristics indicative of substantial statewide or interstate travel; serve all, or virtually all, urban areas of 50,000 and over population and a large majority of those with population of over 25,000 and over; and provide an integrated network without stub connections except where unusual geographic or traffic flow connections dictate otherwise (e.g., international boundary connections and connections to coastal cities).

Minor Arterials: Link cities and larger towns (and other traffic generators, such as major resort areas, that are capable of attracting travel over similarly long distances) and form an integrated network proving interstate and inter-county service; spaced at such intervals, consistent with population density, so that all developed areas of the state are within a reasonable distance of an arterial highway; and provide (because of the two previous characteristics) service to corridors with trip lengths and travel density greater than those predominately served by rural collector or local systems. Minor arterials therefore constitute routes whose design should be expected to provide for relatively high overall travel speeds, with minimum interference to through movement.

Major Collectors: Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance, such as consolidated schools, shipping ports, county parks, important mining and agricultural areas, etc; link these places with nearby larger towns or cities, or with routes of higher classification; and serve the more important inter-county travel.

Minor Collectors: Are spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road; and provide service to the remaining smaller communities; and link the locally important traffic generators with their rural hinterland.

Rural Local: Serve primarily to provide access to adjacent land; and provide service to travel over relatively short distances as compared to collectors or other higher systems. Local roads will constitute the rural mileage not classified as part of the principal arterial, minor arterial, or collector systems.

Resource Road: Provide a connection between resource areas, and principal and minor arterials. These roadways are generally rural and provide access to agricultural and timber roadways, to facilitate movement of goods and services. Resource collectors provide an important and needed function in serving areas that contribute to the economic base of the community even though they may have low volumes of traffic.

The definitions of federal classifications in urban areas are not included in this document since the county has very few purely urban roads. The use of the word “urban” in front of a classification simply indicates that the road or a portion thereof is between the urban growth boundary and a city limit.

Table 5 provides a breakdown of road mileage under the jurisdiction of Polk County by existing federal classification.

Table 5
Polk County Road System Mileage by Functional Classification

	Rural	Urban	Total
Principal Arterial	0	0	0
Minor Arterial	0	8.7	8.7
Major Collector	100.4	5.09	105.4
Minor Collector	94.1	.8	94.9
Local	282.3	1.9	285.22

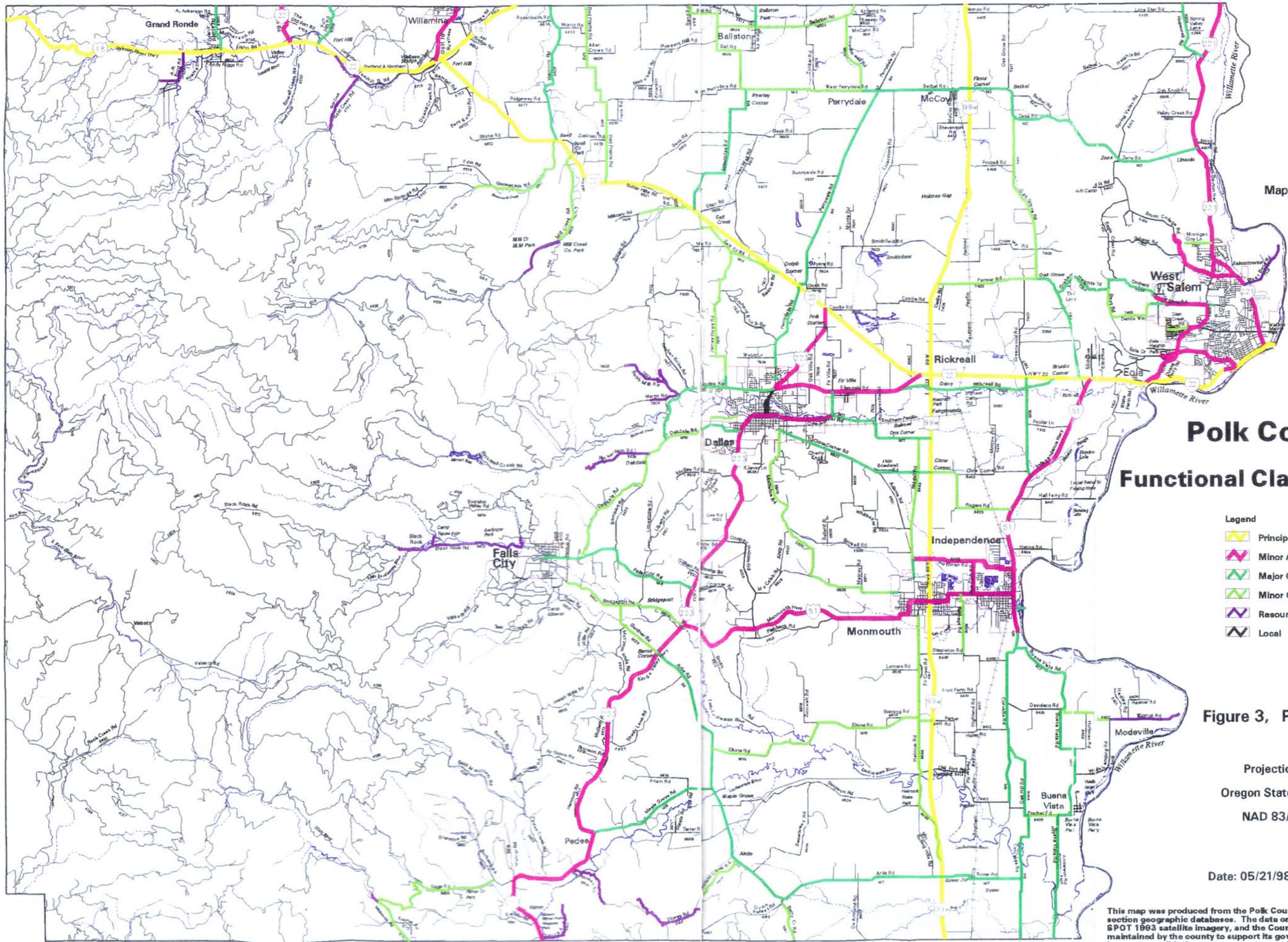
Source: Polk County Public Works

The county's roads were initially classified many years ago. Although periodic updates were required, there were factors which made reclassification difficult or impractical. One of these factors was the Federal Aid System. This now obsolete system affected project and road funding in the counties. Another factor was land use. Land which may have been developable to

medium or high density residential, commercial or industrial uses prior to enactment of Oregon's Comprehensive Land Use laws are either no longer developable or only developable to low densities, such as those areas zoned for rural residential development. Therefore, roads which may have once been logically anticipated to function at higher level classifications are no longer likely to do so. Thus, the county has reviewed its functional classifications, ceased use of its separate county classification system, and has made changes in federal classifications. **Table 6** shows the changes which have been made, and **Table 7** shows the complete list of minor arterials, collectors, and resource roads. **Figure 3** is a map of functional classifications.

One exception to cessation of the county classification system is the resource road classification. This classification is still useful. It is used to identify roads which may require repair and maintenance support greater than traffic counts would indicate. These roads play a critical role in the county's economy, and their use by heavy trucks requires additional work. The classification of the resource roads will be closely monitored to ensure they are continuing to provide resource needs.

Figure 3
Map of Functional Classifications



Map Scale 1 Inch = 2.5 Miles

Polk County Functional Classifications

- Legend**
-  Principal Arterial
 -  Minor Arterial
 -  Major Collector
 -  Minor Collector
 -  Resource
 -  Local

Figure 3, Page 39

Projection:
Oregon State Plane
NAD 83/91

Date: 05/21/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Table 6
Functional Classification Changes
Polk County Road System

Name	Segment	Previous Class	New Class	Remarks
Ball Road	Yamhill County Line - Ballston Road	Rural Major Collector	Rural Minor Collector	Consistency with Yamhill County
Ballston Road	Ball Road - Dejong Road	Rural Major Collector	Rural Minor Collector	Reduced Development Potential
Bridgeport Road	Frost Road - Gardner Road	Rural Major Collector	Rural Minor Collector	Consistent with Use
Brown Road	Hwy. 22 - Old Military Road	Rural Local	Rural Minor Collector	Consistent with Use and Area Development
Brush College Road	Salem UGB - Salem City Limits	Urban Minor Collector	Urban Minor Arterial	Consistency with Salem TSP
Clow Corner Road East	Hwy. 99 - Rogers Road	Rural Major Collector	Rural Minor Collector	Consistent with Use and Development Patterns
Corvallis Road	Independence UGB - Independence City Limits	Urban Major Collector	Urban Minor Arterial	Consistent with Independence TSP
Farmer Road	Hwy. 99 - Oak Grove Road	Rural Major Collector	Rural Minor Collector	Consistent with Use and Potential Development
Fir Villa Road	Dallas UGB - East Ellendale Road	Urban Local	Urban Major Collector	Consistent with Dallas TSP
Fir Villa Road	East Ellendale Road - Orrs Corner Road	Urban Minor Arterial	Urban Major Collector	Consistent with Dallas TSP
Gardner Road	Bridgeport Road - Hwy. 223	Rural Major Collector	Rural Minor Collector	Consistent with Use and Potential Development
Glen Creek Road	29th Place NW - End of Road	Rural Local	Urban Minor Collector	Consistent with Road's Operation, Area Development, and Salem TSP
Gooseneck Road	Hwy. 22 - End Pavement	Rural Local	Rural Minor Collector	Consistent with Recent and Potential Development
Haley Road	Parker Road - Corvallis Road	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
Main St. (Buena Vista)	Riverview St. - Park St.	Rural Major Collector	Rural Local	Consistent with Use and Potential Development
Maxfield Creek Road	Airlie Road - Benton County Line	Rural Major Collector	Rural Minor Collector	Consistent with Use and Development Pattern - Major Collector in Benton Co.
Michigan City Lane	Hwy. 221 - End of Road	Rural Local	Rural Minor Collector	Consistent with Salem TSP
Mistletoe Road	Monmouth UGB - Monmouth City Limits	Urban Minor Arterial	Urban Major Collector	Consistency with Monmouth TSP
Mistletoe Road	Dallas City Limits - Monmouth UGB	Rural Major Collector	Rural Minor Collector	Reduced Development Potential - Other Collector Alternatives
Myers Road	Perrydale Road to Smithfield Road	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
Oakdale Road	Dallas UGB to	Urban Minor	Urban Major	Consistency with Dallas TSP

Name	Segment	Previous Class	New Class	Remarks
	Dallas City Limits	Arterial	Collector	
Oakdale Road	Falls City Road to Dallas UGB	Rural Major Collector	Rural Minor Collector	Reduced Development Potential - Other Collector Alternatives
Old Fort Road	Helmick Road to Parker Road	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
Parker Road	Hwy. 99 to Haley Road	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
Perrydale Road	Yamhill County Line to Bethel Road	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
Prather Road	Corvallis Road to Buena Vista Road	Rural Major Collector	Rural Minor Collector	Consistent with Use and Development Potential
Red Prairie Road	Yamhill County Line to Hwy. 22	Rural Local	Rural Minor Collector	Consistent with Use
Rogers Road	Clow Corner Road (East) to Hwy. 51	Rural Major Collector	Rural Minor Collector	Consistent with Use and Development Patterns
Salt Creek Road	James Howe Road to Hwy. 22	Rural Local	Rural Minor Collector	Increased Development Potential
Smithfield Road	Myers Road to Hwy. 99	Rural Minor Collector	Rural Local	Consistent with Use and Potential Development
SW Clay Street	Dallas City Limits to End of Road	Rural Local	Rural Minor Collector	Consistent with Dallas TSP and Potential Development
Talmadge Road	Independence City Limits to Stapleton Road	Rural Local	Rural Minor Collector	Consistent with Independence TSP
West Perrydale Road	Dejong Road to Broadmead Road	Rural Major Collector	Rural Minor Collector	Consistent with Use and Projected Development
Willamette Ferry Street	Buena Vista to Willamette River	Rural Major Collector	Urban Minor Collector	Consistent with Independence TSP

Source: Polk County Public Works Department, 1996

Table 7
Functional Classifications
Arterials, Collectors, and Resource Roads
Polk County Road System

ROAD TYPE/NAME	SEGMENT
Minor Arterials	
Brush College Road*	Salem UGB to Salem City Limits
Corvallis Road*	Independence UGB to Independence City Limits
Doaks Ferry Road	Hwy. 22 to Orchard Heights Road (varies)
Eola Road	Doaks Ferry to Salem City Limits
Hoffman Road	Riddell Road to Gun Club Road
Orchard Heights Road	Salem UGB to Salem City Limits
Major Collectors	
Airlie Road	Kings Valley Highway (Hwy. 223) to Pacific Highway West (Hwy. 99W)
Bethel Road	Broadmead Road to Bethel Road
Buena Vista Road	Corvallis Road to Benton County Line
Clow Corner Road (West)	Godsey Street to Hwy. 99W
Corvallis Road	Independence City Limit to Benton County Line
Dejong Road	Ballston Road to Yamhill County Line
Ellendale Road (West) (Portion is Urban Collector)	Oakdale Road to inside Dallas City Limits
Enterprise Road	Beck Road to Hwy. 22
Falls City Road	Hwy. 223 to Falls City City Limits
Fort Hill Road	Yamhill County Line to Hwy. 18
Grand Ronde Road	Salmon River Highway (Hwy. 18) to Yamhill County Line
Greenwood Road	Rickreall Road to Independence Highway (Hwy. 51)/ Hwy. 22 to Rickreall Road
Harmony Road	Hwy. 22 to Yamhill County Line
Hopewell Road	Salem-Dayton Highway (Hwy. 221) to Yamhill County Line
Maple Grove Road	Hwy. 223 to Airlie Road
Mistletoe Road*	Monmouth UGB to Monmouth City Limits
Oak Grove Road	Farmer Road to Hwy. 22
Oakdale Road*	Dallas UGB to Dallas City Limits
Orchard Heights Road	Oak Grove Road to Salem UGB
Orrs Corner Road	Dallas City Limits to Hwy. 99W
Perrydale Road	Bethel Road to Reed St NW (Dallas)

ROAD TYPE/NAME	SEGMENT
Rickreall Road	Hwy. 99W to Hwy. 22
South River Road	Corvallis Road to Marion County Line
Suver Road	Hwy. 99W to Corvallis Road
Zena Road	Bethel Road to Hwy.221
Minor Collector	
40th Avenue NW	Dahlia Way to Orchard Heights Place
Ball Road*	Ballston Road to Yamhill County Line
Ballston Road*	Ball Road to Dejong Road
Ballston Road	Dejong Road to Yamhill County Line
Berry Creek Road	Airlie Road to Benton County Line
Best Road	Orchard Heights Road to Dahlia Way
Bridgeport Road*	Frost Road to Hwy. 223
Broadmead Road	Ballston Road to West Perrydale Road
Brown Road*	Hwy. 22 to Old Military Road
Clow Corner Road (East)*	Hwy. 22 to Rogers Road
Dahlia Way	Best Road to 40th Ave. NW
Elkins Road	Airlie Road to Helmick Road
Farmer Road*	Hwy. 99 to Oak Grove Road
Gage Road	Wildwood Road to Burbank Road
Gardner Road*	Bridgeport Road to Hwy. 223
Glen Creek Road*	29th Place NW to End of Road
Gooseneck Road*	Hwy. 22 to End of Pavement
Helmick Road	Monmouth City Limits to Hwy. 99W
James Howe Road (Portion is Urban Collector)	Salt Creek Road to Ellendale Road (West)
Maxfield Creek Road*	Airlie Road to Benton County Line
Mill Creek Road	Hwy. 22 to End of Pavement
Michigan City Lane*	Hwy. 221 to End of Road
Mistletoe Road*	Dallas City Limits to Monmouth UGB
Oakdale Road*	Falls City Road to Dallas UGB
Oak Grove Road	Zena Road to Farmer Road
Prather Road*	Corvallis Road to Buena Vista Road
Red Prairie Road*	Yamhill County Line to Hwy. 22
Riddell Road (Portion is Urban Collector)	Orrs Corner Road to Whitesell Road
Rogers Road*	Clow Corner Road (East) to Hwy. 51
Salt Creek Road*	James Howe Road to Hwy. 22
SW Clay Street*	Dallas City Limits to End of Road

ROAD TYPE/NAME	SEGMENT
Talmadge Road*	Independence City Limits to Stapleton Road
West Perrydale Road*	Dejong Road to Broadmead Road
Wigrich Road	Buena Vista Road to Wells Landing Road
Wildwood Road	Gage Road to Benton County Line
Urban Collector (In addition to those above)	
Eola Drive	Salem UGB to Doaks Ferry Road
Fir Villa Road*	East Ellendale Road to Orrs Corner Road
Orchard Heights Place	40th Avenue NW to Orchard Heights Road
Resource Road (This is a County Specialized Classification)	
A.R. Ford Road	Hwy. 18 to End
Black Rock Road	Falls City City Limits to Old RR Grade
Gage Road (Also Minor Collector)	Wildwood Road to Burbank Road
Gold Creek Road	Yamhill River Road to End of County Maintenance
Grant Road	Hwy. 223 to End
Ira Hooker Road	Hwy. 223 to End
Martin Road	Robb Mill Road to End
Mill Creek (Portion is Minor Collector)	Hwy. 22 to End
Richardson Road	Oakdale Road to End
River Bend Road	Salem City Limits to End
Robb Mill Road	Ellendale Road (West) to Gated End
Socialist Valley Road (East and West Ends)	Black Rock Road to Camp Tapawingo/Start to Lucas Road
Storey Road	Maxfield Creek Road to End
Wigrich Road (Portion is Minor Collector)	Wells Landing Road to End
Wildwood Road (Portion is Minor Collector)	Gage Road to End

Source: Polk County Public Works Department, 1996

* Indicates functional classification of some or all of the road has been amended - see Table 6.

Road Network and Standards

There are four types of road ownership in Polk County. A *state road* is a public roadway owned, maintained and improved by the State of Oregon. A *city street* is a public roadway owned, maintained, and improved by the applicable city. A *county road* is a public roadway which has been accepted by the Polk County Board of Commissioners as a county road and for which the county is responsible for improvements and maintenance. A *local access road* (aka public use road) is one which has been dedicated to public use, and ownership has been accepted by the county, *but without obligation, responsibility, or agreement for improvement or maintenance.* A

local access road could be a driveway, easement for road access, or a road created for the specific purpose of providing road access from a parcel to another local access road or county road.

The road network which will serve the county for the next 20 years is essentially in place. Except for new roads and realignments discussed in, *Transportation Forecast and Deficiencies*, for three rural residential (AR-5) zoned areas (**Figures 9, 10, and 11**) and in the Salem Transportation System Plan, no other major development events are expected to occur which will cause significant relocations, or construction of other new arterials or collectors. Modernization, maintenance, repairs, and minor improvements should continue to be aggressively pursued to keep the road network functional.

When a county road enters the UGB of a city, it will assume the functional classification of the city's street which is its extension. Maintenance standards will remain that of the county; however, new construction standards will be that of the respective city. This in no way implies that the county is obligated to improve the road to the city's standard, but rather that when improvements are done those standards will be considered, and efforts made to follow the city's standards in so far as the county deems possible. One improvement funding scenario is joint city-county financing of all or parts of the improvement. Within five years of adoption of this plan, the county will develop intergovernmental agreements (IGA) with each of its cities to address this issue. Since it is expected that transfer of jurisdiction will be integral to the decision process, it is anticipated that the IGA will include provisions relating to jurisdictional issues.

County Road Standards

In accordance with provisions of the transportation planning rule, standards in **Table 8** are not considered land use regulation, and are not intended to be adopted as such. Standards are provided herein for ease of review, but they are subject to change by appropriate county determined means, such as Public Work procedures, or county ordinance.

Table 8
Polk County Road Standards^{1,2,3}

Functional Classification	Right-of-Way Urban/Rural	Developed Roadway Urban/Rural	Parking Urban/Rural	Bikeway Urban/Rural
Major Arterial	84 feet/N/A	70 feet/N/A	No/N/A	Bike Lane/N/A
Minor Arterial	68 feet/60 feet	44 feet/44 feet	No/No	Bike Lane/Shared Roadway
Major Collector	68 feet/60 feet	44 feet/36 feet	No/No	Bike Lane/Shared Roadway
Minor Collector	64 feet/60 feet	44 feet/30 feet	Yes/No	None/None
Resource Road	N/A	N/A	No	N/A/None
Local	60 feet/60 feet	44 feet/22 feet	Yes/Yes	None/None
Cul-de-Sac	60 feet/60 feet	34 feet/22 feet	Yes/No	None/None

Source: Polk County Road Standards and Subdivision Ordinance

¹ Within the UGB, the applicable city's standards apply

² Roads which are designated as bike routes shall have a minimum of 4 foot paved shoulders, and the shared shoulder bikeway shall prevail

³ When volumes on county road exceed 1,000 ADT, shoulder bikeways will be used instead of shared roadway bikeways.

Access Management

Roads perform two basic functions--access to property for local traffic and allowing transit of through traffic. The functional classification of a road gives a clue as to its primary function. At the upper level, arterials are intended to primarily serve the through traffic, and at the lower end, local roads are intended to provide access to property. Collectors generally serve both purposes.

Since the majority of roads evolved from beginnings as local roads to a higher level of classification as an area grew, it is often difficult to attain the desired purpose without some reduction of service to residential, industrial, or commercial areas. A state highway which serves as the main street for a small town is often used for short trips and access to local businesses, industry, or even residences. But with increased traffic on the highway from growth in and/or out of the city, efficient service for both local and through travel becomes more and more difficult to attain. Lack of access management and insufficient coordination of land uses along the highway contribute to the degradation of the road network. Desire for traffic signals, new road approaches and driveways decrease speed and capacity while increasing both congestion and hazards. It has been estimated that the addition of a traffic signal will result in an almost automatic degradation of a road's level of service by one level.

Overall, access management is controlling vehicular access to a road. The simplest form of "management" is access denial which prohibits new accesses onto a major roadway. A related method of management is controlling where accesses are placed. Other forms include restricting left turns onto a highway, or not allowing cross traffic at intersections. Limits such as these provide a higher vehicle capacity on the major highway, which in turn allows higher speeds without requiring construction of additional traffic lanes. For several years, the state has placed

access limits on its highway system. **Table 9** shows these limits for the state highways in Polk County.

On the majority of Polk County roads, congestion is not now, or for the next twenty years expected to be a problem. Therefore, access management has traditionally been to ensure safety, and Polk County's road permit process is primarily to satisfy that purpose.

The county access management program differentiates requirements based upon functional classification. The general requirement for locating accesses is that they shall be provided in a manner and location that shall protect public safety. In addition to the general requirement, the following standards govern accesses onto county roads:

- Every dwelling shall have access to a public road or an easement. An easement for access to two or more dwelling units on lots established after November 13, 1970 shall be at least 60 feet wide. (Polk County Zoning Ordinance)
- The maximum number of access points from a lot or parcel in an adopted Urban Growth Boundary is one, but no more than 40 percent of the frontage shall be used for the access. This standard does not apply to "flag lots" or lots or parcels located on a cul-de-sac which have less than 50 feet of road frontage. (Polk County Road Standards)
- The maximum number of access points from a lot or parcel outside an adopted Urban Growth Boundary is two. However, additional access points may be permitted by the Public Works Director. (Polk County Road Standards)
- The spacing for driveway accesses is dependent on minimum stopping sight distance, and varies from 125 feet at speeds of 20 mph to 525 feet at speeds of 60 mph. For intersections, the spacing distance ranges from 200 at speeds of 20 mph to 575 feet at speeds of 60 mph . Refer to the Polk County Road Standards for further details.
- For access distances within a UGB, the applicable city's standard shall apply. For ease of reference, they are repeated in **Table 9**. However, a permit applicant and/or permit approval authority should periodically review the standards with the city to ensure currency.

**Table 9
Access Management Standards
State Highways**

Access Category & Hwy.	Level of Importance ¹	Section (Urban/Rural)	Intersection				Signal Spacing ⁴	Median Control
			Public Road		Private Drive ³			
			Type ²	Spacing	Type	Spacing		
Cat. 3 Hwy. 18/22	Statewide	U	At grade/intch	1/2-1 mile	Right Turn	800 feet	1/2-1 mile	Partial
		R	At grade/intch	1-3 mile	Right Turn	1200 feet	None ⁵	Partial ⁶
Cat. 4 Hwy.99	Statewide/Regional	U	At grade/intch	1/4 mile	Left & Right Turns	500 feet	1/2 mile	Partial/None ⁷
		R	At grade/intch	1 mile	Left & Right Turns	1200 feet	None ⁵	Partial/None ⁷
Cat. 5 Hwy. 221	Regional/District	U	At grade	1/4 mile	Left & Right Turns	300 feet	1/4 mile	None
		R	At grade	1/2 mile	Left & Right Turns	500 feet	1/2 mile	None
Cat. 6 Hwy. 51/223	District	U	At grade	500 feet	Left & Right Turns	150 feet	1/4 mile	None
		R	At grade	1/4 mile	Left & Right Turns	300 feet	1/2 mile	None

Source: 1991 Oregon Highway Plan

- ¹ Level of Importance is an indicator of the area a highway is primarily to serve. It will generally correspond to certain access categories. When the access category is higher than the level of importance, existing levels of access control will not be reduced.
- ² Type indicates an allowable intersection design option. The table above lists the basic options.
- ³ Private Drives:
 - a. Generally, no signals will be allowed at private access points on statewide and regional highways.
 - b. Allowed moves may be more restrictive than shown.
- ⁴ Signals should be spaced to minimize delay and disruptions to through traffic
- ⁵ In some instances, signals may need to be required, but only after examining other options. Additionally, long range plans should find ways to eliminate the need for the signal in the future.
- ⁶ Partial median control will allow some breaks in the physical barrier, but only if no deterioration of highway operation will result.
- ⁷ Median barriers can be interspersed with segments of continuous left turn lanes.

Table 10

**Access Management Standards
Cities Within Polk County**

DALLAS			
	Streets	Driveways	Intersections
Minor Arterial	500 feet	500 feet	1/4 mile
Collector	50 feet	50 feet	300 feet
Local	N/A	N/A	250 feet
FALLS CITY			
Minor Arterial	100 feet	N/A	N/A
Collector	100 feet	N/A	N/A
Local	50 feet	N/A	N/A
INDEPENDENCE			
Minor Arterial	300 feet	300 feet	N/A
Collector	N/A	N/A	N/A
Local	N/A	N/A	N/A
MONMOUTH			
Minor Arterial	300 feet	300 feet	N/A
Collector	N/A	N/A	N/A
Local	N/A	N/A	N/A
WILLAMINA			
Minor Arterial	500 feet	150 feet	N/A
Collector	N/A	N/A	N/A
Local	N/A	N/A	N/A

Source: City Transportation Plans and Ordinances

NOTE: In several of the cities above, one or more of the city streets, generally a minor arterial, is a state highway, under state ownership, and control. Individuals need to be aware that the appropriate access management requirements promulgated by the state will apply.

Bicycle and Pedestrian Element

The bicycle and pedestrian plan element is in response to requirements of the TPR, ORS 366.514, ISTEA, and applicable ADA requirements. The Oregon Transportation Plan and the Oregon Bicycle and Pedestrian Plan were consulted throughout the development of this element to ensure inter-jurisdictional consistency. Further, the county has combined planning efforts for both walking and bicycling because of recognized similarities in needs, service provision, and the economies of scale that can be gained through multi-use facilities.

The development of a bicycle and pedestrian plan reflects the county's commitment to encourage to provide for the various needs of all its citizens, including the transportation disadvantaged. The transportation disadvantaged population includes those who either do not have access to an automobile, cannot operate an automobile, or choose not to use an automobile for a variety of reasons. Bicycling and walking provide a low-cost alternative to all members of the population.

Bicycle/pedestrian facilities also provide a particularly valuable resource to school-age children, especially insofar as the facilities improve safety.

Network

The best way to accommodate bicycling and walking is on the existing road network. The regularly traveled roadway provides the best opportunity for an effective network of walkways and bikeways because it is already in place and connects the various activity centers. In addition, streets are very public, highly visible places where individuals feel safer for both themselves and their children.

There are several types of travel paths which make up bikeways. These are shared shoulder, shared roadway, bike lanes, and the multi-use path which is separated from the roadway. As appropriate in a rural area, Polk County generally uses the "shared" concept for its bike facilities. Furthermore, the county has made good efforts to establish bicycle system connectivity between its routes and those of the various cities. One county bikeway begins at the City of Dallas's Miller Street bikeway and uses a shared shoulder on Orrs Corner Road to connect to the multi-use path paralleling Highway 99W. From that intersection the bikeway proceeds to the City of Monmouth, where it connects to the city's bike route.

Shoulder bikeways are also located along the major state highways, Highways 18, 22, and 99W. There is a multi-use path paralleling Highway 22 from Eola Drive to near the Oak Grove Golf Course. At this point, the path uses a dedicated bike/pedestrian bridge to cross the highway and connect to Rickreall Road. Because of their relatively low traffic volumes, most county paved roads can support the shared roadway bikeway concept. Continuing its ongoing improvement of

the bicycle/pedestrian system, the county is planning an upgrade to Hoffman Road. This project is currently listed in the County's Five-Year Capital Improvements Plan. Additional projects which are merely conceptual at this point include upgrades to Ellendale Road (West) and Grand Ronde Road. These projects are listed in the section entitled, *Proposed System Improvements* and are shown in Figure 4. The county's bikeways are in a good to excellent state of repair.

Future Needs and Facilities

For the most part, the county's road conditions are presently acceptable for bicycle and pedestrian travel and will also satisfy the county's rural needs for the next twenty years. See *Transportation Forecast and Deficiencies* section for a brief analysis of future traffic. The exceptions are those roads already identified by the county in its efforts to continue its ongoing improvements. By taking actions in and near the UGB of its cities and unincorporated rural communities, the county is improving connectivity and safety of the bicycle/pedestrian system. Six-foot shoulder upgrades to Hoffman Road bordering Monmouth between Highway's 99W multi-use path and the county's Riddell Road will improve bicycle and pedestrian flow. Along Ellendale in the northwestern portion of Dallas, construction of a six-foot shoulder will connect to the city's sidewalk system near James Howe Road and carry the pedestrian/bicycle system to Rueben Boise Road. The final planned project is a six-foot paved shoulder on the north portion of Grand Ronde road from Highway 18 to the Yamhill County line. The potential for growth along this road has increased with the growth of the Confederated Tribes of Grand Ronde's activities. This improvement will also have benefits for school children attending the elementary school near Highway 18. A corridor refinement study which has just started in the Grand Ronde area will consider the need for crossings at Highway 18 and any connection to the county's system. Also being considered in the northwest part of the county is an evaluation of the South Yamhill River Road as a recreational bike/pedestrian facility connecting to Business 18 and continuing into Yamhill County. Although the state highway has shoulders meeting requirements for bicycle/pedestrian travel it is not a user-friendly environment for non-auto users.

The county considers the widening and paving of shoulders along Highway 18 (Business) from Willamina to Sheridan in Yamhill County a project of significant importance. This route is used regularly by recreational bicyclists, and current conditions present a danger to users. It will also provide a regional connection to the Polk County system.

Bicycle and pedestrian travel in rural community centers such as Rickreall is well accommodated by local streets without sidewalks or improved roads. In Rickreall the exception is crossing Highway 99W to the school; however, this is protected by crossing signs. Other attractors in that area include the small store and post office which are on the same side of the highway as the primary residential area. Bicycle or pedestrian road crossing of state highways to schools can also occur in Pedee, road crossing by bicycle/pedestrians can also occur in other rural areas such as Perrydale and Bridgeport. As a follow-on action to this TSP, the county will further evaluate the bicycle/pedestrian needs in the 14 rural community centers designated in the Comprehensive Plan. The County's standards for pedestrian facilities are found in the Polk County Subdivision and Partition Ordinance and in the County Road Standards.

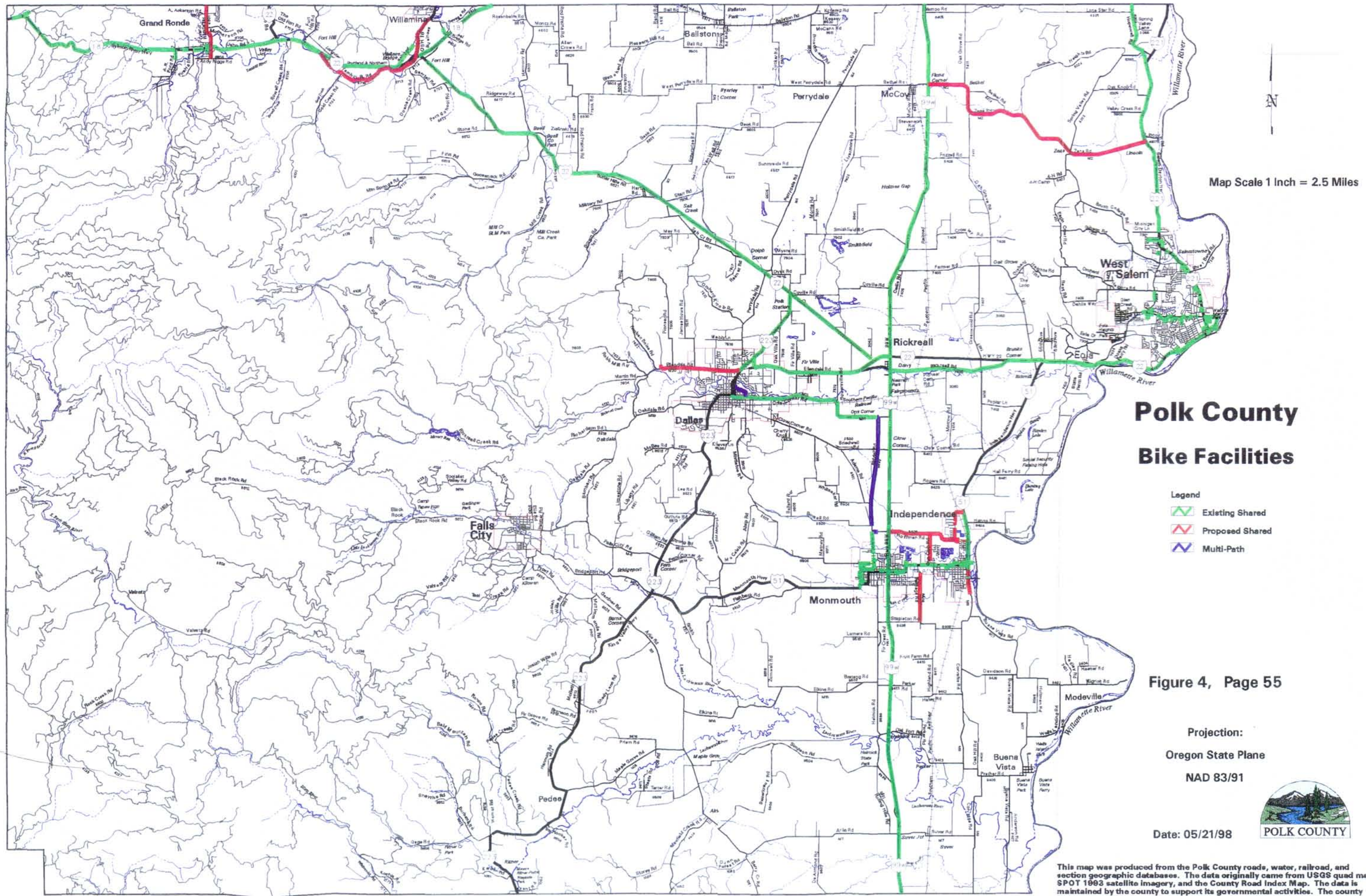
Currently, the most active need for sidewalks is in West Salem. The county cooperates with the City of Salem when development occurs requiring sidewalks in the area and by intergovernmental agreements uses the city's standards.

The *Proposed System Improvements* section contains a listing of the bicycle improvement projects that are under consideration for the county. **Figure 4** depicts the preferred bike/pedestrian routes in Polk County. Except for the multi-use paths, the routes are either shared roadway or shoulder bikeways. Outside the UGBs, no separate bike lanes are planned. Inside the UGB, the city's standards for bicycle/pedestrian facilities apply. However, this in no way implies that the county is obligated to improve the road to the city's standard, but rather that when improvements are planned, those standards will be reviewed and efforts will be made to follow the city's standards insofar as the county deems possible. If funding is a limiting factor, one approach is joint city-county financing of all or parts of the project. The county will develop intergovernmental agreements (IGA) with each of its cities to address this issue. Since it is expected that transfer of road jurisdiction will be integral to the decision process, it is anticipated that the IGA will include provisions relating to jurisdictional issues. More on funding can be found in the Finance section of this document.

Requirements related to the provision of bikeways is included in the County Subdivision and Partition Ordinance. County bike standards are contained in the County Road Standards, but are repeated below for ease of review.

Shared Roadway - It is desired that the road be paved, and provide good visibility with minimal vertical and horizontal curves. The road's travel lane should be at least 12 feet wide. When the ADT on such roads exceeds approximately 1,000 vehicles per day, the County will examine the feasibility of adding four-foot shoulders to each side so that the facility could become a shoulder bikeway. The preference will be to add the paving as part of an overlay, where possible.

Shoulder Bikeway - A paved shoulder with a minimum width of four feet from center of travel lane edge striping (fog line) to edge of pavement.



Map Scale 1 Inch = 2.5 Miles

Polk County Bike Facilities

- Legend
- ▬ Existing Shared
 - ▬ Proposed Shared
 - ▬ Multi-Path

Figure 4, Page 55

Projection:
Oregon State Plane
NAD 83/91

Date: 05/21/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Figure 4
Bicycle Facilities in Polk County

Air, Rail, Water, and Transmission Lines Element

Air

There is only one public airport in the county. It is a state-owned facility located in the City of Independence. It has a single, north-south oriented, asphalt runway, slightly over 3,000 feet long and 60 feet wide. The paved apron will accommodate 21 aircraft, with overflow on adjacent turf. In addition to tiedowns, there are 25 hangars. The airport has maintenance, fuel, and a manned fixed-base operation seven days a week. It serves general aviation aircraft, and has no scheduled airline operations. The airport does not have an instrument landing system, so operations are limited to visual flight rules. Approximately 124 general aviation aircraft are based at the airport and about 84 of these planes are based at the residential airpark located on the east side of the airport. The airpark presently has 90 homes with hangars. In 1996, the airport it was the ninth busiest non-tower airport in Oregon with 32,773 operations (each takeoff and each landing is a separate operation) and projects over 50,000 operations by 2016.

The number of operations is influenced by the adjacent airpark and a flight instruction operation. The flight instruction operation has closed its business, but a new operation is planned. It can be expected that the number of operations will either decline, or the rate of increase will drastically slow, at least in the near term. The field has the required lighting to support night operations. Presently the field does not have a published instrument approach, but plans call for publishing a non-precision global positioning system (GPS) approach.

In 1997, a draft Independence State Airport: Airport Layout Plan was developed (Aron Faegre & Associates). This report projected future operations at the airport and recommended a variety of improvements to the existing facility. The report forecasts airport operations to increase from 32,773 to 50,400 per year by 2015, an increase of 54 percent. The total capacity of the airport is 97,000 operations which means that by 2015 the airport will be operating at 56 percent of facility capacity.

The recommended improvements include a runway extension of 540 feet to the north and the addition of approximately 41 acres to the west for future parking and hangar development. The report also recommended incorporating the Airport layout Plan into the Polk County and City of Independence comprehensive plans.

Both the City of Independence and Polk County have airport overlay zoning “intended to accommodate the facilities necessary for general aviation purposes and to minimize potential dangers from, and conflicts with, the use of aircraft at Independence State Airport (Polk County Zoning Ordinance). The overlay zoning limits uses and imposes height restrictions within several defined areas. These include the airport “approach zone” which is a fan-shaped area

extending from the end of the runway for a distance of 4,000 feet and to a width of 1,250 feet and the airport “clear zone” which extends from the edge of the airport for a distance of 1,000 feet and a width of 312.5 feet. The width of both of these zones at the end of the runway is 250 feet.

All other airfields in Polk County are privately-owned. ODOT maintains an inventory of private airfields located throughout the state. Among those listed in Polk County are a private field near Airlie Road, another near Wigrich Road which supports an aircraft painting business, a third near Matney Road, and another near Bethel Road.

With development limitations imposed by exclusive farm use zoning to the north and west, high value homes to the east, and the city's water/sewer uses to the south; it is doubtful that the Independence Airport can be expanded to provide commercial passenger service. It is also likely that any attempt to do so will meet with significant public resistance. Therefore, air is not anticipated to play an important multimodal transportation role in Polk County.

Rail

The Hampton Railway operates between Willamina and Fort Hill (approximately 5.3 miles). The portion between Fort Hill and Grand Ronde was abandoned in 1985. Less than one million gross tons are transported over the line annually. It is maintained to Federal Railroad Administration (FRA) Class 1 standards. The connecting Willamette and Pacific Railroad (WPR) line has a weight restriction of 240,000 pounds per four-axle car near the west end of its line at Ballston. This also limits the carload weight on the Hampton line. This WPR line is programmed for upgrading with new ties, ballast, and surfacing to bring it up to Class 2 standards. This will allow speeds up to 25 mph (42 kph) with a potential to save 2.5 hours along the length of the track.

The Willamette and Pacific's Westside Branch runs from Monroe in Benton County to Newberg in Yamhill County. Roughly following Highway 99W, this branch intersects with the former Willamette Valley railroad in Independence, and the Dallas branch at Gerlinger (south of Rickreall Road.) Through Polk County the Westside Branch is maintained to FRA Class 2 and 3 standards. This branch handles over one million gross tons per year. The Dallas branch is 4.8 miles long and handles less than one million gross tons per year. It is maintained to FRA Class 1 standards. It is expected that the number of trips along the portion through Independence will increase from two trains per day to ten during the next twenty years.

Until the ICC granted a certificate of abandonment in 1985 to Southern Pacific, it had a 2.2 mile long branch that ran from Broadmead to Perrydale

The rail operations in Polk County over the next twenty years are expected to continue providing the same service as the last twenty years. That is, service to the timber and agricultural industries. Since 1986 there was sizeable tonnage growth statewide (reaching 54 million tons in 1992) in freight rail traffic, however most of the originating and terminating rail freight has been in counties other than Polk. The future both in Polk County, and the state, is difficult to predict,

but data does indicate a continued rise with a possible shift to commodities other than wood and farm products. Despite the previously mentioned trip increase, the impact on Polk County is expected to be minor.

While use of rail does reduce truck traffic in the county, rail service is not anticipated to play a significant role in reducing automobile use. Continued use of the existing rail system and rail line upgrades will contribute to maintaining a reduction in truck traffic.

The Oregon Transportation Plan's minimum desired level of service states that branch rail lines should be maintained to allow a minimum speed of 25 miles per hour whenever upgrading can be achieved with a favorable benefit-cost ratio.

In developing transportation plans, one point of contention between local jurisdictions and the rail service is grade crossings. The Oregon Department of Transportation has exclusive jurisdiction over all public rail crossings, and some private crossings. ODOT must improve new crossings and alterations and may order the installation of protective devices or the closure of any public crossings.

Water

In the county's early years, Independence was an important central shipping point on the Willamette River. In those years, the river was used to transport food from the Willamette Valley to gold miners in California. The goods were taken from warehouses and docks in Independence and shipped by steamboat to Portland. In 1885, a ferry operated from Independence across the Willamette River. Presently, a ferry owned and operated by Marion County operates Wednesday through Sunday, April to October, from Buena Vista, crossing between Polk and Marion Counties. The ferry serves approximately 1,000 vehicles during the operating period.

Over the years, the river has lost its significance as a transportation system, and its use is today is primarily recreational. In support of this use, a hydrographic survey to determine spot dredging locations is due for completion in May 1998. Although waterborne transportation is not expected to become a major form of multimodal transportation, several private operators are presently exploring opportunities for limited travel along the Willamette River.

Transmission Lines (Pipelines)

The only pipeline in the county is for natural gas. It roughly parallels Highway 22. Other lines for transmission of water, electricity, telephone, cable television, and towers for cellular phones and radio use are located throughout the county. The lines which are classified as utilities are authorized to use county road rights-of-way. Therefore, most of these transmission lines are located along county roads.

As noted above, the county use of natural gas pipelines is minimal, however, the use of other transmission lines is expected to grow as the population increases. Over the next twenty years there is optimism that telecommuting will grow in popularity. Should this occur, increased demands on county water, electric, and phone services will occur from those who change their work habits and remain at home. Those individuals who are most likely to be able to avail themselves of telecommuting presently work in office environments often outside the county in larger urban areas. The telephone company has been working for several years to replace older phone lines with fibre optics which can handle increased demand. The rural electric service, while adequate, is subject to outages in the winter, and has very little rerouting capability to bring power back on-line. Since it is anticipated that telecommuting will require reliable phone and electric service, improvements in these capabilities will be necessary. Water use increases resulting from telecommuting should not be as significant, but it is possible that peak usage will shift, and this needs to be anticipated by service providers.

Public Transportation Element

Inventory

There is no fixed route public transportation system in the rural portion of Polk County. The Mid-Valley Rideshare Program (formerly Salem Rideshare), operating in the Salem-Keizer area since 1975, is available to Polk County residents. This program includes carpool, vanpool, buspool matching service, a preferential parking program, and reduced parking fees for carpools. It is financed by ODOT through the Salem-Keizer Metropolitan Planning Organization (MPO) from federal Surface Transportation Program (STP) funds under the Intermodal Surface Transportation Efficiency Act (ISTEA). Approximately \$65,000 per year is allocated to this program. Approximately 360 residents from Polk County have enrolled in the rideshare program since January, 1996.

Intro-City Fixed Route Systems

The Salem Area Mass Transit District (Cherriots) is the only public transportation agency which fits into this category.

Salem Area Mass Transit District

The Salem Area Mass Transit District (Cherriots) operates Monday through Friday from 6:15 a.m. to 9:35 p.m., and from 7:15 a.m. to 9:35 p.m. on Saturday and holidays. Its nineteen routes through the Cities of Salem and Keizer are served by a fleet of 50 buses with seating capacities of 36 to 44 riders. The routes have 100 shelters with stops at designated locations. Adult fare is 75 cents with monthly passes, punch cards, and ticket books available for convenience and savings. In 1995, approximately 430,000 passengers used the fixed route system.

The Polk County area served by Cherriots is in West Salem. Routes 10, 12, and 19 serve the area. Routes 10 and 19 operate from somewhat after 6:00 a.m. until around 10:00 p.m., while Route 12 begins after 7:00 a.m. and operates until 9:35 p.m. Route 12 does have additional runs on weekends.

The three routes are shown in **Figure 5**.

Other than the previously mentioned Mid-Valley Rideshare Program, there are no formal transportation demand management programs in Polk County. In response to an earlier prepared public transportation element, comments were received from ODOT's Transportation Development Branch, Public Transit Section. These comments stress traffic demand management as an adjunct to public transportation. These comments, as well as others from the Department of Land Conservation and Development, are included in **Appendix G**.

Paratransit

For the purposes of this section, paratransit public transportation consists of those systems which primarily serve the disabled, elderly, or other transportation disadvantaged individuals.

General

There are at least 23 paratransit providers operating in the Salem/Keizer area. These providers cover a full range of services from the YWCA to retirement centers and agencies for the disabled. Although these providers collectively use a wide range of vehicle types, vans and automobiles are the most commonly used. There are over 52 vehicles used to serve over 363 clients. Although most of these providers venture out of the Salem/Keizer limits on special or work trips, they do not routinely serve rural county residents. For the most part, these providers only serve a specified clientele within a certain group. For example, they may serve the elderly, but only the elderly from a specific retirement center. A list of the providers in the Salem-Keizer area can be found in **Appendix C**.

There are nine paratransit providers in the remainder of Polk County. The largest of these is the Oregon Housing and Associated Services (OHAS) (AKA "Wheels"). Although OHAS could be listed with the Salem-Keizer groupings and does provide contract service to many of the other paratransit organizations, it also routinely serves a much broader base. Unlike the other paratransit providers, it is open to the general public. However, usage by the public is minimal. In addition to its dial-a-ride program operating Monday through Friday from 8:00 am to 5:00 p.m., OHAS operates local trips within cities outside Salem. For example, its vehicles run in Monmouth and Independence on Monday, Tuesday, Wednesday, and Thursday. Ten 18 to 22 passenger buses provide the bulk of the OHAS trips to approximately 35,000 riders annually. In FY 1997 and 1998, OHAS will receive \$92,000 from the Community Transportation Program grants administered by ODOT's Public Transit Section. This will be used to purchase new equipment and vehicles. The other eight paratransit providers operate out of Dallas, Monmouth, and Independence. See **Figure 6** for the location of the providers. Cherriots operates an on-call service for the disabled only and estimates up to 150 individuals in West Salem are eligible for this service.

In Dallas, the Department of Human Resources provides service for its clients using volunteer staff. This program extends as far as Portland and Corvallis. Its resources consist of one seven passenger mini-van located in Independence, and two state-owned automobiles. Polk County's Mental Health office contracts with, among others, Work Force NW for services for its disabled clients. The resources of this service consist of one 15-passenger and one 8-passenger van, together with two station wagons. This operation serves 34 developmentally disabled, and 20 vocational rehabilitation clients. In addition, the Mental Health program also contracts with

Figure 5
Transit Routes

Figure 6
Paratransit Providers

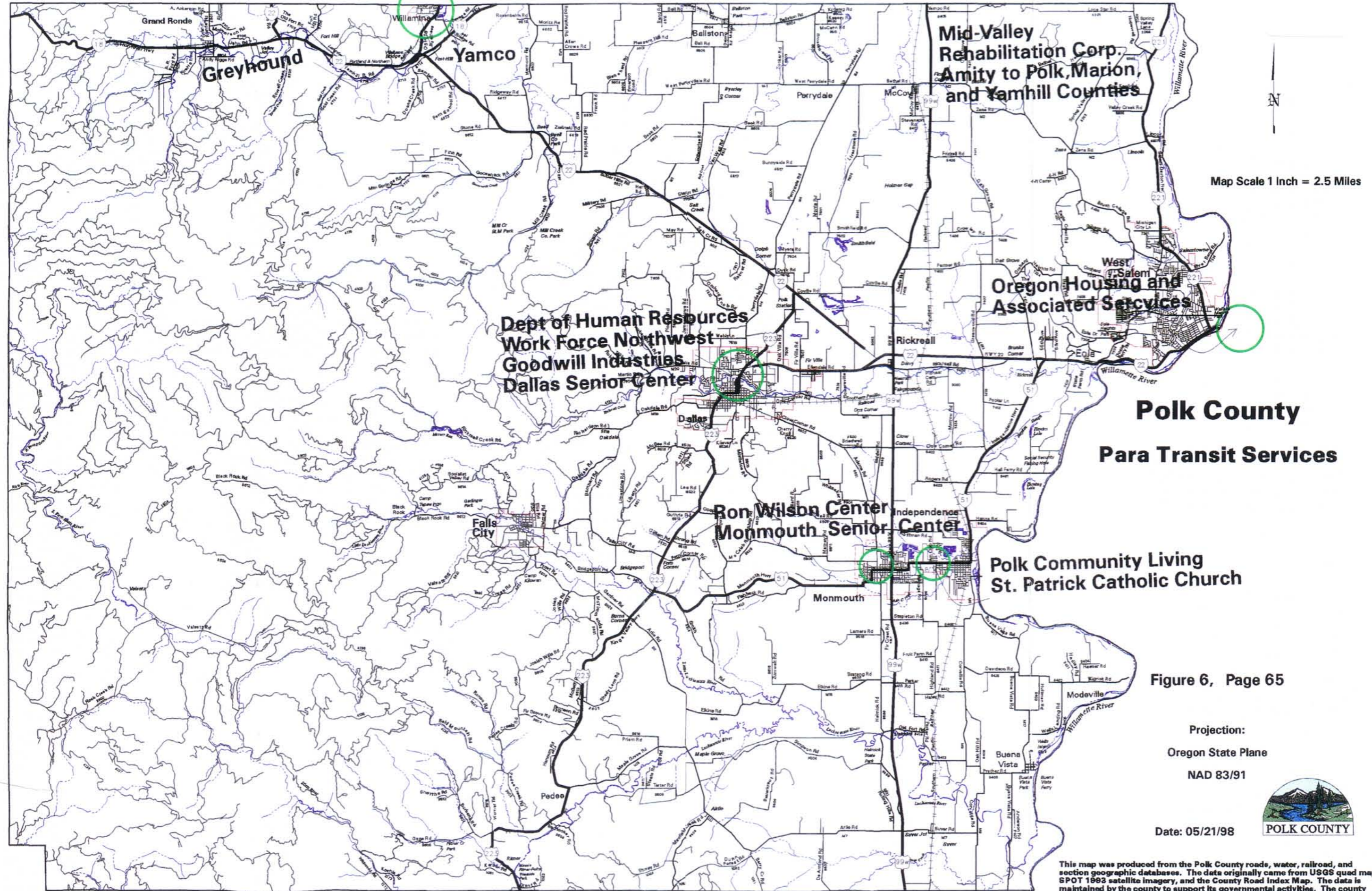


Figure 6, Page 65

Projection:
Oregon State Plane
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Date: 05/21/98



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Goodwill Industries for the transportation to and from work of one individual. The Dallas Senior Center has a 15-passenger bus primarily for day outings, but does provide medical trips in some situations.

In Monmouth and Independence, two of the four paratransit providers are also under contract to the county's Mental Health program. The Ron Wilson Center in Monmouth has two 7-passenger mini-vans, and one 12-passenger bus to serve 69 disabled clients. The Center also provides service for Seniors. Independence's Polk Community Living has one 18-passenger bus, one 16-passenger van, six mini-vans, and six automobiles available to provide service. Monmouth Senior Citizen Center has a 15-passenger bus for recreational excursions, and for homebound book deliveries. Saint Patrick's Catholic Church operates its single 7-passenger van with donations and volunteer help, and is available to the general public.

Other

In the past five years, Dallas has twice attempted a local taxi service but neither has continued operating. There are two taxi companies (29 vehicles) in Salem.

Greyhound Lines operates a fixed route service between Portland and Lincoln City with stops four times (two east and two westbound) daily in Willamina. A "flag down" stop is also available in Grand Ronde. This Greyhound route offers connection to northern and southern destinations.

Although not serving Polk County per se, YAMCO, based in McMinnville, operates a transportation service to/from Willamina. Polk County residents may use the service if they meet at the pick up point (corner of Main and B. Streets) on the Yamhill County side of the city. YAMCO provides service to Sheridan, McMinnville, and, through links to other providers, several other cities. See **Figure 7**.

The Spirit Mountain Casino operates a shuttle service through Polk County. On Tuesday, Wednesday, and Thursday the shuttles operates to and from the Portland area. On Tuesday, a shuttle has pick up and delivery at points in Salem.

Constraints and Opportunities

Generally, comments contained in the following sections are directed toward the county's paratransit operations.

Constraints

Mission and Funding

Within Polk County, the service (mission) a public transportation agency provides and its funds are significantly interrelated. The most commonly used funds for paratransit services are:

- Special Transportation Funds (STF) - State cigarette tax for the elderly and disabled.
- Title XIX - Federal funds for the medical transportation of the elderly, disabled, and disadvantaged.
- Section 5310 [formerly 16(16){B}{2}] - Elderly and Persons with Disabilities Formula Program - Federal funds to purchase vehicles and equipment for special transportation.
- Section 5311 [formerly 18(S18)] - Non-urbanized Formula Program - Federal funds to purchase and operate vehicles for public transportation systems in small cities and rural areas.

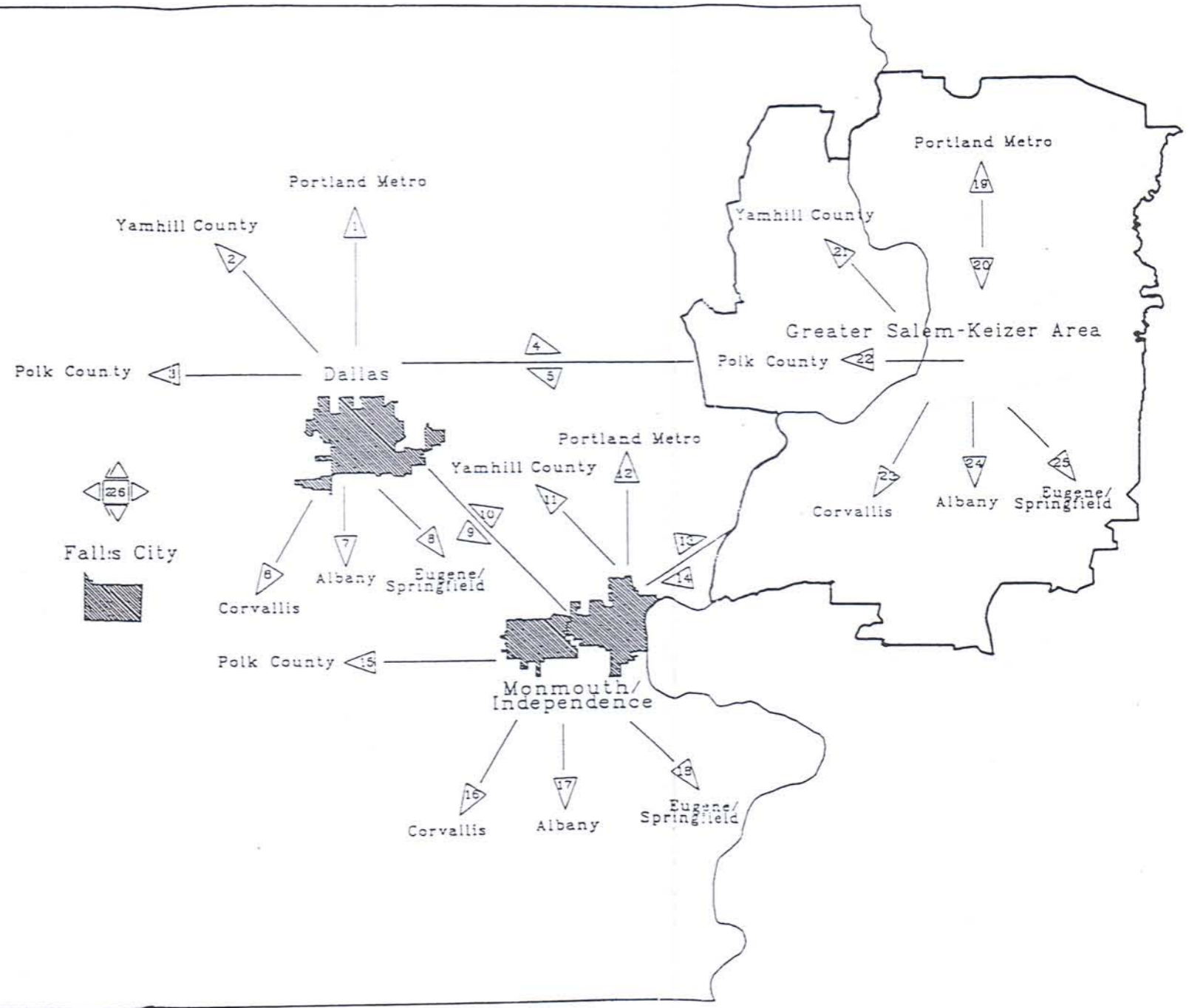
With the exception of the Section 5311 funds, monetary support is generally limited to that for the elderly and/or disabled. Limits on the use of funds can inhibit the trading or sharing of services between providers, and prohibit the outright expansion of the services into other markets, unless other sources of funds are obtained. No existing paratransit provider has a funding base which will allow it to expand to a general public, county-wide, fixed-route service provider, or even an inexpensive countywide paratransit operation. While funding is a major restriction on the ability of a provider to expand services, conflict between missions can also prove a deterrent.

Many of the smaller transportation providers were formed solely for a single purpose. For example, the senior centers provide a small van or bus for its members recreational activities. This vehicle is not available to the general public or other agencies, even if it was otherwise unused. In fact, the vehicle may not even be available to the center's own members for any purpose but recreation. Each provider has its own separate rules on vehicle operation and usage, and these separate rules are an obstacle to facilitating cooperation among providers.

Figure 7
YAMCO routes

Travel to Work From Selected Polk County Cities, 1990

Origin/Destination	Total Workers	Total Commuters	Peak Hour Commuters	Total Carpoolers
1 Dallas to Portland Metro	Dallas: 3,516	87	37	18
2 Dallas to Yamhill County		56	19	7
3 Dallas to Polk County		238	149	42
4 Dallas to Salem/Keizer		899	501	167
5 Salem/Keizer to Dallas		384	231	23
6 Dallas to Corvallis		47	33	16
7 Dallas to Albany		46	0	17
8 Dallas to Eugene/Springfield		10	10	0
9 Dallas to Monmouth/Independence	204	118	24	
10 Monmouth/Independence to Dallas	Monmouth/ Independence: 4,314	276	106	12
11 Monmouth/Independence to Yamhill County		45	40	11
12 Monmouth/Independence to Portland Metro		57	26	16
13 Monmouth/Independence to Salem/Keizer		1,158	655	138
14 Salem/Keizer to Monmouth/Independence		294	199	27
15 Monmouth/Independence to Polk County		251	170	32
16 Monmouth/Independence to Corvallis		72	34	17
17 Monmouth/Independence to Albany		61	31	0
18 Monmouth/Independence to Eugene/Springfield	26	18	0	
19 Salem/Keizer to Portland Metro	Salem/Keizer: 66,880	2,922	1,409	845
20 Portland Metro to Salem/Keizer		1,944	1,364	453
21 Salem/Keizer to Yamhill County		426	228	40
22 Salem/Keizer to Polk County		419	207	72
23 Salem/Keizer to Corvallis		284	194	48
24 Salem/Keizer to Albany		535	316	78
25 Salem/Keizer to Eugene/Springfield		192	86	66
26 Falls City- All	268	235	116	65



Prepared By Mid-Willamette Valley Council of Governments, June 1996

Perceptions

The county's paratransit providers take a great deal of pride in their ability to offer an important service to those who may otherwise be severely limited in their travel capability, and on their ability to provide these services on limited budgets. The addition of new services, perceived loss of control of operations, or other changes to the status quo can be perceived as negatively impacting the existing service.

Liability

The limits imposed on the county's providers by liability concerns are varied and greatly influenced by insurance company requirements. Because driver training requirements, size of the operations, clientele, type of vehicles, vary among the providers, their concerns differ. Thus, liability becomes an issue affecting the provider's capability to easily grow or even to conduct joint operations.

Service Area

In Polk County areas outside of West Salem, the population centers, while growing, are relatively small. Dallas and Monmouth/Independence contain the largest concentrations. These cities are approximately 9.5 miles apart, and travel time is nearly 15 minutes between centers. The remainder of the county's population is spread over a relatively large area, and offers little opportunity for efficient service.

Opportunities

Generally, comments in the following sections are directed towards the county's paratransit operations.

Area Coverage

Polk County is fortunate to have paratransit providers serving its largest cities. Even providers in the Salem/Keizer metropolitan area sometimes venture outside the strict city into Polk County. However, service to the western portion of the county is minimal. Because there are providers in the center and eastern portion of the county, there may be an opportunity to use this as a base for expanding or enhancing the paratransit operations (as noted in the following paragraphs), and to eventually extend public transportation services to a greater number of county residents.

Mission and Funding

Although mission and funding is a constraint, as mentioned earlier, it also can be an opportunity for paratransit providers to join their efforts, and assist one another.

When providers have the same funding source and/or deliver the same service, they have a common basis on which to build a good working relationship. In these instances, staff is trained and able to deal with the same client needs, vehicles are configured similarly, and the operational difficulties are familiar to the providers. The programs contracted by the county's Mental Health

program offer such an opportunity.

Other

Some additional opportunities arise for paratransit services to enhance their services. Many of the providers use the similar type vehicles, e.g., mini-vans and small busses. Typically, each provider has their vehicle serviced at a local service center. During the service period they may be without a vehicle, costs may be above the normal prevailing rates, or service personnel may be unfamiliar with a vehicles special requirements, e.g., wheelchair lifts. As an organized group, similar in concept to the Independent Grocers Association (IGA), the individual providers may be able to gain preferred treatment, in cost or service, from jointly contracting service. Presently, two providers in the City of Independence are attempting to cooperate on some aspects of their service.

Opportunities for increasing use of carpools and vanpools also exist. The Regional Rideshare Program serves Polk County but requires constant reinforcement so that residents are aware of its capabilities. Periodically, efforts to market the program are made but the impact in Polk County is minor. Placement of displays at prominent locations in the county courthouse; outside windows of the county clerk and community development offices may be worthwhile because of the high walk-in traffic. The county will promote and encourage carpooling.

Needs and Solutions

Needs

The need for public transportation in Polk County is established by mandated requirements, citizen input and government programs.

Requirements

The requirements of the TPR greatly influence the need for a public transportation system in Polk County. As mentioned earlier, the TPR mandates a requirement for a transportation systems plan, and the plan shall be based on an evaluation of alternatives. One of the standards required to be used to evaluate and select alternatives is: *The transportation system shall avoid principal reliance on any one mode of transportation and shall reduce principal reliance on the automobile.* Although there is more than one way to reduce automobile use, public transportation is the only one which has the potential to make a noticeable impact.

As part of the planning process to comply with the TPR by developing a TSP, Polk County developed certain goals, objectives, and evaluation criteria. Those are listed in the first part of this section. The recommended objective criteria used to evaluate public transportation is based on the Oregon Benchmark guidance. **Table 11** shows the Benchmarks and the statewide status.

Table 11
Oregon Benchmarks Related to Travel Patterns

Benchmark	Actual	2010 Target
#73-Percent of Oregonians who commute to and from work during peak hours by means other than a single occupancy vehicle	19% (1996)	31%*
#74-Vehicle miles traveled per capita in Oregon Metropolitan areas (per year)	7,982 (1995)	7,938

Source: *Oregon Shines II, 1997*

* The Progress Board revised this benchmark downward from those printed in the earlier 1995 Benchmark Report.

Since adoption of the TPR, other transportation plans have established policies, goals and objectives which lay out desires for public transportation. While these do not currently represent requirements, they may eventually do so. Regardless, they are pertinent to the issue, and will be briefly discussed in this document.

The Oregon Transportation Plan (OTP) calls for many steps relevant to public transportation. Some of these are:

- Provide alternatives to private passenger cars in each local area and region of the state.
- Hourly intercity passenger service should be available to major cities along I-5 in the Willamette Valley.
- Local public transit services and elderly and disadvantaged service providers should regularly connect with intercity passenger service.

Since the OTP was adopted in 1992, the Willamette Valley Transportation Strategy was added as part of the OTP. The Strategy requires a commitment to the minimum level of service of the OTP which:

- Expands existing urban transit services and systems to serve all parts of their regions.
- Provides transit services from metropolitan centers to neighboring cities with populations of 2,500 or more.
- Increases operational funding to support expanded local transit services.
- Develops urban transit systems in all cities of 25,000 or more.

The Strategy further stresses use of high speed rail, and as support for rail, it calls for daily round-trip bus service between major cities and neighboring small cities. During phase one (1995-1998), the strategy calls for beginning an expansion of the local/regional and intercity transit system, with emphasis on seeking operational funding. This continues into phase two

(1999-2002) which calls for transit service from metropolitan centers to neighboring cities with populations of 2,500 or more. Phase three (2003-2015) calls for continued transit expansion, development of transit in cities reaching 25,000 population, and daily round-trip bus service between major cities and neighboring smaller cities.

The Interim Strategy for the Willamina to Salem Corridor (Oregon Route 22) has the following objectives with public transportation impacts:

- Evaluate the feasibility of express bus service into downtown Salem and the Capital Mall from West Salem, and
- Using an approach that considers the entire corridor, establish park and pool/park and ride lots and promote car pooling.
- Examine the demand factors and opportunity for intercity bus service connecting Salem and other points on the corridor, particularly the Spirit Mountain Casino in Grand Ronde.
- Work with all providers of specialized social and medical services to improve the mobility of the transportation disadvantaged population in the corridor through greater service coordination.

The first two of these objectives stress reduction of congestion on the Willamette River Bridges.

The Interim Strategy for the Portland to Lincoln City Corridor (Oregon Routes 99W and 18) also contains several recommendations. However, as they relate to congestion, their emphasis is on travel between the Coast and Portland. Some of the recommendations which potentially have direct impacts for Polk County are:

- Resort-oriented bus operations such as those serving the casinos should be expanded, possibly to include other destinations on the Oregon coast.
- Passenger rail excursion service to the Spirit Mountain Casino should also be evaluated.
- Improve the mobility of the transportation disadvantaged population living within the Highway 99W/18 corridor.
- Consider expansion of dial-a-ride service for the transportation disadvantaged in Polk County.
- Improve coordination and sharing of equipment among special transportation providers.

The requirements and goals of adopted and proposed documents, as well as the Benchmarks, establish a need for a county public transportation program.

Citizen Input

Without a referendum on a county public transportation system, establishing need based on citizen desires is a subjective task. During the public involvement portion of this planning process, a limited survey was taken. However the response was too small to be significant and respondents did not clearly indicate a purpose for a public transportation system. It appears that respondents indicating support for a public transportation system did so even if the purpose or need was unclear or unknown.

Although little county data exists to establish need, there are some trends and general information which tend to support a conclusion that the citizens' desire for a public transportation system will increase over the next 20 years.

One of the trends is the growth in the numbers of elderly person over age 65. Polk County is experiencing such an increase. From 1980 through 1995, the percentage of elderly in the county grew from 12.6 percent to 16.4 percent of the county's total population (see **Table 12**). This does not appear to be a large increase, but one must remember that this is a percentage of the overall growing population, and results in more than 3,000 new elderly residents (a 59 percent increase in this group). (This is equivalent to adding another Willamina, Falls City, and Perrydale). As a percentage of the population, this sector of the population comprises a greater proportion of the total population in Polk County than in neighboring, Marion County, where elderly residents accounted for 13.5 percent of that county's population in 1995.

Table 12
Elderly Population Growth
Polk County 1980-1995

	1980	1995	Change 1980-1995
*Elderly Population	5,712	9,081	+3,369 (+59%)
Elderly as a percent of total population	12.6%	16.4%	+3.8%

Source: U.S. Census and Portland State Center for Population Research

* While the elderly population grew by 59 percent, the overall county population grew at only 23 percent

One of the groups which has supported public transportation are students and faculty from Western Oregon University. They have used public transportation when it was available in prior years; however, the numbers were not sufficient to warrant a public transportation system which relies primarily on WOU. Any public transportation system designed to remove vehicles from the highways would not be well served by trying to accommodate student needs.

Growth of the elderly population is significant because they are more likely to need public transportation than younger individuals. There are many reasons cited for this, but the two most prevalent are to save expenses and gradual declining physical abilities. These factors, coupled

with retirement giving more free time, make public transportation attractive to the elderly. Studies show that many rural elderly are immigrants to the community and less likely to have the informal social network of long term residents and therefore cannot rely on friends, relatives, and neighbors to provide transportation. This provides an impetus for using public transportation even in the rural area where it has not proven practical in the past. Paratransit services is the type of public transportation favored by the rural elderly.

Growth of the elderly population, and the resultant need for public transportation services is anticipated to accelerate. Previous growth can be related to factors such as improvements in medical care, but the accelerated growth will be from the so called "baby boomers." This group of individuals started turning 50 in 1996, and will be considered elderly in ten years. The numbers will continue to grow for over 20 more years. Thus, what has been a slow, but steady growth in a group which uses public transportation, will become a relative avalanche. Oregon's Office of Economic Analysis, Long Range Population and Employment Forecast uses age 65, rather than 60 to define elderly, and their report states, "In about 15 years, the elderly population is expected to increase by as much as 4 percent annually for the next twenty years".

While this avalanche will increase the need for a countywide public transportation system, there is a benefit to the road and street systems. The benefit comes from the retirement of the elderly and the fact that they will no longer drive to work during the congested peak hours.

Government Programs

Government programs have generated their own need for a public transportation system in Polk County. Largely the impetus of social programs, the small paratransit providers point to an industry which has grown to support the needs of the government programs.

A review of the public transportation inventory reveals an emphasis on transportation support for the developmentally disabled population. The support extends beyond medical needs to transportation to training and work locations. This is a logical outgrowth of programs to assimilate the developmentally disabled, into the general populace.

Similar to the government programs are the private programs of retirement villages. While the use of transportation for medical purposes is similar, other uses are different. Retirement center transportation uses are primarily for shopping and recreation.

Recent developments in welfare programs may also generate a need for transportation for those individuals who are returning to the work force from the welfare rolls.

The need for these transportation service grew from goals not directly related to transportation. But because of the longevity of the funding and social support for the programs from federal, state, and local levels, one must surmise that the government (and private) programs will continue to generate a need for transportation services.

Needs Conclusion

Requirements mandated through the governmental rules process make it clear that a public transportation service is expected to contribute to the reduced use of the single occupancy vehicle. Citizen desires within Polk County for a public transportation program are unclear, and although there has been de facto support of transportation programs for social services, one cannot state with certainty that the average citizen is even aware of the role transportation providers play in the social services arena.

However, the expected growth in population, employment, and the number of individuals who use public transportation make it evident that some sort of improved public transportation system will be necessary to relieve traffic congestion, and provide transportation for the disadvantaged.

Solutions

There are a wide range of factors which bear on determining solutions to the public transportation needs. Needs and the type of needs are one factor. Others are, financial capability to support a given solution, and the expected return from a particular public investment. The county's capability to support a given solution is beyond the scope of this element, and is ultimately a budgeting decision. However, this element does provide data and conclusions which bear on the returns the county can expect from various alternatives.

Ridership - Initial Operations

One of the most important factors which will have a major impact on the perceived success of a county public transportation system is ridership. Support for public transportation is often dependent on how the non-using public views ridership levels. Empty or near-empty buses are perceived as a sign of a failed program. Yet, a new program will often have poor ridership at the outset.

The recent Polk County Loop Thruway Bus Demonstration Project averaged only 3 passengers a day in its six month period of operation. There were some unusual situations involved in this project, but the sight of an empty 40+ passenger bus did not inspire widespread confidence. Towards the end of the project ridership begin to improve slightly , but that was likely overshadowed by the earlier perceptions.

Unless the county can be reasonably sure that a new operation will experience minimal "start-up pains," a much longer trial period is probably necessary. A longer period (possibly up to two years) will allow for early problems to be corrected. Ridership is likely to increase over time, so that at the end of the period, a more characteristic ridership level may be determined.

Ridership - Operating Times

Ridership is also affected by operating times. Operation of a public transportation system at the times convenient for people going to and from work is important to attract higher ridership levels.

But operations during commute times has its own risks. Users are less tolerant of late departures/arrivals as well as travel times which are considered significantly longer than their automobile commute. Travelers evaluate their trip on door-to-door travel time, just like they do when using automobiles. If a commute trip in an automobile takes 30 minutes to the workplace, commuters will expect a trip by public transportation to be nearly the same. If the trip by public transportation takes much longer, the users are more likely turn to using their automobiles.

Designers of a public transportation system recognize that part of the trip travel time is the time spent waiting for transportation. Transit studies show that a 5 minute waiting time is perceived as equivalent to 12.5 minutes of riding time. In short, users do not like to wait. While those without other options may be forced to tolerate such inconveniences, the commuter with an automobile option will be tempted to return to its use. Therefore, to obtain and maintain a high volume ridership, any system servicing commuters will have to minimize waiting time.

Ridership - Cost

Ridership is also affected by cost. Regardless of the true total cost of transit versus the automobile, the prospective user will pay no more than he or she perceives it is worth. The Polk County Bus Demonstration project charged \$4.00 for a one way ride between Salem and Polk County destinations (\$5.00 round trip). When compared with charges for commuting services from Salem to Portland and Eugene of approximately \$5.00 round trip per working day, and Wheels charges of \$3.00 for a round trip, the public probably did not perceive the Polk County Bus as a good comparative value.

To further place costs in perspective, one can look at a trip from Dallas to Salem. The approximately 15 mile trip takes approximately one and a half gallons of gas per round trip (assuming 20 mpg). This is slightly over two dollars a day in gasoline. While potential public transportation users understand that there are other expense factors involved in driving one's own vehicle, many of these costs are not perceived as everyday "out-of-pocket" expenses. Therefore, the non-daily (or even monthly) "hidden" expenses are often discounted in determining perceived value.

One other cost factor is parking expense. In downtown Salem, parking garages charge approximately \$50.00 per month, or slightly over \$2.25 per working day. While it seems logical to assume that a rate could be charged for public transportation which factors in parking and gasoline costs, conversations with members of the public indicate that most of them only consider one or the other factor when perceiving the "fair" cost of a fare. One reason may be that many potential users have employer-paid parking or use employer-owned lots. It appears that for most of the commuting distances involved in Polk County, a fare close to \$2.00 per working day is the level required to attract and keep users. When setting a fare, it is important to remember

that many potential users will need a financial inducement to overcome the perceived inconveniences of public transportation.

To a lesser extent, ease of fare payment is also a consideration. Requirements for correct change, being caught without money, time spent to make change, and variable fares all have negative impacts on ridership. Once again, inconvenience plays an important role. Monthly transportation passes help mitigate problems associated with fare payment, and makes management easier.

Ridership - Commuters

If ridership of a public transportation system during peak hour traffic is a factor in determining the type of system, one needs to be aware of the potential for attracting riders from single-occupant vehicles, especially commuters. The map and chart in **Appendix F** gives information relating to that potential.

Commuter traffic plays an important role in determining when a road must be improved to attain a higher capacity. Road design has been typically based on peak evening traffic, and if this traffic can be reduced, then major construction can be delayed.

In Polk County, Highway 22 is a state road which is projected to develop a decreasing level of service over the next 20 years. The 1990 census indicates 500 commuters travel from Dallas to Salem/Keizer during the peak hour, while 230 commute from Salem/Keizer to Dallas. From/to Monmouth/Independence, on Highway 51, the peak hour commute was 655 and 200. Based on population projections, it can be anticipated that these figures will grow to 770 and 355 by 2015 for Dallas, and 1010/305 for Monmouth/Independence. Thus, commuters are estimated to comprise over half of each cities' 2015 peak hour traffic.

The West Salem area contributes the bulk of the traffic using the Willamette River bridges during peak-hour commute. Emphasis on public transportation system for those in that area should be beneficial.

Removal of all the future commuters traveling between Dallas/Monmouth/Independence to and crossing the bridges to Salem/Keizer will have only an insignificant impact on future Highway 22 congestion near Doaks Ferry (6 percent reduction) and the Willamette River bridges (2.3 percent reduction). While only a minor benefit to the larger congestion problem, removal of commuter traffic would be expected to have a greater benefit in reducing peak hour congestion in the Independence, Monmouth, and Dallas. Although a benefit can be expected, it is not anticipated to prevent the need for roadway improvements during the next 20 years. However, a reduction in automobile use may allow some delays in when the work becomes necessary.

Alternatives

There are several variations of a public transportation system which could be implemented in Polk County. A fixed-route county-wide intercity bus system often appears attractive because a user can go anywhere in the county. Additionally, it can meet the long term goals of the various regulatory requirements. However, the near term (10 year) demand for travel between cities in the county does not appear to be sufficient to justify such a system. Furthermore, a countywide route is lengthy and it will take a few hours to complete one full trip. Additionally, since rural areas are noticeably less developed than urban areas they lack the density to support higher levels of public transit. In the future, a fixed-route intercity bus service for selected sub-regions of the county may be more advantageous, and overcome some of the difficulties.

Paratransit services generally offer convenient service, such as dial-a-ride programs providing door-to-door service. But these services are presently limited to specified groups; elderly, handicapped, etc. However, neither paratransit or county-wide fixed route systems offer a potential at this point to remove a significant number of automobiles from high use roads during the peak hour. A commuter shuttle service would offer a much higher potential because of its dedication to that service.

Recommended Public Transportation System

General

For the near term (10 years) the greater part of the county will not significantly benefit from a traditional (fixed route bus) system. The West Salem area is an exception, but it is located in an existing transit district which is served by the Salem Area Mass Transit District. Establishing a West Salem Express Bus service during peak hours should provide a greater relief to peak hour congestion than a similar operation in other areas of Polk County.

Encouraging vanpools may offer some near term options to the transportation disadvantaged. The Regional Rideshare Program will assist in forming and continuing vanpools. However, this does require an individual to initiate contacts with others at his or her workplace who live in the same area. There are several private providers of vanpool services, but they have concentrated on Salem, Portland, and Eugene connections.

There have been recommendations to expand the number of park and ride lots to serve an Express system in West Salem. It is doubtful that such lots would provide a large gain except for travelers going long distances, such as to Portland. There is probably little to be gained by the commuter in driving his/her automobile for 5 or 10 minutes to a park and ride, and then catch a bus for the last 10 to 20 minutes of the trip.

Over the longer term (10 to 20 years), the public transportation system which appears the most practical and gives the best return is based on a two phased approach. One phase reduces commuter single occupancy vehicle travel during peak hours while the second phase enhances the paratransit operation and develops its capability for long term uses via a regional,

cooperative approach.

Commuter Phase

In approximately 2006, a commuter shuttle service should be initiated between Dallas and Salem. Initially, two or three mid-sized buses capable of carrying 20 to 25 passengers should be deployed on daily (Monday - Friday) service from 6:30 a.m. - 8:30 a.m., and from 4:00 p.m. - 6:00 p.m.. Over time, as demand dictates, additional buses can be added or the carrying capacity increased.

An example of the schedule follows:

Empty bus leaves (presumably Salem) to be at central point in Dallas with adequate available parking (such as Safeway, Wal-Mart, or other location) ready to depart at 6:30 a.m. At that time, full buses depart from Salem Bus Mall and Dallas, proceeding in opposite directions. Each bus arrives at the opposite location at 7:00 a.m. A third bus could operate between those times, originating from Dallas or Salem, as deemed necessary.

Two mini-buses provide an opportunity to remove up to 160 single-occupancy vehicles from each peak hour traffic period. Although Monmouth/Independence has a greater number of commuters to Salem/Keizer, Dallas appears to offer a better two-way trip because of more commuters from Salem/Keizer to Dallas. The closer balance provides more opportunity to ensure buses are full in both directions.

Based on information from private providers, it is estimated that a contracted commuter shuttle service would cost from \$12,000 to \$17,000 per month (based on operating four hours per day). This estimate includes insurance, maintenance, vehicles, drivers, and most administrative costs. The lower end of the range is based on the willingness of a private provider to initially contract at cost.

The costs incurred can be offset by fare box recovery. The fare box return is estimated, based on full ridership (20 persons occupancy per bus) in two directions, to be \$8,800 per month. To attain this income, and to minimize administrative costs, it is recommended that only monthly passes guaranteeing a seat be sold. The passes would sell for \$55.00 per month. This is the same approach used by commuter buses to Portland and Eugene. The monthly fare is approximately \$2.50 per day based on 22 average working days in a month. It should be noted that fare recovery under this scenario is 58 percent, considerably higher than that attained by fixed route systems (15 percent average in the northwest).

The test period for a commuter shuttle should be for a minimum period of two years. However, if deemed successful after six months, a similar service between Monmouth/Independence and Salem could be initiated. Since some trial and error is likely in the initial setup, the "bugs" would be worked out before the second service is begun.

The primary purpose of the commuter shuttle service is to reduce use of single occupant vehicles

during commute hours. A secondary purpose is to offer an alternate mode of travel, and a third purpose is to provide a service for the transportation disadvantaged. It is anticipated that a commuter shuttle service will adequately serve these roles for ten years or more.

As an alternative to the commuter shuttle, the county could also consider a subsidized vanpool program. The program can be developed several ways. One is to provide low interest loans to individuals to purchase vans in return for a guarantee of its use as a viable vanpool. Similarly, a fixed amount could be given to an operator to assist in purchasing the vehicle. Using the fixed amount option as a method of calculating cost, a grant of \$2,000 per owner could be given. When compared to the net monthly operating expense of \$1,200 to \$8,800 for a shuttle, approximately two vans could be purchased. Each van could carry seven occupants in addition to the driver. Roughly three vans would provide the same ridership as one bus on one trip. But each bus makes more than one trip. So it would take approximately 23 vans to have the same impact as the shuttle. This outlay, at \$2,000 per van would be \$46,000. The \$46,000 is the same amount as estimated to be spend in approximately 14 months of a commuter shuttle operation.

The main benefit of this program is a wider county coverage with essentially door-to-door service. Also, the customer convenience should enhance acceptability.

The main disadvantage of the program may be one of public perceptions. It can be expected that some residents will automatically assume that the same program could be accomplished without expenditure of funds. Also, there could be concern or potential for abuse. One only has to recall stories of permits for handicapped parking or use of carpool lanes to envision how a devious person could "trick the system" regardless of controls.

Regardless, this option or a variation should be examined in more detail during the 2003 planning period. A subsidized vanpool concept is being used successfully in Wisconsin, and further planning would include a review of that program.

While the above paragraphs offer some operational recommendations in order to allow consideration of the concept, a specific, detailed operational plan must be developed prior to implementation of any service. The planning should begin by 2003 and be completed by beginning of the budget process in late 2005.

Paratransit Phase

The paratransit providers throughout the county are doing a good job of providing services to a specific group of transportation disadvantaged (developmentally disabled and elderly); however, it is expected that the need for these services will continue to grow. At the same time, existing providers will continue to find funding difficult to obtain. Therefore, it is necessary for the providers to find ways to both enhance their services and their resources.

In order to provide an opportunity for enhancing services, it is recommended that Polk County Mental Health, take the lead to organize and host working groups to bring together segments of paratransit providers on a sub-regional basis. This would be somewhat similar to the previous

Transportation Planning Group, but with a different emphasis and a smaller working group.

The two sub-regions envisioned are: (1) Monmouth/Independence, and (2) Dallas. The purpose of these groups would be to overcome individual operating differences and to maximize resources by coordinating and exchanging services, initially on a sub-regional basis, but potentially covering a larger area at a later date.

On a longer term basis, a sub-region may wish to offer a semi-fixed route system. On such a system, fare box recovery is anticipated to be considerably lower than that offered by the commute system, probably in the 15 to 20 percent range.

Transportation Forecast and Deficiencies

This section primarily deals with automobile travel. Forecasts and deficiencies of the other modes are included at various locations with their respective plans.

Traffic Volumes

With a few exceptions near urban areas, the county's roads are relatively lightly traveled. The rural areas which predominate in the county do not generally develop high traffic counts. **Table 13** lists the average daily traffic for the higher volume roads. These traffic counts were developed between 1994 and 1996.

Table 13
Average Daily Traffic
Higher Volume County Roads

Road Name	Road Section	From	ADT	To	ADT
Bethel Road	Perrydale Road - Highway 99W	Perrydale Road	700	Highway 99W	950
Bethel Road	Highway 99W - Zena Road	Highway 99W	1,910	Zena Road	1,950
Brush College	Eagle Crest Road - Salem City Limits	Eagle Crest Road	460	Salem City Limits	1,200
Buena Vista Road	Corvallis Road - Benton County Line	Corvallis Road Prather Road	1,250 450	Prather Road Benton County Line	450 550
Clow Corner Road	Dallas City Limits - Highway 99W	Dallas City Limits	3,100	Highway 99W	3,600
Corvallis Road	Independence City Limits - Benton County Line	Independence City Prather Road	2,050 500	Prather Road Benton County Line	500 950
Doaks Ferry Road	Brush College Road - Highway 22	Brush College Road Orchard Heights Road Glen Creek Road	1,250 1,850 2,790	Orchard Heights Road Glen Creek Road Highway 22	1,850 2,790 1,300
Ellendale Road (West)	Robb Mill Road - Dallas City Limits	Robb Mill Road	600	Dallas City Limits	3,370
Eola Drive	36 th Ave NW - Salem City Limits	36th Av. NW Doaks Ferry Road	330 820	Doaks Ferry Road Salem City Limits	820 1,280
Falls City Road	Falls City City Limits - Highway 223	Falls City City Limits	1,600	Highway 223	2,000
Fir Villa Road	East Ellendale Road - Orrs Corner Road	East Ellendale Road	1,910	Orrs Corner Road	2,540
Glen Creek Road	35 th Av. NW - Salem City Limits	35th Av. NW	690	Salem City Limits	1,710
Grand Ronde Road	Yamhill County Line - Highway 18	Yamhill County Line	1,940	Highway 18	2,150
Hoffman Road	Riddell Road - Independence City Limits	Riddell Road Highway 99W	1,280 2,040	Highway 99W Independence City Limits	2,040 2,750
Hopewell Road	Yamhill County Line - Highway 221	Yamhill County Line	1,900	Highway 221	2,150
Oakdale Road	Ellendale Road - Dallas City Limits	Ellendale Road	540	Dallas City Limit	1,260
Orchard Heights Road	Orchard Heights Place - Salem City Limits	Orchard Heights Place	760	Salem City Limits	2,700
Orrs Corner Road	Fir Villa Road - Highway 99W	Dallas City Limits	1,000	Highway 99W	750
Perrydale Road	Highway 22 - Dallas City Limits	Highway 22	1,330	Dallas City Limits	1,730
Rickreall Road	Highway 22 - Greenwood Road	Highway 99W Greenwood Road	540 1,130	Greenwood Road Highway 22	1,130 600
South River Road	Corvallis Road - Independence Bridge	Corvallis Road	3,400	Independence Bridge	3,400
Zena Road	Bethel Road - Highway 22	Bethel Road Bethel Heights Road	1,910 1,870	Bethel Heights Road Highway 221	1,870 2,180

Source: Polk County Public Works Department, 1996

Historically, traffic increases on the County's road system have been slow. The exception is the road system in and near West Salem, Independence/Monmouth, and Dallas. A "spot" analysis of roads near these areas is adequate to guide overall county needs.

Doaks Ferry Road in West Salem had a 1996 traffic count ranging from 1250 to 2790 ADT. The Salem TSP has addressed long term improvements for this road based on modeling projections from the Salem-Keizer Metropolitan Planning Organization. The road system in this area does not need further analysis to understand that the potentially capacity inadequate roads are dealt with in the Salem TSP, and those not included will retain adequate capacity. Spot improvement for safety, general maintenance, and repair will continue to be made and are not benefited by long term analysis.

Near Independence/Monmouth, Hoffman Road represents the worst case scenario in that part of the county. Using the average yearly traffic increase on the state highways through both cities, and applying this to Hoffman Road, traffic is calculated to increase by 3.6 percent per year. This fairly high rate of increase means the average daily traffic would increase from its 1996 highest count of 2,750 ADT to approximately 6,000 ADT by 2020. The road would continue to operate at LOS A during most of the day, with a potential for LOS B during p.m. peak hours. However, as shown in the Independence and Monmouth TSP, the roadway itself is not the limiting factor. Rather the intersections with 99W and Gun Club Road will limit level of service. Those TSPs contain proposals for improvements.

In Dallas, the county road with the highest 1996 traffic count is Clow Corner (3,600 ADT). Using a 3n percent per year factor for traffic increases, an ADT of approximately 7,000 vehicles per day can be expected by 2020. Assuming the bulk of the traffic occurs over a 12 hour period, the level of service on the road will remain at a borderline LOS A, but during p.m. peak hours could dip to an LOS C. The intersections with Uglow Street in Dallas, and with Highway 99W will provide greater limits on the levels of service. Upgrades planned on the highway will help with those problems.

Based on the analysis of these three roads, in the growth areas, an earlier statement that the existing road system is adequate for the period of this plan remains valid.

The state's road system handles considerably higher traffic volumes. On Highway 22, approximately 80,000 vehicles per day are recorded using the bridges into and out of Salem. By 2015, this is expected to increase to 103,900. The bridges' capacity is expected to be reached by 2005. From that location, westbound, the traffic volumes steadily decrease to approximately 31,000 vehicles per day near Doaks Ferry Road and to 17,100 slightly west of Highway 99W. Just past the Dallas turnoff at Highway 223, traffic is significantly reduced and is approximately 5,000 vehicles per day.

The Polk County portion of Highway 18 in the western end of the county has a high of almost 18,000 vehicles per day at Valley Junction, 11,500 vehicles per day near Grand Ronde, and a low of 6,600 vehicles per day at the Tillamook-Polk County Line. A relatively large increase in the traffic occurs near Grand Ronde Road. The traffic fluctuates from nearly 7,000 vehicles just west of Fire Hall Road to 11,500 just west of Grand Ronde Road. All ADT volumes on state highways are

obtained from the 1996 ODOT Traffic Tables. Roadway preservation is scheduled in the STIP at Valley Junction and Murphy Hill.

Modernization of portions of Highways 221 and traffic signal installation at Highway 99W and Hoffman Road are in the 1998-2001 State Transportation Improvement Program (STIP). Safety improvements are scheduled on Highway 223 and Cooper Hollow Road. Roadway preservation is scheduled at the Valley Junction/Murphy Hill area.

Accidents

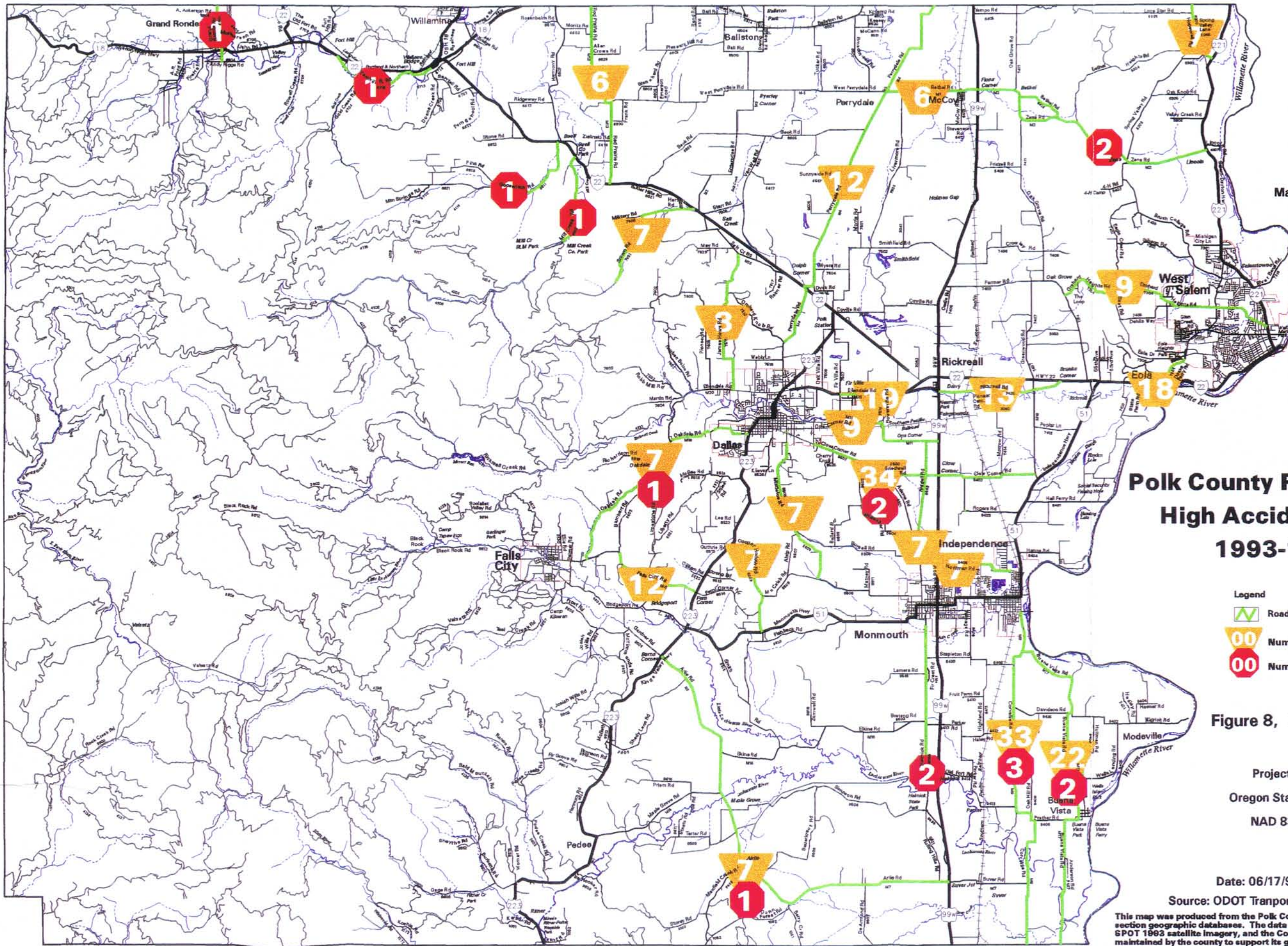
Records from 1993 to 1997 were reviewed to identify the roads within the County Road System highest accident numbers. A total of 256 accidents occurred on these roads. An additional 971 accidents occurred on state highways within Polk County during this period. The roads ranked by number of fatalities were also reviewed. A total of 17 fatalities occurred on County roads and an additional 33 fatalities occurred on state highways within the county.

Table 14 lists the roads in the county with the highest number of accidents and fatalities. These locations are shown in **Figure 8**. It should be noted that this accident data includes numerous accident causes, such as driver error and/or wet or icy road conditions, and does not necessarily indicate that road or intersection design improvements are needed to improve traffic safety. The Polk County Public Works Department has developed a database of accident information as part of this planning process and will continue to update and monitor future accident data so as to identify future safety improvements to County roads and intersections.

From 1993 to 1997, Highway 22 between Highway 18 and the Willamette River had 340 total accidents, with 12 of these accounting for 12 fatalities. High accident locations were clustered near Highway 51, Highway 99, Perrydale Road, and Wallace Bridge. There have been numerous small improvements to this section of Highway 22, including a redesigned intersection onto Brown Road and closure of Hart Road at the base of Butler Hill. Larger intersection street name signs allow earlier anticipation of some intersections, and new "rumble" lane markings warn drivers when their vehicles begin to stray.

Highway 18 between Wallace Bridge and the Polk-Tillamook County line experienced approximately 142 accidents from 1993 to 1997. Six of these resulted in six fatalities. An additional 11 accidents and two fatalities occurred on Highway 22 (Three Rivers Highway) between Valley Junction and the Polk-Yamhill County line. The development of gaming facilities near Valley Junction and Lincoln City, the added attraction of Keiko (the whale at the Oregon Coast Aquarium in Newport), a good economy for tourism and leisure activities, combined with overall growth in the Portland and Salem urban areas, have raised safety awareness. Some small improvements have been made to this highway. Most notable is installation of new, larger signs. In 1997, a 17.5 mile portion of the Highway 18 corridor, from Bethel to Fire Hall Road, was designated as a Safety Corridor by ODOT. In addition, a Corridor Refinement Plan process is currently underway for this area for the purposes of identifying possible safety and access improvements and improving local circulation. This project should be completed in early 1999.

Figure 8
Accident Locations



Map Scale 1 Inch = 2.5 Miles

Polk County Road System High Accident Areas 1993-1997

- Legend**
-  Roads with accidents
 -  Number of accidents
 -  Number of fatalities

Figure 8, Page 87

Projection:
Oregon State Plane
NAD 83/91

Date: 06/17/98



Source: ODOT Transportation Data Section

This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Table 14
High Accident and Fatality Locations
Polk County Road System
1993-1997

Road	Number of Accidents	Road	Number of Fatalities
Clow Corner Road	34	Corvallis Road	3
Corvallis Road	33	Buena Vista Road	2
Buena Vista Road	22	Clow Corner Road	2
Ellendale Road (West)	19	Helmick Road	2
Doaks Ferry Road	18	Zena Road	2
Rickreall Road	13	Airlie Road	1
Falls City Road	12	Gooseneck Road	1
Perrydale Road	12	Grand Ronde Road	1
Orchard Heights Road	9	Oakdale Road	1
Orrs Corner Road	9	Mill Creek Road	1
James Howe Road	8	Yamhill River Road	1
Airlie Road	7		
Brown Road	7		
Cooper Hollow Road	7		
Hoffman Road	7		
Mistletoe Road	7		
Oakdale Road	7		
Riddell Road	7		
Bethel Road	6		
Red Prairie Road	6		

Source: ODOT Transportation Data Section, 1998.

Pavement Type/Conditions

Slightly under half of the county road system is paved (242 miles/49 percent), while the remainder is primarily gravel (250 miles/50 percent). A small amount (5 miles/1 percent) is unimproved.

Inspection results through 1996 show almost 80 percent of the paved mileage to be in excellent condition. Another 17 percent is rated as good. Approximately 3 percent is rated fair to poor.

The county's ongoing chip seal program has contributed significantly to maintaining such good pavement conditions. However, the bulk of the roads received major work in the late 1980s and are now passing ten years since new paving was completed. By 2003, the road pavement will be 15 to 16 years old, and deterioration on the higher volume roads can be expected.

Intersections

A steady theme in the county's list of projects are improvements to intersections. The improvements have primarily been to "square off" intersections to improve a driver's ability to see oncoming traffic.

17 contains a list of intersection improvements, locations, action required, and estimated costs. **Figure 12** shows locations of intersection projects.

Once these improvements are made, no further upgrades should be necessary until such time as traffic increases to the extent that signals are warranted.

Bridges

Every other year, the Oregon Department of Transportation conducts an inspection of the county's bridges to determine their structural and functional condition. The inspection gives each bridge a "sufficiency rating" from 0 to 100, with 100 being the best possible condition. The rating is based on ten evaluation categories including; deck, superstructure, substructure, retaining wall, channel protection, deck and approach geometry, clearances, and safe load capacity. A rating of 4 (on a scale from 0 to 10) on the deck, superstructure, substructure, or culvert and retaining walls will make the bridge "structurally deficient". A rating of 3 or less on deck geometry, underclearances, or approach roadway alignment will make the bridge "functionally deficient." Of the county's 145 bridges, seven are weight limited, and another 13 are considered either structurally or functionally deficient. **Tables 15** and **16** contain the weight limited, and deficient bridges. **Figure 12** shows those bridges scheduled for improvements during the present work program. **Appendix C** shows bridge locations and notes those which are weight limited and deficient.

The bridge replacement schedule is ambitious and it could take a few additional years to complete the work. This, combined with work to improve other deficient bridges, is sufficient for the next 20 years.

Table 15
Weight Limited Bridges

Bridge Number	Road Name	Milepost	Limit (Tons)	Replacement Year	Construction Cost
53C080*	State Farm Road	0.11	5	1999	\$650,000
53C081*	State Farm Road	0.48	5	2000	\$428,000
53C112*	Socialist Valley Road	0.12	15	2001	\$392,000
53C136	Sheythe Road	0.05	5	1998	\$45,000 (Replace with culvert – vacate R/W)

Source: Polk County Public Works

Note: Socialist Valley Road is classified as a Resource Road, all others are classified as Rural Local roads.

*Replacement scheduled in the state's 1998-2001 Statewide Transportation Improvement Program (STIP).

Table 16
Deficient Bridges

Bridge Number	Road Name	Milepost	Sufficiency Rating	Road Classification	Deficiency
53C008	Farmer Road	1.58	69.9	Minor Collector	Structural
53C026	West Perrydale Road	1.65	53.0	Minor Collector	Structural
53C029	Greenwood Road	0.11	43.5	Major Collector	Structural
53C063	Old Military Road	0.10	13.0	Local	Structural
53C066	Gooseneck Road	4.15	70.6	Minor Collector	Functional
53C074	Gold Creek Road	2.00	41.1	Local	Structural
53C077	Fire Hall Road	0.14	70.7	Local	Functional
53C083	Rickreall Road	2.31	49.1	Major Collector	Structural
53C084	Smithfield Road	4.59	62.5	Local	Structural
53C093	Robb Mill Road	.54	8.5	Local	Structural
53C110	Frost Road	.51	59.8	Local	Structural
53C113	Wigrich Road	1.80	58.6	Local	Functional
*53C140	Wildwood Road	0.74	47.5	Minor Collector	Structural

Source: Polk County Public Works

*Replacement scheduled in the state's 1998-2001 STIP.

Impacts from Future Development

The estimated traffic figures used below are based on the addition of traffic from developable lands to existing and/or future traffic estimates. Since development capability in the unincorporated areas is limited by various land use statutes and rules, this method yields reasonable working figures. Generally, traffic increases on most county roads are not expected to be great especially in comparison to more populated areas.

In Polk County, the greatest ADT increases on county roads will be in the West Salem. This area is expected to increase from a present population of 14,735 (within city limits) to approximately 20,000 during the next twenty years. Doaks Ferry Road is anticipated to be approaching capacity deficiency during the same period. Additional data and information on forecasts for that area can be found in the 1996 Regional Transportation System Plan (RTSP) and the 1998 Salem TSP.

In the remainder of the county, full development of three areas zoned for rural residential use (**Figures 9, 10, and 11**) consisting of over 3,000 acres has the potential to generate nearly 3,000 additional vehicle trips per day.

The preferred alternative for each area, showing the proposed location of new local and collector roads, is described below. The various other alternatives considered for each area are described in **Appendix F**. The area located west and north of the City of Dallas is bounded by Pioneer and Reuben Boise Roads joining together and completing a loop from and onto West Ellendale Road. The Pioneer/Reuben Boise area could have as many as 139 additional homesites at full buildout. At buildout, this area is capable of generating approximately 1,400 trips per day. This would total 2,350 trips generated from the area. Presently the only outlet for these vehicles is through the Pioneer and Reuben Boise connections to West Ellendale Road.

The preferred alternative for this area (**Figure 9**) shows a connection between Reuben Boise Road and Pioneer Road which could serve the several hundred acres of vacant AR-5 property in this area. Acquisition of right-of-way and construction of this road would occur over time based on the level and intensity of rural residential development in this area.

The preferred alternative also shows an extension of Webb Lane to connect with Highway 223 on the east. As shown in **Figure 9**, the County will identify the future location of a connection between West Ellendale Road and the west end of Webb Lane, which is undeveloped. Such a connection coupled with the extension of Webb Lane to connect to Highway 223 would function as a limited access collector serving local traffic needs and rural land uses. This connection could serve the James Howe Road, Pioneer Road, and Orchard Knob Road area and could also be used as a truck route alleviating traffic problems on Ellendale Road. **Table 21** notes that the County will coordinate with the City of Dallas to identify the approximate location of the Ellendale Road-Webb Lane connection in the year 2000.

West Ellendale Road leads to the busiest intersection in the City of Dallas. This intersection is the connection point for all traffic using Highway 22 for commuting to points north, west, or

east. In 1992, ODOT followed up on a 1973 Oregon State Highway Division study and analyzed future alternative traffic routes to serve the city of Dallas, specifically in regard to the intersection of West Ellendale. This analysis only addressed existing traffic plus traffic generated by known planned developments in the Dallas UGB through 2016. It did not consider total buildout nor additional traffic generated from the Pioneer Road - Reuben Boise Road area. The study concluded that the Ellendale intersection would be in excess of design capacity by 2002 (no-build LOS F) during morning and/or afternoon commuter peak hours. The addition of a limited access collector road from the Pioneer Road/James Howe Road area would help improve the level of service to a mid-level LOS D.

A second area zoned for rural residential development is near West Salem. Traffic from this area presently exits onto Highway 22 through direct connections off 55th Avenue, or Doaks Ferry, off of Eola Drive. This area has a potential to generate an additional 1,000 trips per day for a total of 2600 trips. The 55th Avenue exit onto Highway 22 has been identified as a dangerous and high accident location and, as previously mentioned, the capacity deficient concerns on Doaks Ferry Rd make this a undesirable exit point also. In these two areas, the addition of one or more collectors is necessary for safety and to prevent aggravating congestion on other roads.

In comparison to other areas zoned AR-5 which were under review, the West Salem area has greater physical and topographic constraints, as well as significant public safety issues. With the exception of the area around the undeveloped portion of Eola Drive, this area does not have the large tracts of vacant, developable rural residential land found in the other study area. Consequently, the preferred alternative for this area (**Figure 10**) does not show future road locations where right-of-way would be acquired and roads constructed as residential development occurs.

The preferred alternative does identify a possible frontage road which could be constructed to alleviate public safety issues associated with Highway 22. In addition, Polk County will work with ODOT as part of the Corridor Planning Refinement Plan process on Highway 22 to identify one or more connections between 55th Avenue and Oak Grove Road, in the event that the 55th Avenue connection to Highway 22 is closed. This process is scheduled to begin in 1999. The county will seek ODOT assistance in design and construction of one or more of these connections, which would serve as a county road, if the 55th Avenue/Highway 22 intersection is closed.

An extension of the undeveloped portion of Eola Drive to connect with Oak Grove Road is also shown as part of the preferred alternative. This connection could provide an additional east-west route, if the properties along the undeveloped portion of Eola Drive (shaded area in Section 23) were developed. This connection may not be needed, however, if the corridor refinement process identifies sufficient east-west connections between 55th Avenue and Oak Grove Road to serve local traffic needs.

The third area, located south of Dallas is bordered by Cooper Hollow Road and Highway 223 is less critical for safety or capacity concerns. Traffic origination from this area will exit onto Highway 223 or Highway 51. Both highways are well below capacity. At full buildout, this area would have as many as 148 new dwellings and additional partitioning of several large

properties is anticipated. Road planning in this area is intended to improve the local road arterial system.

The preferred alternative for this area (**Figure 11**) shows several proposed connections between Ferns Corner Road, Highway 223, and Monmouth Highway. These connections would serve the largest vacant developable tract in the study area and would provide adequate circulation and access to this area. Acquisition of right-of-way and construction of these roads would occur over time based on the level and intensity of rural residential development in this area.

In the northwest portion of the county, the county roads connecting onto Highway 18/22 are already experiencing problems due to increases of traffic on the state highways. There is development potential in this Grand Ronde/Fort Hill/Valley Junction area which will exacerbate the problems. Currently, a major state sponsored refinement plan of the corridor is underway.

Although the county has other developable lands, they are not expected to generate significant traffic increases. Despite the lack of significant traffic increases there is still accident risk from poorly designed driveway or private road connections to the county road system.

Other issues and/or deficiencies were raised by officials and citizens at committee meetings and open houses. These concerns are contained in **Appendix G, Public Involvement**. Some of the concerns are addressed in earlier sections of this document, while others are awaiting further study by state or city jurisdictions.

The preferred alternatives for the rural residential zoned areas north of Dallas (**Figure 9**) and south of Dallas (**Figure 11**) identify the approximate locations of one or more new local roads that would need to be constructed as future development occurs. The general trending of these connections represents the best effort, at this point in time, to provide adequate access to potentially developable properties and connectivity to the existing road system. The approximate locations of these roads have been determined based on review of aerial photos and parcel lines, topography, and natural resource features as available in the County's Geographic Information System (GIS). In addition, staff has conducted numerous interviews with affected property owners to identify other possible constraints that were not readily apparent in reviewing the aerial photos and GIS data.

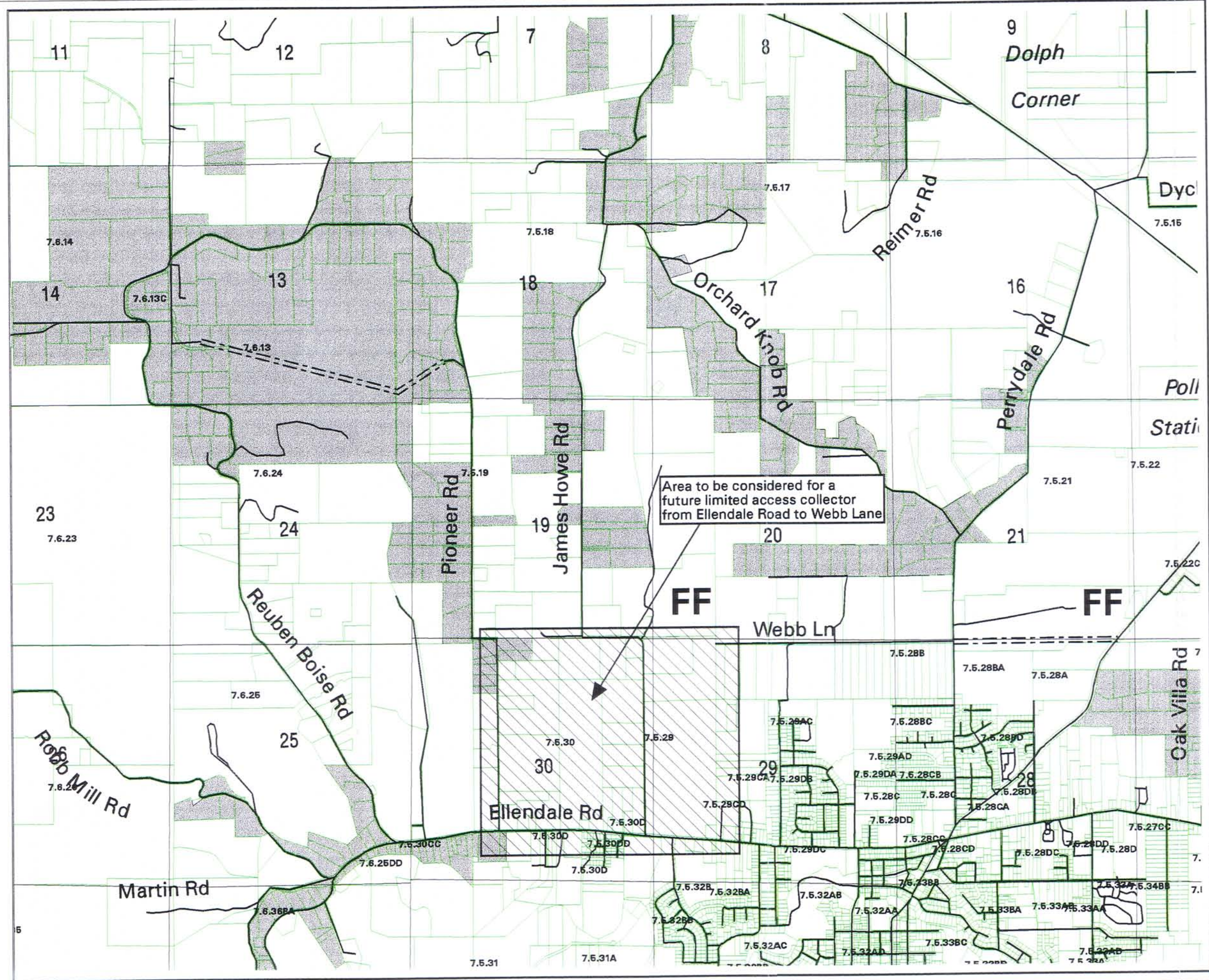
Polk County will purchase or require the dedication of right-of-way or obtain easements for these future local roads as the affected properties are partitioned or subdivided. Because the future road locations are approximate, the actual platted and constructed location of these roads may vary somewhat from the locations depicted in Figure 9 and Figure 11 based on factors such as engineering, topography, drainage, and future property ownership and parcel configurations. Any significant variation from these approximate locations, as proposed by property developers, should be based on a demonstrable showing that the proposed road location will adequately serve both existing and potential development and provide safe and adequate connections to the existing road system.

Figure 9

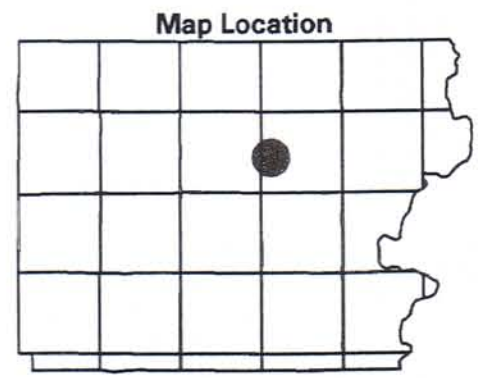
Existing & Proposed Road System North of Dallas

Areas Zoned for Acreage Residential Development

Preferred Alternative



Area to be considered for a future limited access collector from Ellendale Road to Webb Lane



Map Scale: 1" = 0.40 mi.

Legend

- FF - Farm Forest Zone
- Acreage Residential Zone (AR-5)
- Proposed Local & Collector Roads
- Existing Roads
- Taxlots

Figure 9, Page 95

DATE: 06/08/98
T7SR6W - T7SR6W



This map was produced from data stored in the Polk County Geographic database. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretations.

Figure 10

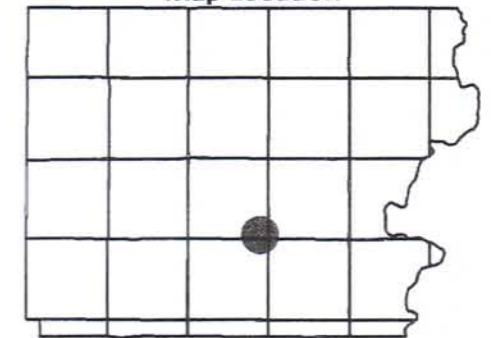
Existing & Proposed Road System South Dallas

Areas Zoned for Acreage Residential Development

Preferred Alternative



Map Location



Map Scale: 1" = 0.30 mi.

Legend

Acreage Residential Zone (AR-5)

Proposed Local & Collector Roads

Existing Roads

Taxlots

Figure 11, Page 99

DATE: 06/08/98
T7SR4W - T7SR3W



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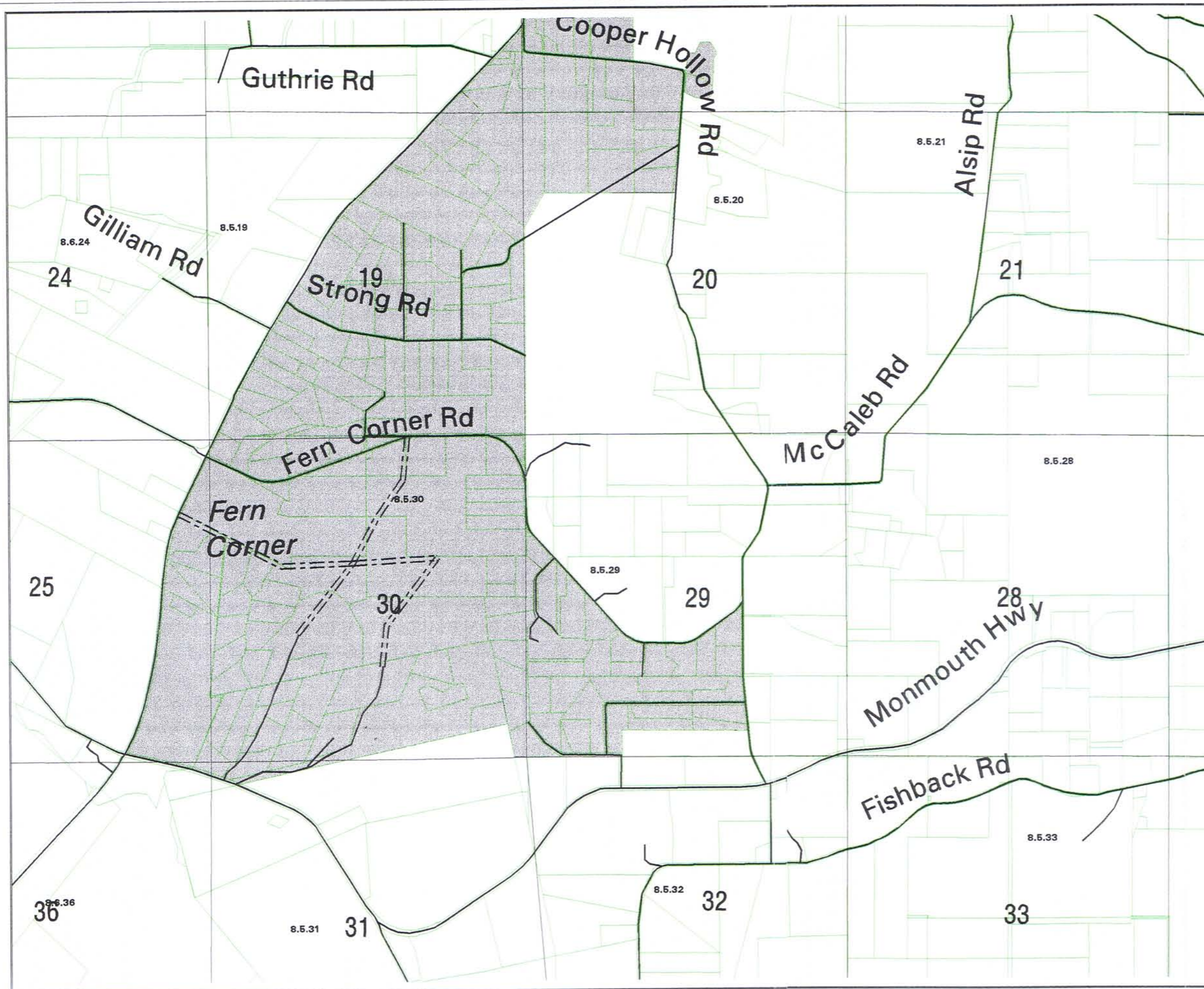


Figure 11

Existing & Proposed Road System West Salem

Areas Zoned for Acreage
Residential Development

Preferred Alternative



Map Location



Map Scale: 1" = 0.36 mi.

Legend

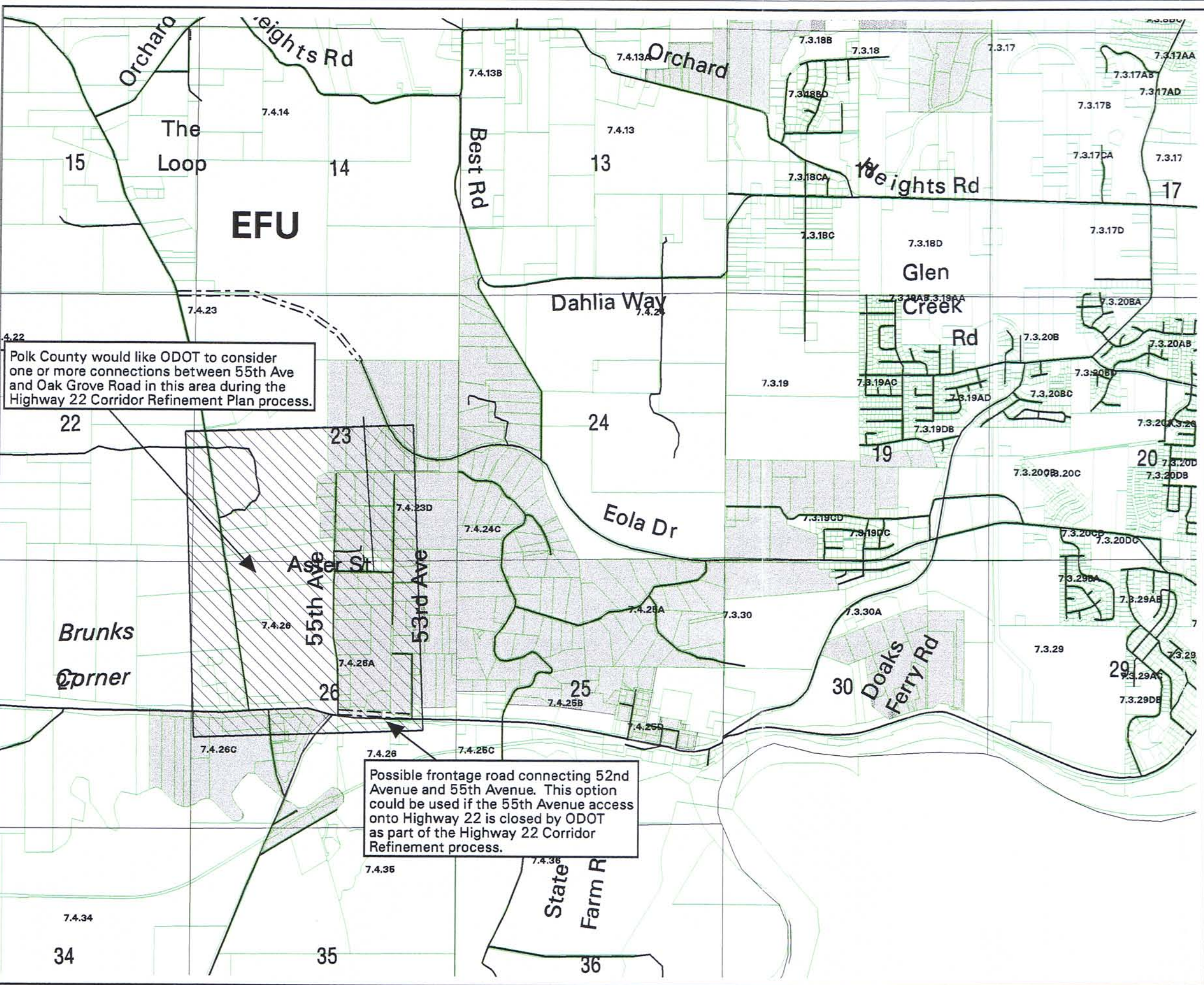
- EFU - Exclusive Farm Use Zone
- Acreage Residential Zone (AR-5)
- Emphasis Area
- Proposed Local & Collector Roads
- Existing Roads
- Taxlots

Figure 10, Page 97

DATE: 06/08/98
T79R4W - T79R3W



This map was produced from data stored in the Polk County Geographic database. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretations.



Polk County would like ODOT to consider one or more connections between 55th Ave and Oak Grove Road in this area during the Highway 22 Corridor Refinement Plan process.

Possible frontage road connecting 52nd Avenue and 55th Avenue. This option could be used if the 55th Avenue access onto Highway 22 is closed by ODOT as part of the Highway 22 Corridor Refinement process.

7.4.34

34

7.4.36

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7.4.36

36

Proposed System Improvements

This section contains a list of road intersection, bridge, and bikeway improvements planned for the next twenty years. The overall cost of the work is approximately \$27,057,000; however, most of this cost will be paid from state or federal programs, or are joint ventures with cities.

Also in this section are outstanding issues and further steps which need to be addressed as this document continues to mature in its development.

Facility Improvement Projects

Table 17 contains a list of road and intersection improvements, locations, action required, and estimated costs. All of the projects involving state highways are identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. With the exception of a portion of the Highway 99W and Clow Corner Road improvement project, these projects are funded using state and federal funds only. Additional road improvement projects involving County roads are also listed in the County's Five-Year Capital Improvements Plan. This plan is reviewed in March and April of each year during the County's budget development process and is then approved each year with the adoption of the County's operating budget.

Figure 12 shows those intersections and bridges scheduled for improvements during the present work program as well as projects identified in the STIP. Additional projects serving areas zoned for rural residential development will be designed and constructed as shown in Figures 9 through 11 as further development occurs.

Table 17
Polk County Road and Intersection
Improvement Projects

Road Name:	Highway 221 (Wallace Road)
Intersecting Road:	Orchard Heights Road to Doaks Ferry Road.
Action:	Widen Highway 221 from two to four travel lanes between Orchard Heights Road and Doaks Ferry Road. Add raised median.
Estimated Cost:	\$19,763,000
Remarks:	Identified in Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 1998.
Road Name:	Highway 51 (Monmouth Highway)
Intersecting Road:	Cooper Hollow Road
Action:	Realign and upgrade guardrail.
Estimated Cost:	\$157,000
Remarks:	Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 1999.
Road Name:	Highway 22

Intersecting Road:	Salt Creek and Church Road
Action:	Realign intersection. Construct left-turn refuge at Highway 22 and Salt Creek Road.
Estimated Cost:	\$549,000
Remarks:	Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 1999.
Road Name:	Highway 99W
Intersecting Road:	Clow Corner Road and Hoffman Road.
Action:	Add deceleration taper for right turn from Highway 99W to Clow Corner Road; add left turn lane on Clow Corner Road. Add signal at Hoffman Road intersection.
Estimated Cost:	\$125,000 (Cost to Polk County \$30,000)
Remarks:	Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 1999.
Road Name:	Highway 22
Intersecting Road:	Highway 223 (Kings Valley Highway)
Action:	Add left-turn lanes, beacon, illumination.
Estimated Cost:	\$619,000
Remarks:	Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 2000.
Road Name:	Fort Hill Road/Yamhill River Road
Intersecting Road:	Highway 18
Action:	Realign both the Fort Hill Road and Yamhill River Road connections to Highway 18 so that they align upon intersection with Highway 18 east of the store; add a center left turn lane on Highway 18; add a frontage road to the commerce area from Fort Hill Road.
Estimated Cost:	\$1,241,000
Remarks:	Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 2001.

Table 18 lists the bridge improvement projects to be undertaken in Polk County through the year 2001. All of these projects involve are identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Funding for these projects comes from the Highway Bridge Rehabilitation and Replacement (HBRR). The HBRR is a federal program which provides up to 80 percent of the funding for bridge improvement projects. The cost to Polk County for the projects listed below is approximately \$444,000.

Table 18
Polk County Bridge Improvement Projects

Road Name: State Farm Road
Crossing: Rickreall Creek
Bridge No.: 53C080
Action: Replace structure.
Estimated Cost: \$730,000
Remarks: Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 1999.

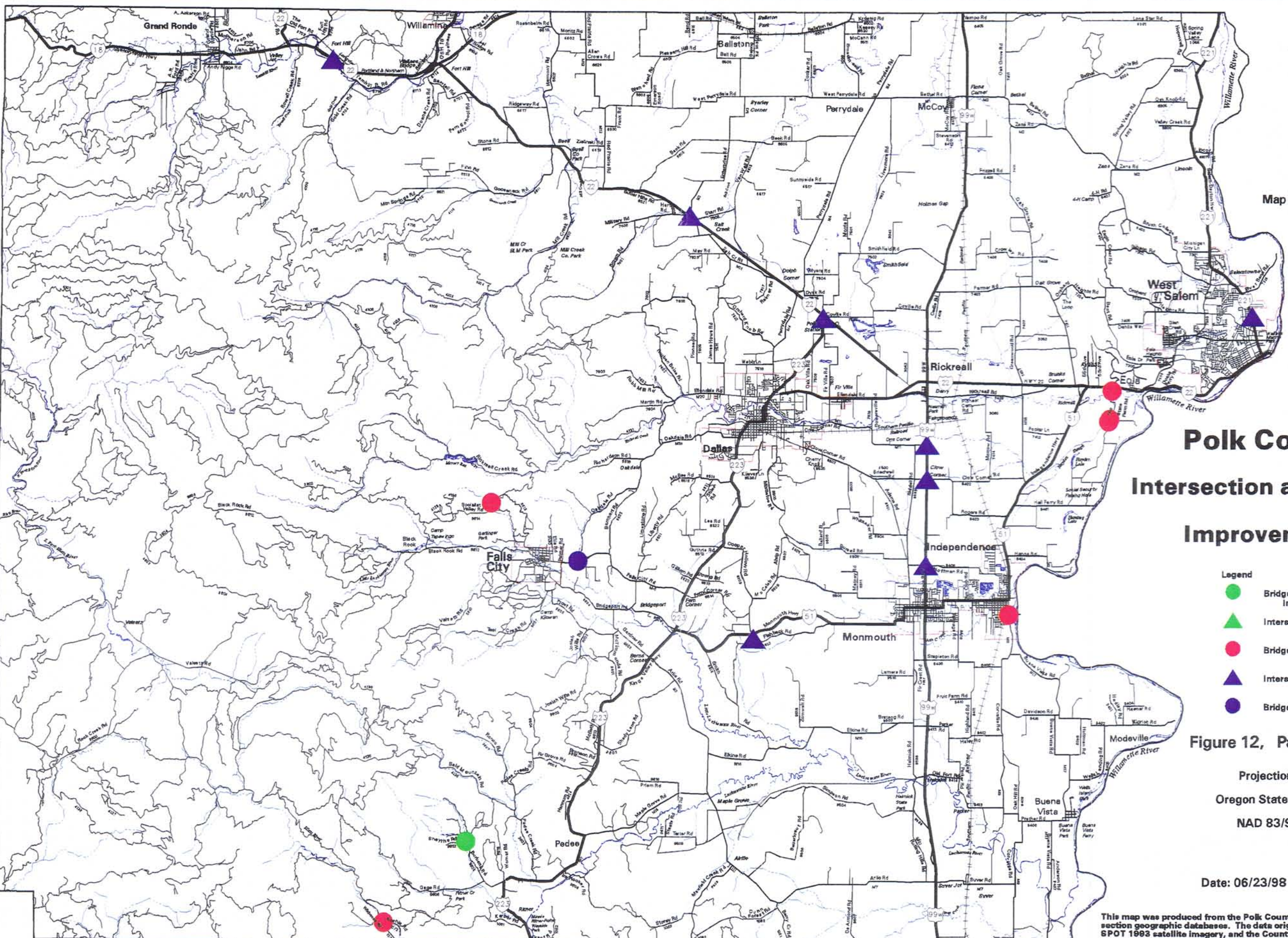
Road Name: State Farm Road
Crossing: Hayden Slough
Bridge No.: 53C081
Action: Replace structure.
Estimated Cost: \$482,000
Remarks: Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 2000.

Road Name: Wildwood Road
Crossing: Luckiamute River
Bridge No.: 53C140
Action: Replace structure.
Estimated Cost: \$650,000
Remarks: Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 2000.

Road Name: Socialist Valley Road
Crossing: Little Luckiamute River
Bridge No.: 53C112
Action: Replace structure.
Estimated Cost: \$436,000
Remarks: Identified in the Final Statewide Transportation Improvement Program (STIP) 1998-2001. Construction in 2001.

Road Name: Independence Bridge
Crossing: Willamette River
Action: Bridge repair.
Estimated Cost: \$2,000,000
Remarks: Marion and Polk County to share local costs. Cost to Polk County \$40,000. Construction in 2000-2001.

Figure 12
Intersection and Bridge Improvements



Map Scale 1 Inch = 2.5 Miles

Polk County Intersection and Bridge Improvements

- Legend**
- Bridge Improvement - County
in excess of \$50,000
 - ▲ Intersection Improvement - County
 - Bridge Improvement - HBRR
 - ▲ Intersection Improvement - County/State
 - Bridge Improvement - FAS

Figure 12, Page 105

Projection:
Oregon State Plane
NAD 83/91

Date: 06/23/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Table 19 lists the proposed bikeway system improvements within Polk County. **The Hoffman Road** bikeway improvement project is currently listed in the County’s Five-Year Capital Improvements Plan.

Table 19
Polk County Bikeway System Improvements

Road Name: Hoffman Road
Section: Riddell Road - Highway 99W
Length: 0.44 mi.
Action: Construct 6-foot-wide paved shoulder contiguous to each traffic lane
Remarks: Joint venture with city of Monmouth; \$80,000; FY 1998-1999.

Table 20 shows a list of “conceptual” bikeway, road, and intersection projects. The conceptual road and intersection projects include improvements along state highways which Polk County would like ODOT to consider for inclusion in future editions of the STIP. These projects are intended to improve safety and increase capacity on Highway 99W and Highway 22 which serve as the county’s principal arterials. Polk County will work with ODOT on any necessary studies related to these projects. It is anticipated that additional projects will be identified as part of the Highway 18 Corridor Refinement Plan process which is currently underway.

Table 20
Conceptual Bikeway, Road, and Intersection Projects

Road Name: Ellendale Road
Section: Reuben Boise Road - James Howe Road
Length: 1.03 mi.
Action: Construct 6-foot-wide paved shoulder contiguous to each traffic lane
Remarks: Possible joint venture with city of Dallas.

Road Name: Grand Ronde Road
Section: Yamhill County Line - Highway 18
Length: 1.22 mi.
Action: Construct 6-foot-wide paved shoulder contiguous to each traffic lane
Remarks: Possible joint venture with Grand Ronde Tribe.

Road Name: Highway 22
Section: Rosewood Street – Edgewater Avenue
Action: Add acceleration and deceleration lane extension at Capital Manor.

Road Name: Highway 22
Section: 52nd Avenue to Oak Grove Road
Action: Construct frontage road on each side of highway – on the north from 52nd Avenue to 55th Avenue and on the south from Highway 51 to near 52nd Avenue. Close 55th Avenue highway access and provide connection(s) from 55th Avenue to Oak Grove Road.

Road Name:	Highway 22
Intersection:	Greenwood Road
Action:	Construct overpass – no access.
Road Name:	Highway 51
Intersection:	Highway 22
Action:	Construct interchange.
Road Name:	Highway 99/Highway 22
Action:	Construct interchange.
Road Name:	Highway 22
Intersection:	Highway 223 (Dallas cutoff)
Action:	Construct elevated left turn lane (overpass).
Road Name:	Highway 22
Intersection:	James Howe Road and Van Well Road
Action:	Realign road – restrict access at Salt Creek Road.

Outstanding Actions, Next Steps, and Future Plan Refinements

The items contained in **Table 21** are either those issues which require further evaluation or actions, follow-up steps, or further refinements to the “living” document. This plan has undertaken several very important tasks beginning with establishing goals and policies for Polk County’s transportation system, and concluding with methods of funding various work. However, there are still items which must be completed to implement, simplify, or further improve the plan. The TPR establishes five years as the intervals during which the plan must be reviewed; however, additional amendments may be added to this document between these intervals. Items identified during the public involvement process which require further study (see Table 22 - Appendix G) should be reviewed on an ongoing basis and grant funding to conduct these studies should be sought from sources such as the Transportation and Growth Management (TGM) Program as these funds become available.

Table 21
Polk County Transportation Systems Plan
Outstanding Actions, Steps, or Refinements

Number	Actions, Steps, and Refinements	Year Completed
1.	Formalize road classification by letter to ODOT	1998
2.	Amend subdivision and partition ordinance to ensure consistency with County Road Standards	1998
3.	Adopt City of Salem TSP for West Salem	1998
4.	Coordinate with Marion County, DLCD, City of Salem, and SKATS on population projections for the Salem urban area	1998
5.	Complete Intergovernmental Agreements with cities regarding road/bikeway standards, access management, and transfer of road jurisdiction	1999
6.	Adopt Willamina-Grand Ronde (Hwy 18) Corridor Refinement Plan	1999
7.	Review TSP for consistency with TSPs adopted by cities; Amend as necessary.	1999
8.	Adopt Highway 22 Transportation Improvement and Management Element of the Corridor Plan	2000
9.	Complete coordination with City of Dallas for new collector north of the city	2000
10.	Coordinate with Office of Economic Analysis, Marion County, SKATS, DLCD, and local cities on revised population and employment forecasts	2000
11.	Begin coordination meetings for sub-regional paratransit service	2001
12.	Adopt Highway 22 Corridor Refinement Plan between bridges and Oak Grove Road	2001
13.	Compare census data against population and employment estimates	2002
14.	Conduct LOS calculations on critical urban and rural arterials and collectors	2002
15.	Request Corridor Plans for Highway 99W	2002
16.	Verify road inventory	2003
17.	Review need for hazardous materials and truck routes	2003
18.	Review TSP for progress in meeting TPR; revise as necessary	2004
19.	Synchronize road names and numbers	2005
20.	Complete operational plan for vanpool or commuter transit service	2005
21.	Verify need for each Resource Road to remain on listing	2006
22.	Initiate vanpool action or commuter transit service from Dallas to Salem	2006
23.	Complete GPS rights-of-way project	2007
24.	Conduct sidewalk inventory	2007

Number	Actions, Steps, and Refinements	Year Completed
25.	Review need for hazardous materials and truck routes	2007
26.	Review TSP for progress in meeting TPR; revise as necessary	2009
27.	Review county access permit requirements/procedures	2009
28.	Evaluate needs for bike/pedestrian crossing improvements near schools in rural community centers	2010
29.	Review need for each road under Resource Road to remain on listing	2011
30.	Review need for hazardous materials and truck routes	2012
31.	Review TSP for progress in meeting TPR; revise as necessary	2014

Finance Plan

This portion of the TSP describes methods available for funding proposed projects. Some projects, such as county roads in urban growth boundaries, will require funding from more than one jurisdiction, even when only one jurisdiction has responsibility for and authority over the improvement being made. This also can result when a county wishes a project to be constructed by the state and joint funding can enhance the probability of the work being done. This philosophy supports the concept that those who generate the need for improvements should either pay or share in the costs. Developers are usually expected to share the expenses of new construction, either through right-of-way dedication or roadway construction, or both. It is to the county's advantage to participate in funding projects which directly or indirectly benefit its residents. This portion of the plan will address these possibilities.

Oregon Highway Fund

In fiscal year 1996-1997, the Oregon Highway Fund accounted for approximately 75 percent of the annual revenue of the Public Works Department. The fund is comprised of state-imposed transportation user fees in the form of fuel taxes, weight mile taxes on trucks, and vehicle registration fees. Approximately 24 percent of the fund is shared with counties while 16 percent is shared with cities. These shared funds are distributed to individual counties based on their share of vehicle registration, and to individual cities based on their population. The remainder of the public works funds comes from charges for services such as work on vehicles, intergovernmental revenues, and others. These latter sources are variable and unpredictable over the long term.

The funds the county receives are typically exhausted accomplishing ongoing maintenance, repair, and minor construction projects. The fiscal year 1996-1997 budget shows that the normal operations of all public works departments would use the entire highway fund allotment, and any construction work, including major pavement overlays, will require another funding source.

Systems Development Charges (SDCs)

ORS 223.297 requires local governments who impose SDCs to:

- Complete a plan that lists the capital improvements that can be funded by SDC fees and the estimated cost and timing of each improvement. This TSP meets that requirement.
- Limit the expenditure of SDC fees/charges to those capital improvement that are required to increase capacity because of uses generated by current or projected developments.
- Place the SDCs collected in a separate account and provide an annual accounting of revenues

received and projects that were funded.

- Use a resolution or ordinance to establish the methodology for calculating the charge and make it available for public inspection.

Local Improvement Districts (LIDs)

Another county option is formation of a local improvement district for a defined area in the study. This can be initiated by the property owners or by the county, subject to remonstrance (protests). Polk County's Cost Share Program, which is presently not being used because of budget constraints, is similar to an LID. LIDs can be used when the benefit of the work is essentially confined to one area. With the LID, the cost of a project is distributed to each property according to the benefit that property receives. Since the work proposed in this plan accommodates increases in traffic from future development, it may be difficult to determine benefit to properties that are not yet developing. The cost distributed becomes an assessment or lien against the property. It can be paid in cash or through assessment financing.

Exactions (Conditions of Development)

System improvements can be required as a condition of development. The process requires the county to demonstrate how the improvements required are necessary to accommodate that impact generated by the new development.

Miscellaneous

Some economic development programs also offer a source of funds. The Immediate Opportunity Grant program managed by ODOT provides a maximum of \$500,000 for public road work associated with an economic development related project of regional significance, provided the underlying project creates primary employment. Additionally, although lesser amounts will be considered, the grantee should provide an equal local match.

Another economic development related source of funds is the Special Works Public Works Fund. This fund provides grants and loans for public work that supports private projects that result in permanent job creation or job retention. Loans are emphasized in this program and are available up to \$11 million for a maximum of 25 years, unless the projects life is shorter. The maximum grant is for \$500,000, but may not exceed 85 percent of the project cost.

The Oregon Transportation Infrastructure Bank (OTIB) provides loans for highway and transit capital project. Applications are due in early December. Last year, Marion County received \$3.2 million through the program, and the city of Independence is currently seeking approval for \$735,000.

STF, Title XIX, Section 5310, Section 5311, and grants under ODOT's Community Transportation grant program are available for public transportation. The Community Transportation Program will provide funds for operations as well as capital purchases. The award cycle for the CTP is aligned with the STIP schedule. Some of these funds are administered by or need to be coordinated with the Salem Area Mass Transit District.

Statewide, most bicycle and pedestrian improvements are made using State Highway Funds as required by ORS 366.514. This statute requires that in any given fiscal year, the amount expended to provide walkways and bikeways must be a minimum of one percent of the state highway funds received by the county. However, this amount may be credited to a reserve fund provided they are expended within a period not to exceed ten years.

Beyond the one percent funding requirement is the section of the statute which requires walkways and bikeways to be provided whenever a road is constructed, reconstructed, or relocated. Projects where the entire depth of the road bed is replaced are usually considered reconstruction projects. Footpaths and trails are not required to be established under this statute: (1) where the establishment of such paths and trails would be contrary to public safety; (2) if the cost of establishing such paths and trails would be excessively disproportionate to the need or probable use; or (3) where sparse population, other available ways or other factors indicate an absence of any need for such paths and trails.

In 1980, a constitutional amendment prohibited using highway funds in parks and recreational areas. A subsequent Oregon Supreme Court opinion does, however, allow the use of the funds as long as the construction occurs within the road right-of-way.

For bicycle and pedestrian projects, there are several programs for funding in addition to the many described as part of gas taxes. The small-scale Urban Pedestrian and Bicycle Improvements on State Highways (SUPI) is for projects less than \$100,000 with no right-of-way or environmental impacts. The local grant program is an 80 percent state/20 percent local share on projects where the state share is less than \$100,000. Two hundred thousand is available each year for projects costing less than \$35,000. There are several other programs available with details on these and the ones above readily available from ODOT's Bicycle and Pedestrian Program.

Federal grants for airport capital improvements are available through the Department of Transportation, Federal Aviation Administration's Airport Improvement Program (AIP). The AIP grant program provides funding on a 90 percent FAA, 10 percent Airport Sponsor/Owner participation basis for eligible improvements at airports which have been designated as part of the National Priority Integrated Airport System. Proposed projects are submitted to the FAA through a grant pre-application and review process. Proposed work items must be listed on an FAA-approved Airport Layout Plan in order to be eligible for consideration. Grants for general aviation airports can range from a minimum of \$25,000 to over \$1,000,000 dependent upon the scope of the project.

State

The above methods of financing are those used by local, city, and county jurisdictions. The state has fewer options and relies almost exclusively on gas tax, vehicle registration fees, and federal transportation programs for funding projects. However, the state has begun to enhance its funding by requiring contributions from local jurisdictions or cost sharing when developments have significant traffic impacts. The latter method was used for improvements on U.S. Highway 101 near Lincoln City and for Highway 18 near Valley Junction. These cost sharing techniques may become more prevalent if federal funds decrease in the future.

The federal funds presently available under the Intermodal Surface Transportation Efficiency Act (ISTEA) 1991 terminated in 1997 but were extended until a new funding bill can be authorized. It remains to be seen whether a new bill will be more or less flexible, or whether funds more or less funds are available. ISTEA is more flexible for the state than the previous program since more authority was delegated. The perceived nationwide success of this approach will help determine if restrictions are loosened further or tightened.

Many of these uncertainties also prevail at the state level. Historically, increases in state and gas taxes generally do not provide more than a catch-up for inflationary pressures on the cost of construction or to provide a means to correct deferred maintenance. In general, it is expected the state will continue its course of requiring some contributions or cost sharing before significant work such as interchanges or bridges are constructed.

Polk County would like to see ODOT take a nationwide leadership role to revise the federal project requirements for roads and bridges. The county believes many of the standards are excessive for local, rural road systems. This role would begin with ODOT's review and revision of its interpretation of the federal requirements by determining how other states interpret the same requirements.

Budget Information

From FY 1990 through FY 1996, Polk County Public Works total expenses have averaged approximately \$2.65 million. The adopted budget for FY 96-97 and the proposed budget for FY 97-98 shows Publics Works received approximately \$900,000 additional each year with the bulk of the increase intended for construction related work. Although in past years, the fund was partially supported by general fund revenues, the department as for the last several years essentially relied on state highway funds dedicated to roads. It is anticipated that funds for this work will need to come from sources other than state highway funds.

As previously mentioned, the County Mental Health Program expends funds to support paratransit transportation for its clients. In FY 1996-1997, client transportation expenses were slightly over \$840,000 to serve 2,750 individuals. This was an average of nearly \$66 per client and \$7 per ride.

Appendix A - Definitions and Acronyms

Access Management: Measures regulating access to streets, roads, and highways from public streets or roads and private driveways. Measures may include but are not limited to restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and the use of physical controls, such as signals and channelization including raised medians to reduce impacts of approach road traffic on the main facility. (Ref. OAR 660-12-005)

Arterial Street: A street that is the primary route for traffic within and through the community.

Average Daily Traffic (ADT): The annual average two-way daily traffic volume. It represents the total traffic for the year, divided by 365.

Bike Lane: A portion of a roadway which has been designated by striping and pavement marking for the preferential or exclusive use of bicyclists.

Bikeway: A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds: shared roadway, shoulder bikeway, bike lane, or bicycle boulevard. Another type of facility is separated from the roadway: multi-use path.

Collector: A street that allows traffic within an area or neighborhood to connect to the arterial system.

Complementary Paratransit: Comparable transportation service required by the ADA for individuals with disabilities who are unable to use fixed-route systems.

Corridor Plan: A long-range plan for managing and improving transportation facilities and serves to meet needs for moving people and goods.

Demand Management: Actions which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional road capacity. Methods may include but are not limited to the use of alternative modes, ridesharing and vanpool programs, and trip reduction ordinances. (Ref. OAR 660-12-005)

Demand - Response Service: Non-fixed route service utilizing vans or buses with passengers boarding and alighting at prearranged times at any location within the system's service area. Sometimes referred to as "dial-a-ride," it is designed to carry passengers from their origins to specific locations on an immediate basis or advanced reservation basis.

Divided Highway: A two-way highway on which traffic traveling in opposite directions is physically separated by a median.

Elderly: People 60 years of age and over.

Frontage Road (Local Service Road): A local street or road located parallel to an arterial highway for service to abutting properties for the purpose of controlling access to the arterial highway.

FRA: Federal Railroad Administration

FTA: Federal Transit Administration, formerly Urban Mass Transit Administration (UMTA). A federal agency under USDOT charged with carrying out the transit provisions of the ISTEA of 1991.

Heavy Rail: An electric railway with the capacity of a "heavy volume" of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, and high platform loading. Also known as "subway," elevated (railway)", etc.

Interchange: A facility that separates intersecting roadways and provides directional ramps for access movements between the roadways. The structure and the ramps are considered part of the interchange.

Inter-city; inter-county: Between or among cities, counties.

ISTEA: The federally enacted Intermodal Surface Transportation Efficiency Act of 1991 which provided authorizations for highway, highway safety, and mass transportation for the following six years.

Level of Service: A qualitative measure of the effect of a number of factors on transportation service including speed and travel time, traffic interruptions, freedom of movement, safety, driving comfort, and convenience.

Level of Service (LOS) Criteria:

Service Level A: Relatively free flow of traffic with some stops at signalized or stop sign controlled intersection. Average speeds would be at least 30 miles per hour.

Service Level B: Stable traffic flow with slight delays at signalized or stop sign controlled intersections. Average speeds would vary between 25 to 30 miles per hour.

Service Level C: Stable traffic flow but with delays at signalized or stop sign controlled intersections. Delays are greater than at level B but still acceptable to the motorist. The average speeds would vary between 20 and 25 miles per hour.

Service Level D: Traffic flow would approach unstable operating conditions. Delays at signalized or stop sign controlled intersections would be tolerable and could include waiting through several signal cycles for motorists. The average speed would be vary between 15 and 20

miles per hour.

Service Level E: Traffic flow would be unstable with congestion and intolerable delays to motorists. The average speed would be approximately 10 to 15 miles per hour.

Service Level F: Traffic flow would be forced and jammed with stop and go operating conditions and intolerable delays. The average speed would be less than 10 miles per hour.

Light Rail: An electric railway with a "light volume" traffic capacity, operated on city streets, semi-exclusive rights-of-way, or exclusive rights-of-way and may have high or low platform boarding and single or multi-car trains.

Local: A street intended primarily for access to abutting properties, but protected from through traffic. Local streets entail all those not otherwise defined as arterials or collectors. While connectivity is encouraged for all streets, through traffic movement is not the intended purpose of a minor street.

Local Access Road (aka Public Use Road): A road dedicated to public use, and ownership has been accepted by the county, but without obligation, responsibility, or agreement for improvement or maintenance.

Modes of Transportation: Mass transit, air, water, pipeline, rail, highways, bicycle, and pedestrian. The terms "modes," "mode connectivity," and "intermodal" refer to these transportation means.

Multi-Use Path: A path physically separated from motor vehicle traffic by an open space or barrier and either within a highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers.

Paratransit: Flexible transportation service which are operated publicly or privately, are distinct from conventional fixed-route, fixed-schedule, and can be operated on the existing highway and street system, generally with low capacity vehicles. Examples include shared-ride taxis and dial-a-ride, and other demand-responsive type services.

Public Use Road: See Local Access Road.

Rural: Any area not included in a business, industrial, or residential zone of moderate or high density, whether or not it is within the boundaries of a municipality.

Shared Roadway: A type of bikeway where bicyclists and motor vehicles share a travel lane.

Shoulder Bikeway (aka Shared Shoulder): A type of bikeway where bicyclists travel on a paved shoulder.

STF: The Special Transportation Fund for Elderly and Disabled is a dedicated resource to support special transportation service. The fund is administered by ODOT and funded by

Oregon cigarette tax revenues. Three-fourths of the dedicated revenue is distributed by population formula to counties of transportation districts through the formula program (STF). One-fourth is discretionary and awarded on a competitive basis through the Community Transportation Program.

Section 9: An ISTEA-FTA law providing grant funding for large transit districts in urban areas with populations of 50,000 or more.

Section 5310 (Formerly referred to as Section 16(b)(2)): Elderly and Disabled Capital Assistance Program, an ISTEA-FTA law providing capital funds for nonprofit organizations and certain local governments.

Section 5311 (Formerly referred to as Section 18): Small City and Rural Area Transit Assistance Program, an ISTEA-FTA law providing funds for public transportation service in non-urban areas.

Section 504: Nondiscrimination against persons with disabilities as a condition of federal funding.

Small Transit Vehicle: Vehicle smaller than the 35 or 40 foot standard transit bus.

SOV: Single occupancy vehicle.

TPR: The state Transportation Planning Rule contained in Oregon's Administrative Rule, Chapter 660, Division 12, which implements the statewide planning goal 12 (Transportation).

Title XIX: State Medicaid Program funds.

Transportation Disadvantaged: A term used to denote individuals without the ability or capability to use personal conveyances to travel. For example, these individuals may be the working poor, students, or physically or mentally challenged.

UGB: Urban Growth Boundary. A boundary adopted by both the city and the county which includes land available for future urban development and which separates urban land uses from rural land uses.

Urban: Any territory within an incorporated area or with frontage on a highway which is at least 50 percent built-up with structures devoted to business, industry, or residences for a distance of a quarter mile or more.

Urbanizing: Areas within an urban growth boundary that are undeveloped.

Van: A vehicle which has a typical seating capacity of five to 15 passengers and is classified as a van by vehicle manufacturers. The seating capacity of modified vans is approximately nine to 18 passengers.

V/C: Road traffic volume divided by the road's capacity. The resulting number is used to judge levels of service.

VMT: Vehicle miles of travel.

Appendix B - Document Listing

	<u>Publication Date</u>
State of Oregon	
Aerial Photographs	October 1995
Directory of Public Transportation Services	January 1996
Highway Compatibility Guidelines	June 1987
Independence State Airport, Airport Layout Plan Report	December 1997 draft ODOT, W&H Pacific, Aron Traegre & Assoc.
Interim Corridor Strategy, Portland to Lincoln City Corridor March 1997	ODOT, CH2M Hill, Jeanne Lawson, Assoc.
Interim Corridor Strategy, Willamina to Salem Corridor	June 1996 ODOT, W & H Pacific, Jeanne Lawson, Assoc.
ODOT Potential Development Analysis	1994
Oregon Administrative Rules, Chapter 660, Division 6	May 1994
Oregon Administrative Rules, Chapter 660, Division 12	December 1995
Oregon Administrative Rules, Chapter 660, Division 33	August 1994
Oregon Benchmarks	January 1997
Oregon Bicycle and Pedestrian Plan	June 1995
Oregon Continuous Aviation System Plan	1978 - varied
1991 Oregon Highway Plan	June 1991
Oregon Inter-city Passenger Times-tables	Fall, 1996
Oregon Public Transportation Plan	April 1997
Oregon Rail Freight Plan	August 1994
Oregon Revised Statutes, Chapter 215	1997
Oregon Transportation Plan	September 1992
State Agency Coordination Program	December 1990
Final Statewide Transportation Improvement Program 1998-2001	December 1997

Traffic Volume Tables	1975, 1980, 1985, 1990, 1995, 1992, 1993, 1994, 1995, 1996
Transportation System Planning Guidelines	August 1995
Willamette Valley Transportation Strategy- Phase I report:	May 1995

City of Dallas

Policy Regarding Development Inside the Urban Growth Boundary	April 1989
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City of Independence

Independence Transportation System Plan (Draft)	April 1998
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City of Monmouth

Monmouth Transportation System Plan	October 1997
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City of Salem

Salem Transportation System Plan (Council Endorsed Draft)	November 1997
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City of Willamina

Willamina Transportation System Plan	October 1997
Willamina Comprehensive Plan	1987

Yamhill County

Yamhill County Road Management Plan	February 1992
Yamhill County Comprehensive Plan, 1974 with addendum	February 1978
Yamhill County Transportation System Plan	March 1996
Yamhill County Zoning Map	September 1992
Aerial Maps	September 1992
Property Maps	Varied

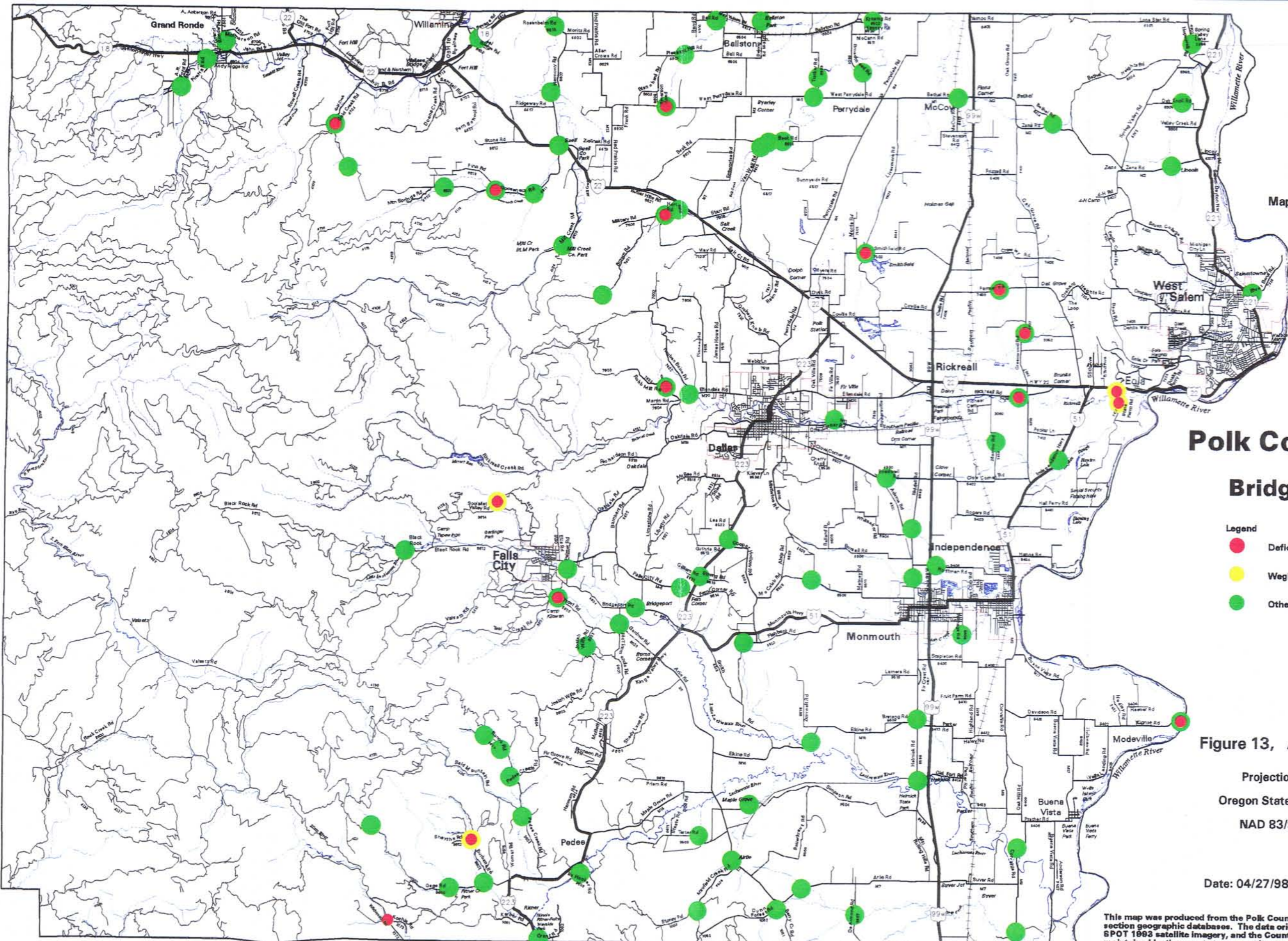
Polk County

Growth Management Agreement - Polk County and City of Monmouth		July 1993
Intergovernmental Agreement between Polk County and the City of Independence regarding the Urban Growth Boundary and Management of the Urbanizable Area		February 1995
Intergovernmental Agreement between City of Salem and Polk County regarding the Urban Growth Boundary and management of the Urbanized Area		September 1991
Intergovernmental Agreement between City of Willamina and Polk County regarding the Urban Growth Boundary and management of the Urbanized Area		September 1991
Intergovernmental Agreement between Polk County and Mid-Willamette Valley Council of Governments, Transportation Planning Services, Amendments 1 & 2		May 1996 December 1996 June 1997
Ordinance #176 - Intergovernmental Agreement regarding urban services in Polk County within the Falls City Urban Growth Boundary		June 1977
Polk County Comprehensive Plan Update		1995
Polk County Comprehensive Plan		1978
Polk County Public Transportation Providers and Commuting Information		1996

Miscellaneous

Advanced Public Transportation Systems: The State of the Art, Update '94	USDOT/FTA	January 1994
Assessment of Computer Dispatch Technology in the Paratransit Industry	USDOT/FTA	March 1992
California Smart Traveler System	USDOT/FTA	February 1992
1990 Census, Transportation Data	USDOT	1990
Implementing Effective Travel Demand Management Measures	USDOT/FHA	September 1993
Long-Range Transit Service Analysis	Salem Area Mass Transit District	August 1995
Mobility Management & Market Oriented Local Transportation	USDOT/FTA	March 1991

1994 Origin & Destination Surveys	SKATS	May 1995
Portland State Population Projections		1995
Regional Transportation Systems Plan, 1996 Update	Salem-Keizer Area Transportation Study (SKATS)	1996
Regional Public Transportation System Element	SKATS	January 1996
Transit Planning and Research Programs	USDOT/FTA	March 1996
Transportation Services, Utilization and Needs of the Elderly in Non-Urban Areas	USDOT	December 1994
Yamhill Community Action Program Bus Schedules (YAMCO & LINK)	YCAP	1994



Map Scale 1 Inch = 2.5 Miles



Polk County Bridges

- Legend**
- Deficient Bridge
 - Weight Limited Bridge
 - Other (Satisfactory Bridge & Culverts)

Figure 13, Appendix "B"

Projection:
Oregon State Plane
NAD 83/91

Date: 04/27/98



This map was produced from the Polk County roads, water, railroad, and section geographic databases. The data originally came from USGS quad maps, SPOT 1993 satellite imagery, and the County Road Index Map. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretation.

Appendix C - Inventory

Transit Providers

Dallas

DHR - VOLUNTEER PROGRAM

POLK COUNTY-SALEM-PORTLAND-CORVALLIS-OTHER

Contact: Connie Hyatt (503) 623-4366/(541) 967-2094

Funding: Title XIX(Medicaid/OR.) Health Plan)/Volunteer Drivers

- DEPT. OF HUMAN RESOURCES CLIENTS ONLY(ALL PROGRAMS)

One seven-passenger minivan (located in Independence)

Two state autos

22,350 miles

WORK FORCE NW

POLK COUNTY- MARION COUNTY

Contact: Win Priest (503) 623-9710

Funding: County Mental Health Contract(State/Fed); User Fee;

Vocational Rehab Funds

- DISABLED CLIENTS

One 15-passenger bus

One 8-passenger van

Two station wagons

34 Developmentally Disabled

20 Vocational Rehab

100,000 miles, 1500 Trips

GOODWILL INDUSTRIES

DALLAS

Contact: Heather Blodgett (503) 623-8675

Funding: County Mental Health Contract

- DISABLED CLIENTS

One 15-passenger bus

1 client

DALLAS SENIOR CENTER

DALLAS/DAY OUTINGS

Contact: (503) 623-8554

Funding: Fund Raisers & Donations

- MEMBERS

One 15-passenger bus

Limited medical trips

Monmouth-Independence

RON WILSON CENTER

POLK COUNTY- SALEM

Contact: Paul Steed (503) 838-3976

Funding: STF(\$3K)/Polk County Mental Health

- DISABLED CLIENTS, BUT AVAILABLE TO SENIORS

Two 7-passenger minivans

One 12-passenger van with lift

65 Clients (29,964 client trips)

POLK COMMUNITY LIVING

POLK COUNTY-MARION COUNTY

Contact: Steve Kessler (503) 838-2403

Funding: Polk County Mental Health Contract

- DISABLED CLIENTS

One 18-passenger bus

One 16-passenger van with wheel chair lift

Six minivans

Six autos

22,220 client trips

ST. PATRICK CATHOLIC CHURCH

POLK COUNTY-MARION COUNTY-PORTLAND

(Coverage not Limited)

Contact: Elana Pena (503) 838-1242

Funding: Polk County, Donations, Volunteers

- OPEN TO GENERAL PUBLIC

One 7-passenger van

MONMOUTH SENIOR CITIZEN CENTER

MONMOUTH/DAY OUTINGS

Contact: City (503) 838-5678

Funding: City, User Mileage Fee(\$0.35/mi)

- MEMBERS

One 15-passenger bus

Also used for homebound book deliveries

Willamina

YAMHILL COUNTY(YAMCO) BUS

(AKA YCAP)

WILLAMINA-SHERIDAN-MCMINNVILLE

Contact: Jay Lynch (503) 472-0457

Funding: Levy, STF, Fares, State/Fed (1994-\$183,700)

- FIXED ROUTE/DIAL-A-RIDE

One 10-passenger bus with wheel chair lift

NOTE: YAMCO operates a fixed route from Willamina to Sheridan to McMinnville on Mondays and Thursdays on a morning (Depart Willamina 8:45 a.m., Arrive McMinnville 9:30 a.m.) and an afternoon (Depart. McMinnville 2:15 p.m., Arrive. Willamina 3:00 p.m.) run. On the same days, from 10:10 a.m. to 1:35 p.m., YAMCO runs between Sheridan and Willamina on a dial-a-ride, door-to-door service.

Amity

MID-VALLEY REHABILITATION CORP.

POLK COUNTY-YAMHILL COUNTY-MARION COUNTY

Contact: David Wiegen (503) 835-2971

Funding: STF, 16(B)(2)

- DISABLED CLIENTS

Seven 19-passenger buses

Numerous other vehicles

Serves three clients for transportation

Salem

CHERRIOTS

SALEM-KEIZER

Contact: John Whittington (503) 588-2885

Funding: Fares, Local, State, Federal, STF, Ads

- **FIXED ROUTE**

Fifty 36- to 44-passenger buses (37 wheelchair)

Served 430,000 passengers in 1995

SHANGRI-LA CORP.

SPRUCE VILLA, INC.

GARTEN FOUNDATION

CATHOLIC COMMUNITY SERVICES

SUNNY OAKS

PRIMARILY SALEM

Contacts: Helen Honey (503) 581-1732

Anson Bell (503) 370-8397

Emil Graziani (503) 581-4472

James Seymour (503) 390-2600

Vicky Harbaugh (503) 370-7973

Funding: Grants for Vehicle Purchase 16(B)(2)

- **CLIENTS ONLY**

52+ Vehicles (Primarily Vans)

363+ Clients

OREGON HOUSING & ASSOCIATED SERVICES

(AKA WHEELS)

SALEM, MARION & POLK COUNTIES

Contact: Donna Wickman (503) 585-6193

Funding: STF, S18, Title XIX, 16(B)(2)*

(Open to General Public, but primarily used by Seniors or Disabled)

- **DIAL-A-RIDE**

- **SCHEDULED TRIPS**

Hubbard & Aurora to Woodburn (Mon.)

Silverton & Mt. Angel to Salem (Tues.)

Stayton, Aumsville, & Sublimity to Salem

Woodburn to Salem (Wed.)

- **TAXI-TICKET (SILVERTON ONLY)**

Ten 18-22 passenger buses (All wheelchair)

One mini-van for Portland medical trips

100,000 Trips- All Programs

* Passes through certain funds to many other providers

Salem - Other

GREYHOUND

- **FIXED ROUTE**
Eight buses daily going south
Eight buses daily going north

AMTRAK

- **FIXED ROUTE**
Rail north and south
Three buses daily going south
Three buses daily going north

TAXI

- Salem-Keizer Yellow Cab: 20 vehicles
- Silver Cab: 9 vehicles

HUT AIRPORT SHUTTLE

- **SEMI-FIXED ROUTE (PORTLAND AIRPORT)**
Five 17-passenger buses
12 trips per day

SOUTH METRO AREA RAPID TRANSIT

- **WILSONVILLE TO SALEM**
Express bus
2 round trips in a.m. and p.m.

VALLEY SHUTTLE

- **TRAVEL TO PORTLAND AIRPORT & RETURN**
STATEWIDE CHARTER
Several sized vehicles

CHARTER BUS

Commuters

- **FIXED ROUTE**
Betty's To & Fro - Salem to Eugene
One 46-passenger bus
Betty's To & Fro - Salem to Corvallis/Albany
Evergreen Stage Lines to Portland
One 47-passenger bus
Two 14-passenger vans
-

Appendix D - Ordinance Changes

The following amendments are proposed to the Polk County Zoning Ordinance and the Polk County Subdivision and Partition Ordinance to implement the provisions of the Polk County Transportation Systems Plan (TSP). Adoption of these amendments is proceeding concurrently with adoption of the TSP. These implementing ordinances would amend Chapter 110 (General Provisions and Definitions), Chapter 111 (Administration and Procedures) and Chapter 112 (Development Standards) of the Polk County Zoning Ordinance and Chapter 91 (Subdivisions and Partitions) of the Polk County Code.

Language to be inserted is shown in **bold** and underlined. Language to be deleted is ~~struck through~~.

Amendments to Chapter 91 of the Polk County Code - Subdivision and Partitions.

The following subsections would be added to Section 91.210:

91.210 DEFINITIONS.

(2) **"Access." The connection of any existing or proposed road or bike facility to a county or state road; for example, a private driveway or public road, for ingress or egress to property.**

(45) "Arterial Street (**Road**)." ~~Any street designated as such on an official map adopted in conjunction with a comprehensive plan as allowed under ORS Chapter 215.~~

A roadway intended to carry large volumes of traffic (typically 1,000 ADT or more outside of an urban growth boundary) and connect major traffic generators, cities, recreational areas, and major segments of transportation networks. High capacity is achieved through allowing higher speed, limited access, wider roadway and movement preference at intersections with lesser standard roadways.

"Principal Arterials" are major urban and rural highways connecting communities towns, and cities. The principal arterial provides for through traffic movement and distribution to lower order roadways.

"Minor Arterials" connect areas of principal traffic generation to major

urban and rural highways. The minor arterial network provides for through traffic movement to the major arterials and distribution into the network of collector and local streets.

- (89) "Collector Street (**Road**)."
~~Any street designated as such on an official map adopted in conjunction with a comprehensive plan as allowed under ORS Chapter 215.~~

A roadway intended to carry intermediate volumes of traffic (typically 500-1,500 ADT outside of an urban growth boundary) and collect and distribute traffic from local streets to arterial, state highways or small population centers.

“Major Collectors” carry local traffic between neighborhood areas to arterial facilities. The major collector provides access from minor collectors to community services and to other neighborhoods within, or immediately adjacent to, urban areas.

“Minor Collectors” serve as links between the local street system and the higher order roadways. Minor collectors carry traffic between minor traffic generators, such as neighborhood shopping and community centers and schools.

- (15) **"Frontage Road." Also known as a “Marginal Access Road”. A service road generally parallel and adjacent to an arterial, and which provides access to abutting properties, but protected from through traffic.**

- (33) **"Reverse Frontage Lot." A lot having frontage on two parallel or approximately parallel roads, where the rear of the lot, or structure on the lot faces an arterial.**

- (35) **“Roadway.” The general term used to describe the strip of land, structures, surfacing, and shoulders over which motorized vehicles travel. The roadway includes the area between the edges of shoulder or curb and the area two feet beyond the edge of shoulder or curb.**

- (36) **“Rural.” Those areas within Polk County which lie outside an adopted Urban Growth Boundary (UGB).**

- (41) **“Transportation Impact Analysis (TIA).” A study which evaluates the adequacy of the existing transportation system to serve a proposed**

development and the expected effects of the proposed development on the transportation system. A TIA is required when a particular development is expected to generate more than more than 300 vehicle trips during a single day and/or more than 100 vehicle trips during a single hour. The TIA should provide adequate information for Public Works to evaluate the development proposal and, if necessary, identify traffic mitigation measures.

- (42) “Urban.” Those areas of Polk County which lie within an adopted Urban Growth Boundary (UGB).**
- (43) “Urban Growth Boundary (UGB).” A boundary adopted by both the city and county which includes the estimated supply of various land types (commercial, industrial, public, and residential) intended to serve the city’s needs over a 20-year planning period.**
- (44) “Walkway.” A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths, and paved shoulders.**

Sections 91.411 and 91.412 would be added as follows:

91.411. CONNECTION TO ARTERIALS. Where a subdivision or partition abuts or contains an existing or proposed arterial, the Planning Director or Hearings Officer may require frontage (marginal access) roads, reverse frontage lots with suitable depth, or other such treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

91.412. ACCESS CONTROL. Generally, lots or parcels shall not derive access exclusively from an arterial road. Where driveway or public road access from an arterial road may be necessary for several adjoining lots or parcels, the Planning Director or Hearings Officer may require that such lots or parcels be served by a combined access drive to limit traffic hazards on the arterial road. Driveways should be designed to avoid vehicles needing to back into traffic on arterials and collectors.

Sections 91.445 and 91.450 would be amended as follows:

91.445. STREET WIDTHS. When an area within a subdivision is set aside for commercial uses or where probable future conditions warrant, the Hearings Officer may require dedication of streets to a greater width than otherwise provided in this section. The street right-of-way in or along the boundary of a subdivision shall have the following minimum width, except a boundary street may be half such width where the other half has been dedicated from adjacent property prior to the enactment of this chapter:

Right of Way Curb to

	Width	Curb Width
Major streets or arterials	100 feet	36 feet
Collector Streets	80 feet	36 feet
Minor Streets	60 feet	34 feet
Cul-de-sac	50 feet	34 feet
Turnarounds	50' radius	40' radius

{Ord. 118, sec. 4H}

	<u>Right-of-Way Urban/Rural</u>	<u>Developed Roadway (with sidewalk/shoulder) Urban/Rural</u>
<u>Major Arterial</u>	<u>84 ft./NA</u>	<u>70 ft./NA</u>
<u>Minor Arterial</u>	<u>68 ft./60 ft.</u>	<u>44 ft./44 ft.</u>
<u>Major Collector</u>	<u>68 ft./60 ft.</u>	<u>44 ft./36 ft.</u>
<u>Minor Collector</u>	<u>54 ft./60 ft.</u>	<u>44 ft./30 ft.</u>
<u>Minor (local) Streets</u>	<u>60 ft./60 ft.</u>	<u>44 ft./22 ft.</u>
<u>Cul-de-sac</u>	<u>60 ft./60 ft.</u>	<u>34 ft./22 ft.</u>

91.450. ADDITIONAL RIGHT-OF-WAY WIDTHS. Where topographic requirements necessitates either cuts or fills for the proper grading of the streets, additional right-of-way width or slope easements as approved by the Public Works Director shall be required to allow adequate access to all cut and fill slopes to be within the right-of-way.

Section 91.462 would be added as follows:

91.462. TRANSPORTATION IMPACT ANALYSIS. A Transportation Impact Analysis (TIA) evaluates the adequacy of the existing transportation system to serve a proposed development and the expected effects of the proposed development on the transportation system. The TIA should provide adequate information for Public Works to evaluate the development proposal and, if necessary, identify traffic mitigation measures. The technical requirements for preparing a TIA are described in the Polk County Road Standards.

- (1) A Transportation Impact Analysis (TIA) shall be required for:**
 - (a) Any subdivision that can be reasonably expected to generate more than 300 vehicle trips during a single day and/or more than 100 vehicle trips during a single hour.**
 - (b) Any subdivision within an adopted UGB, if the subdivision would meet the affected city's criteria for requiring a TIA.**
- (2) A Transportation Impact Analysis (TIA) may be required for:**

- (a) Any subdivision that can be reasonably expected to generate more than 150 vehicle trips during a single day or more than 40 trip ends during a single hour.
- (b) Any case in which, based on the engineering judgment of the Public Works Department, the proposed subdivision would significantly affect the County's transportation system. Examples of such cases include (but are not limited to) proposals adding additional traffic in areas with acknowledged traffic and safety problems or neighborhood concerns or proposals which would generate a high percentage of truck traffic.

Sections 91.465 and 91.470 would be amended as follows:

91.465. STREET IMPROVEMENTS. All street improvements, including pavement, curbs, sidewalks and surface drainage shall be in accord with the specifications ~~and standards adopted by the Board~~ of the Polk County Road Standards. The Board may require a performance bond to ensure the development of streets to required standards. Subdivision plats shall not have final approval until such time as the ~~Hearings Officer~~ Board is satisfied that ~~the following~~ any required street improvements will be completed in accord with the specifications and standards set forth in this section.

- (1) Subdivision streets and roads shall be ~~constructed~~ constructed on the following basis as follows:
 - (a) ~~If the average lot or parcel size is less than 1 acre, the improvements shall consist of paved roadway, curbed and with sidewalks consistent with the standard drawings of the Polk County Engineer.~~ For subdivisions located within an urban growth boundary, the road design and construction standards of the affected city shall apply. If the city has no adopted standards then the urban geometric design standards described in the Polk County Road Standards shall apply. The design and construction of all roads shall be based on the functional classification of such roads.
 - (b) ~~If the average lot or parcel size is 1 acre or more, improvements shall consist of paved roadway consistent with the standard drawings of the Polk County Engineer.~~ For subdivisions located outside an urban growth boundary, the rural geometric design standards described in the Polk County Road Standards shall apply. The design and construction of all roads shall be based on the functional classification of such roads.
- (2) The streets and roads are to be completed according to the specifications ~~adopted by the Board~~ of the Polk County Road Standards which include:

- (a) Storm drainage facilities, both within and outside of approved roadway limits, including any provisions necessary for drainage of the lot or parcel.
- (b) Base materials and roadway surfacing materials in place and compacted.
- (c) ~~When required, concrete curbs and gutter; and also Portland cement sidewalks. The location and width thereof shall be determined by the Hearings Officer, and in making such determination the Hearings Officer shall take into consideration the topography of the land, the presence of improvements, trees or other plantings, the type of street, and the location of sidewalks, if any, in adjacent areas or subdivisions. [Ord. 118, sec. 4L; amended by Ord. 88-21]~~

(3) Mitigation may be required based on the traffic impacts identified through the Transportation Impact Analysis.

- (a) **Mitigation may require the dedication of land for improving existing roadways or constructing future roadways as development occurs. This includes roadway dedication on lands for which building permits are requested for new structures as well as lands proposed for major development.**
- (b) **Mitigation may include the improvement of existing roadways intersecting or bordering a development to a standard that coincides with anticipated use. The classification of an existing road may increase based upon the results of a traffic analysis. An increase in classification shall necessitate an improvement in the roadway in accordance with the Polk County Road Standards.**

(4) Access onto arterials will require the approval, through the permit process, from the Oregon Department of Transportation. The applicant(s) will need to follow ODOT's construction requirements for that portion of the access within state-owned right-of-way.

91.470. MINIMUM WIDTHS OF DEEDED ACCESS EASEMENTS. All deeded easements granting vehicular access to partitioned land across private property shall provide 30 feet of right-of-way from a public road, except as otherwise provided for by the Hearings Officer. **An easement for access to two (2) or more dwelling lots or to two (2) or more dwellings on lots established after the effective date of this ordinance shall be at least 60 feet wide.**

[Ord. 118, sec. 4M; amended by Ord. 88-21]

Sections 91.480 and 91.490 would be added:

91.480. PEDESTRIAN FACILITIES. Subdivisions shall include a pedestrian

circulation plan for providing safe and convenient pedestrian access. For subdivisions within adopted urban growth boundaries, the provision of pedestrian facilities shall conform to all requirements of the affected city. In rural areas, pedestrian facilities as may be required by the Hearings Officer shall be installed on at least one side of a public street. In rural areas, the Hearings Officer may approve a subdivision without appropriate pedestrian facilities, if alternative pedestrian routes are available or if the applicant can demonstrate that there is no need for such facilities. In the case of streets serving lots of 5 acres or larger in size, the requirement of walkways shall not apply. Walkways shall be constructed to the standards found in the Polk County Road Standards.

91.490. BICYCLE FACILITIES. Where applicable, subdivisions shall include a bicycle circulation plan, if appropriate, for connection to existing or planned bikeways. For subdivisions within adopted urban growth boundaries, the provision of bicycle facilities shall conform to all requirements of the affected city. In rural areas, bikeways shall be constructed to the standards found in the Polk County Road Standards.

The following subsection would be added to Section 91.630:

91.630. INFORMATION REQUIRED ON TENTATIVE PARTITION PLANS.

(3) If the partition is within 500 feet of or requires access to a state highway, ODOT comments will also be requested.

Section 91.710 (l) would be added as follows:

91.710. SUBDIVISION OF AREAS INTO FOUR OR MORE LOTS.

(l) The location of all proposed pedestrian and bicycle facilities.

Section 91.720(3) would be amended as follows:

91.720. PREREQUISITES FOR FINAL RECORDING OF PLATS.

(3) No subdivision shall be platted within three miles of the corporate limits of any city exercising planning and zoning authority unless such plat is first reviewed by the Planning Authority of such city and a report thereupon obtained. Failure of the Planning Authority of such city to respond within 20 days shall be deemed an approval. **If the subdivision is within 500 feet of or requires access to a state highway, ODOT comments will also be requested.**

Amendments to Chapter 110 of the Polk County Zoning Ordinance - General Provisions and Definitions.

Section 110.007 would be added as follows:

110.007. ACCESS. The connection of any existing or proposed road or bike facility to a county or state road; for example, a private driveway or public road, for ingress or egress to property.

Section 110.070 would be added as follows:

110.070. ARTERIAL STREET (ROAD). A roadway intended to carry large volumes of traffic (typically 1,000 ADT or more outside of an urban growth boundary) and connect major traffic generators, cities, recreational areas, and major segments of transportation networks. High capacity is achieved through allowing higher speed, limited access, wider roadway and movement preference at intersections with lesser standard roadways.

“Principal arterials” are major urban and rural highways connecting communities towns, and cities. The principal arterial provides for through traffic movement and distribution to lower order roadways.

“Minor arterials” connect areas of principal traffic generation to major urban and rural highways. The minor arterial network provides for through traffic movement to the major arterials and distribution into the network of collector and local streets.

Section 110.232 would be added as follows:

110.232. FRONTAGE ROAD. Also known as Marginal Access Road. A service road generally parallel and adjacent to an arterial, and which provides access to abutting properties, but protected from through traffic.

Section 110.487 would be added as follows:

110.487. REVERSE FRONTAGE LOT. A lot having frontage on two parallel or approximately parallel roads, where the rear of the lot, or structure on the lot faces an arterial.

Amendments to Chapter 111 of the Polk County Zoning Ordinance -
Administration and Procedures

The following subsection would be added to Section 111.245:

111.245. NOTICE OF TYPE A PROCEDURE.

- (B) Notice shall be mailed to the Oregon Department of Transportation for any land use change or development requiring County review and approval which requires direct access to a state highway or which is located within 500 feet of a state highway or public use airport.**

The following subsection would be added to Section 111.350:

111.350. MAILING OF NOTICE; NOTIFICATION AREA; FAILURE TO RECEIVE NOTICE.

- (E) Notice of a public hearing shall be mailed to the owners of public-use airports if the property subject to the land use permit or zone change is located:**
- (1) Within 5,000 feet of a visual airport.**
- (2) Within 10,000 feet of an instrument airport**

Amendments to Chapter 112 of the Polk County Zoning Ordinance - Development Standards.

Section 112.160 would be amended as follows:

112.160. DWELLINGS TO BE ACCESSIBLE. Every dwelling shall have access to a public road or to an easement. An easement for access to two (2) or more ~~dwelling~~ **buildable** lots or to two (2) or more dwellings on lots established after ~~the effective date of this ordinance~~ (November 13, 1970) shall be at least ~~50~~ **60** feet wide.

Section 112.175 would be added as follows:

112.175. ACCESS ONTO ARTERIALS.

- (A) The number of access points onto arterial roads from any development shall be minimized whenever possible through the use of driveways common to more than one development, and interior circulation design, including frontage or marginal access roads, which further this requirement.**

Generally, no driveway or County or public road access will be permitted onto the rural portions of State Highways 18, 22, 51, 99W, 221, and 223 unless the following standards are met:

State Highway Access Distance

<u>Access Type</u>	<u>Distance From Nearest Access Point</u>					
	<u>Hwy 18</u>	<u>Hwy 22</u>	<u>Hwy 51</u>	<u>Hwy 99W</u>	<u>Hwy 221</u>	<u>Hwy 223</u>
<u>Driveway</u>	<u>1,200 feet¹</u>	<u>1,200 feet</u>	<u>500 feet</u>	<u>1,200 feet</u>	<u>500 feet</u>	<u>300 feet</u>
<u>County or Public Use Road</u>	<u>1-3 miles</u>	<u>1-3 miles</u>	<u>.5 mile</u>	<u>1 mile</u>	<u>.5 mile</u>	<u>.25 mile</u>

¹ **Right turn only access permitted**

- (B) Access onto arterials will require the approval, through the permit process, from the Oregon Department of Transportation. The applicant(s) will need to follow ODOT's construction requirements for that portion of the access within state-owned right-of-way.**
- (C) Where property, such as a reverse frontage lot, is located abutting a county or public use road, and a state highway, the preferred access will be onto the county or public use road.**

Appendix E - TPR Checklist

POLK COUNTY TSP

Requirements/Recommendations	Compliance	Completed
Public and Interagency Involvement: Indirectly Required-Statewide Goal 1 - Ref: Suggested Procedures from ODOT's TSP Guidelines.		
Establish advisory committees	Technical Advisory Committee (TAC) established: Representatives from State, Cities, and County. Also the Planning Commission and Board of County Commissioners regularly participated in work sessions.	Yes
Develop informational material, schedule meetings and hearings, and coordinate plan with other agencies	Five TAC meetings were held, five planning workshops, four BOC workshops, two sets of open houses, and two public hearings. Data, information, and the TSP coordinated with ODOT, MWVGOG, Cities of Salem, Monmouth, Independence, Dallas, and Willamina. Minutes and other records are contained in Appendix G .	Yes
Review Existing Plans, Policies and Standards: Not Required by TPR - Ref: Suggested Steps from ODOT's TSP Guidelines.		
Review and evaluate existing comprehensive land use and transportation plans.	A bibliography contained in Appendix B lists plans reviewed	Yes
Review regional and state plans, significant transportation studies, and capital improvement programs.	A bibliography in Appendix B lists plans, studies, and programs reviewed. Close contact was maintained with in-progress studies such as Regional Problem Solving	Yes
Analyze existing land uses and vacant lands	Comprehensive Plan and Zoning designations were studied. Designations are shown in TSP Figures 1 and 2 . Potential development impacts were estimated in rural residential areas (see Impacts From Future Development). Alternatives were developed. See Figures 14 through 18 and preferred alternatives selected see Figures 9 through 11 .	Yes
Review Population and Employment Forecasts	Census/State Economist	Yes
Review existing ordinances and zoning, subdivision, and engineering standards	A bibliography in Appendix B lists documents reviewed.	Yes

Inventory and Assess Existing Transportation Systems: Required by TPR – 660-12-020(3)(a)		
Street system	The plan contains a comprehensive road inventory, including local roads, in Appendix C . A capacity analysis of the system and turning movements at key intersections was deferred for a later refinement study. Minimal requirements of TPR were exceeded by use of steps in ODOT's TSP Guidelines. Assessments are contained in Transportation Forecast Section of the TSP.	Yes
Bicycle system	See Bike and Pedestrian Plan and Proposed System Improvement Sections and Figure 4 .	Yes
Pedestrian system	A inventory of sidewalk width, type, and location was deferred to a refinement study. A general assessment is in Bike and Pedestrian Plan Section of the TSP.	No
Public transportation service	Only fixed route system is in West Salem. Paratransit service exists elsewhere. See Public Transportation Element, Figures 5 & 6 .	Yes
Air transportation	A State owned airport, and numerous private airfields are located in the County. See Air, Rail, Water, and Transmission Lines Section .	Yes
Freight and rail transportation	See Air, Rail, Water, and Transmission Lines Section .	Yes
Water transportation	Willamette River borders the County. See Air, Rail, Water, and Transmission Lines Section .	Yes
Pipeline transportation	A natural gas pipeline lies along Highway 22. Polk County has elected to treat other utilities as transportation devices. See Air, Rail, Water, and Transmission Lines Section .	Yes
Existing population and employment	Census/PSU. See Population & Employment Section .	Yes
Determination of Transportation Needs: Required by TPR - 660-12-030		
Forecast population and employment (Required within UGBs)	Used Census/PSU/State Economist/City Data. See Population & Employment Section .	Yes
Identify needs relevant to planning area and scale of network (Include state, regional, local, transportation disadvantaged. Also goods and services to support industrial and commercial development)	Needs outside UGBs are minimal, with the exception of three rural residential areas where additional roads will be necessary to carry expected traffic growth. See Transportation Forecast & Deficiencies Section, Figures 9, 10, & 11 .	Yes

Other Roadway Needs: (Not specified in TPR, but needed for Finance Plan, if applicable)		
Safety needs	Accident Locations Noted. Intersection and Bicycle Route Needs Identified and Improvements Planned. See Proposed System Improvement Section.	Yes
Bridge needs	Needs have been identified for many years, based on recurring inspections. Repairs and Replacements shown in Proposed System Improvement Section	Yes
Reconstruction needs	System presently in good to excellent condition.	Yes
Operations/Maintenance needs	Not discussed in TSP, but considered in Finance Section	Yes
Public transportation needs	Discussed in Public Transportation Section	Yes
Bikeway needs	Discussed in Bike and Pedestrian Plan Section and Proposed System Improvements Section	Yes
Pedestrian needs	Discussed in Bike and Pedestrian Plan Section	Yes
Develop and Evaluate Alternatives: Required by TPR - 660-12-035		
Evaluate potential impacts of system alternatives. Alternatives expected to reasonably meet needs, safe, reasonable cost, available technology	Alternatives available for AR-5 areas discussed in Transportation Forecast & Deficiencies Section. Alternatives reviewed in Appendix F. Multi-modal alternatives discussed in respective sections.	Yes
Evaluate components of system alternatives: improvements to existing, new (including different modes), TSM, TDM, and no-build.	Alternatives available for AR-5 areas discussed in Transportation Forecast & Deficiencies Section. Alternatives reviewed in Appendix F. Multi-modal alternatives discussed in respective sections.	Yes
Evaluation standards: support development with transportation appropriate to serve land uses; consistent with air, land, water quality; minimize economic, social, environmental, energy consequences, minimize modal conflicts, and reduce principal reliance on automobile.	Alternatives available for AR-5 areas discussed in Transportation Forecast & Deficiencies Section. Alternatives reviewed in Appendix F. Multi-modal alternatives discussed in respective sections.	Yes
Interim Benchmarks-Five Year Intervals	Established. See Table 21.	Yes
Produce Transportation System Plans: Elements contained in TPR - 660-12-020		
Road Plan-Arterials and Collectors (Functional Class and Access) Standards for Local Roads (Bike and Pedestrian, Extensions and Connections)	See Road Plan Section, Figure 3 & Tables 6, 7, & 8 and Transportation Forecast & Deficiencies Section	Yes
Public Transportation Plan	See applicable section	Yes
Bikeway and Pedestrian Plan	See applicable section	Yes

Airport element	See applicable section	Yes
Freight and rail elements	See applicable section	Yes
Water transportation element	See applicable section	Yes
Pipeline element	See applicable section (Transmission Lines)	Yes
Implementation and Adoption: (Required by TPR - 660-12-015, 045, and 055)		
Plan Review and Coordination	Review by TAC members, Planning Commission, Cities, and General Public at meetings and open house	Yes
Adoption	Recommendation by Planning Commission & Adoption by Polk County Commissioners. Adoption on scheduled for June 1998.	Yes
Ordinances (Including enabling, protection, and encouraging)	See Appendix D . Also see Proposed System Improvements; Outstanding Actions .	Future Action Required
Financing/Capital Improvements: (Not Required for Counties by TPR)		
Proposed Improvements	Cost Estimates shown in Proposed System Improvements Section . Budget Estimates and Potential Funding Sources in Finance Plan Section	Yes

Sources: Transportation System Planning Guidelines, ODOT, August 1995 (Appendix 2). Oregon Administrative Rules, Chapter 660, Division 12 - Land Conservation and Development Commission.

Appendix F - Alternatives

As part of the TSP process, Polk County has identified and refined the proposed location of new local and collector roads for three (3) areas of Polk County where large tracts of land zoned for rural residential development (AR-5) are located: (1) West Salem-Eola Hills area, (2) Reuben-Boise and Pioneer Road area, and (3) Cooper Hollow Road and Kings Valley Highway area.

Several maps are included for each area. These include the alternatives considered for each area along with the staff recommended “Preferred Alternative.” For each area, the Alternative 1 map was first reviewed by the Planning Commission. Further refinements were made based on discussions with affected property owners and site visits by staff. In December 1997, Polk County conducted an open house to present the Preferred Alternative for each area. Approximately 80 persons attended the open house and provided comments regarding road planning and maintenance issues within the county.

A general description of the refinement process and Preferred Alternative for each area is as follows:

West Salem Area

Alternative 1 (**Figure 14**) included several connections between 50th Avenue and 53rd Avenue and a road network connecting Orchard Heights Road and Eola Drive. Several connections between 55th Avenue and Oak Grove Road were also examined. Based on discussions with property owners, most of these connections were eliminated in Alternative 2 based on topographic constraints. Alternative 2 (**Figure 15**) considered a different connection between 50th Avenue and 53rd Avenue. This connection was also dropped from consideration, however, due to topographic constraints. East-west connections to Chatnicka Heights Subdivision (map location 7-3-19) were eliminated when it was discovered that the property west of this subdivision is actually located in the Salem city Limits (but outside the Urban Growth Boundary) and is not under county jurisdiction.

In comparison to other areas zoned AR-5 which were under review, the West Salem area has greater physical and topographic constraints, as well as significant public safety issues. With the exception of the area around the undeveloped portion of Eola Drive, this area does not have the large tracts of vacant, developable rural residential land found in the other study area. Consequently, the preferred alternative for this area (**Figure 10**) does not show future road locations where right-of-way would be acquired and roads constructed as residential development occurs.

The preferred alternative does identify a possible frontage road which could be constructed to alleviate public safety issues associated with Highway 22. In addition, Polk County will work with ODOT as part of the Corridor Planning Refinement Plan process on Highway 22 to identify one or more connections between 55th Avenue and Oak Grove Road, in the event that the 55th

Avenue connection to Highway 22 is closed. This process is scheduled to begin in 1999. The county will seek ODOT assistance in design and construction of one or more of these connections, which would serve as a county road, if the 55th Avenue/Highway 22 intersection is closed.

An extension of the undeveloped portion of Eola Drive to connect with Oak Grove Road is also shown as part of the preferred alternative. This connection could provide an additional east-west route, if the properties along the undeveloped portion of Eola Drive (shaded area in Section 23) were developed. This connection may not be needed, however, if the corridor refinement process identifies sufficient east-west connections between 55th Avenue and Oak Grove Road to serve local traffic needs.

North Dallas Area

Alternative 1 (**Figure 16**) included several connections between Pioneer Road and Reuben Boise Road as well as east-west extensions of Webb Lane and a second Pioneer Road/Ellendale Road connection. Based on discussions with property owners, most of these connections were eliminated in Alternative 2 based on topographic constraints and physical constraints, such as drainage, or the location of existing buildings in the property right-of-way. Alternative 2 (**Figure 17**) considered a different connection between Pioneer Road and James Howe Road as part of the western extension of Webb Lane. This connection was eliminated due to physical constraints.

The preferred alternative for this area (**Figure 9**) shows a connection between Reuben Boise Road and Pioneer Road which could serve the several hundred acres of vacant AR-5 property in this area. Acquisition of right-of-way and construction of this road would occur over time based on the level and intensity of rural residential development in this area.

The preferred alternative also shows an extension of Webb Lane to connect with Highway 223 on the east. As shown in **Figure 9**, the County will identify the future location of a connection between West Ellendale Road and the west end of Webb Lane, which is undeveloped. Such a connection coupled with the extension of Webb Lane to connect to Highway 223 would function as a limited access collector serving local traffic needs and rural land uses. This connection could serve the James Howe Road, Pioneer Road, and Orchard Knob Road area and could also be used as a truck route alleviating traffic problems on Ellendale Road. **Table 21** notes that the County will coordinate with the City of Dallas to identify the approximate location of the Ellendale Road-Webb Lane connection in the year 2000.

South Dallas Area

Alternative 1 (**Figure 18**) included several north-south connections between Monmouth Highway and Ferns Corner Road. Several other connections were examined between Ferns Corner and Strong Road as well as a grid system near the intersection of Ferns Corner Road and McCaleb Road. Most of these connections were eliminated because the properties to be served have adequate existing access and future development potential was limited.

The Preferred Alternative (**Figure 11**) shows several proposed connections between Ferns Corner Road, Highway 223, and Monmouth Highway. These connections would serve the largest vacant developable tract in the study area and would provide adequate circulation and access to this area.

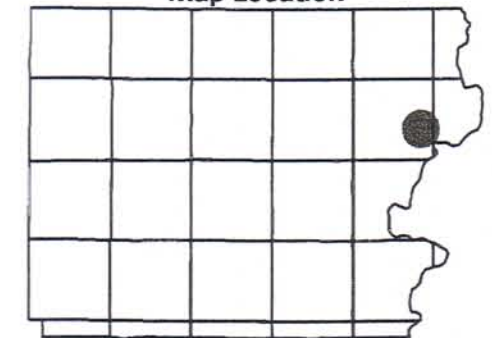
Existing & Proposed Road System West Salem

Areas Zoned for Acreage Residential Development

Alternative 1



Map Location



Map Scale: 1" = 0.36 mi.

Legend





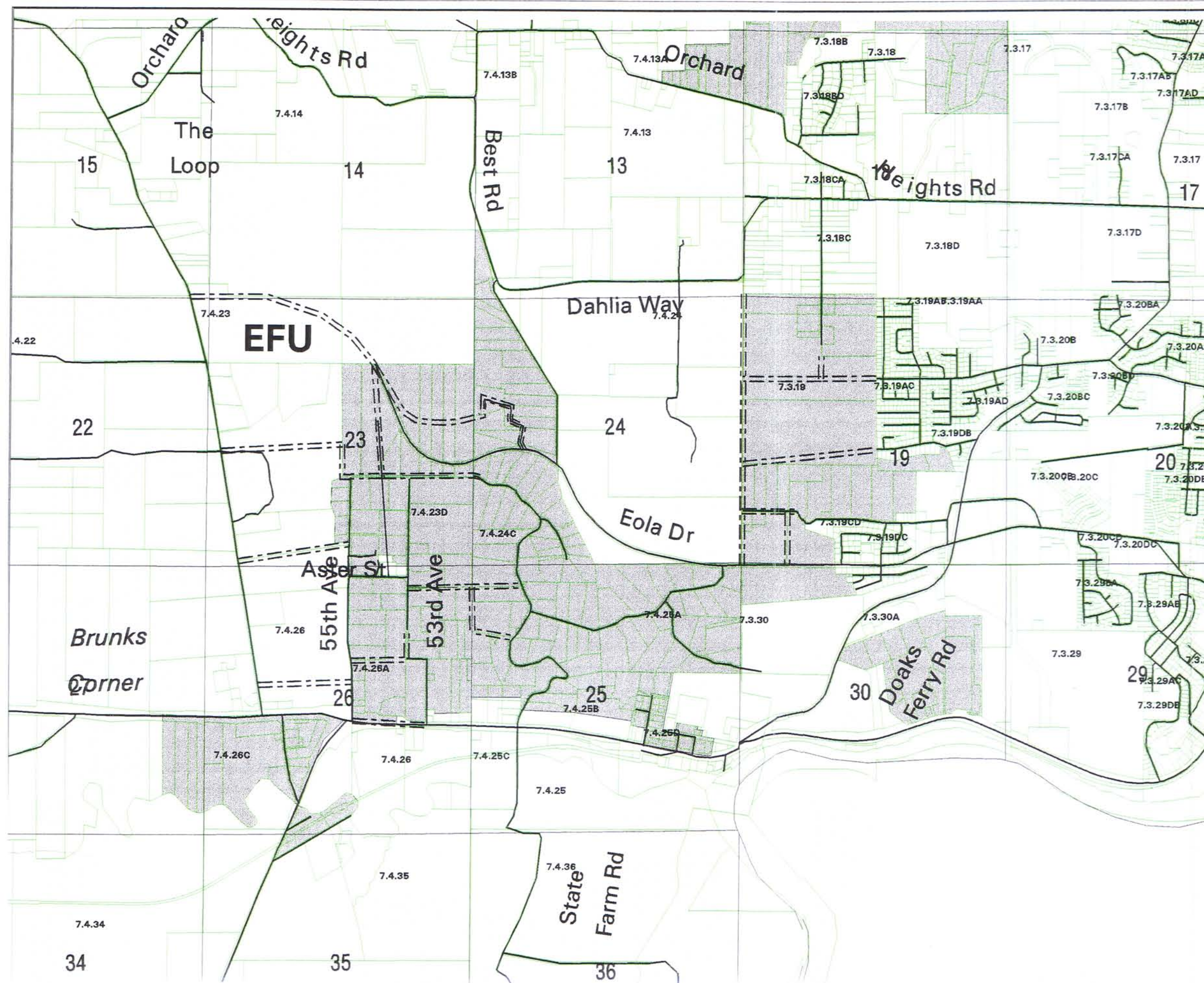
- EFU - Exclusive Farm Use Zone
-  Acreage Residential Zone (AR-5)
-  Proposed Local & Collector Roads
-  Existing Roads
-  Taxlots

Figure 14, Appendix "F"

DATE: 03/11/98
T7SR4W - T7SR3W



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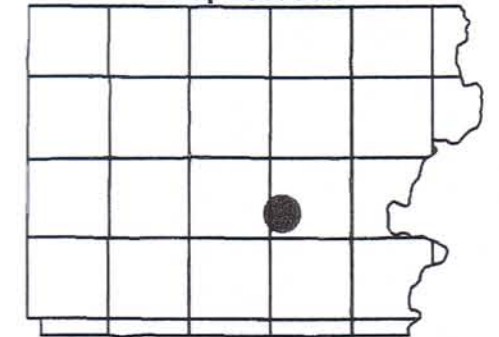
Existing & Proposed Road System South Dallas

Areas Zoned for Acreage
Residential Development

Alternative 1



Map Location



Map Scale: 1" = 0.30 mi.

Legend





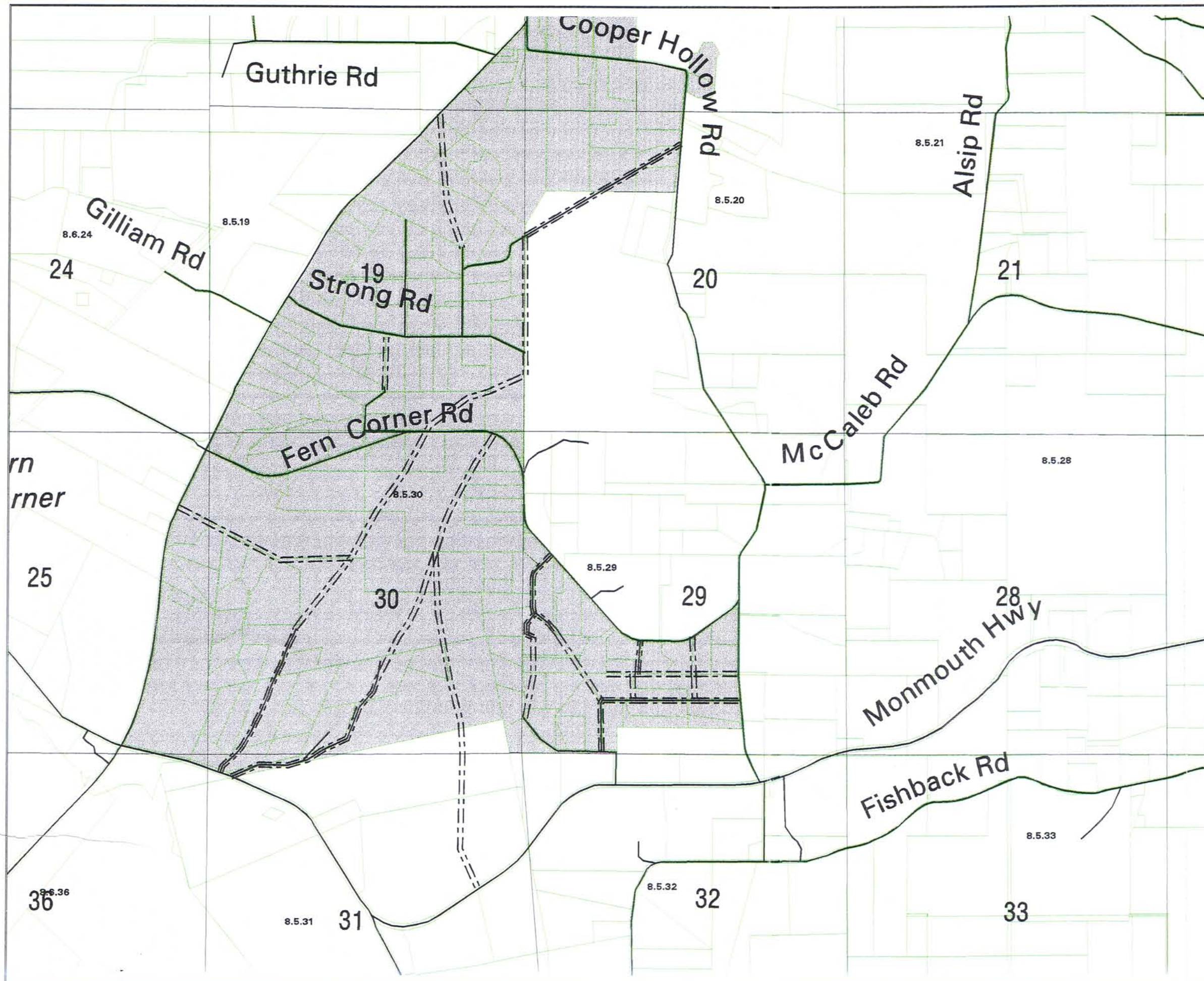
-  Acreage Residential Zone (AR-5)
-  Proposed Local & Collector Roads
-  Existing Roads
-  Taxlots

Figure 18, Appendix "F"

DATE: 03/11/98
T7SR6W - T7SR5W



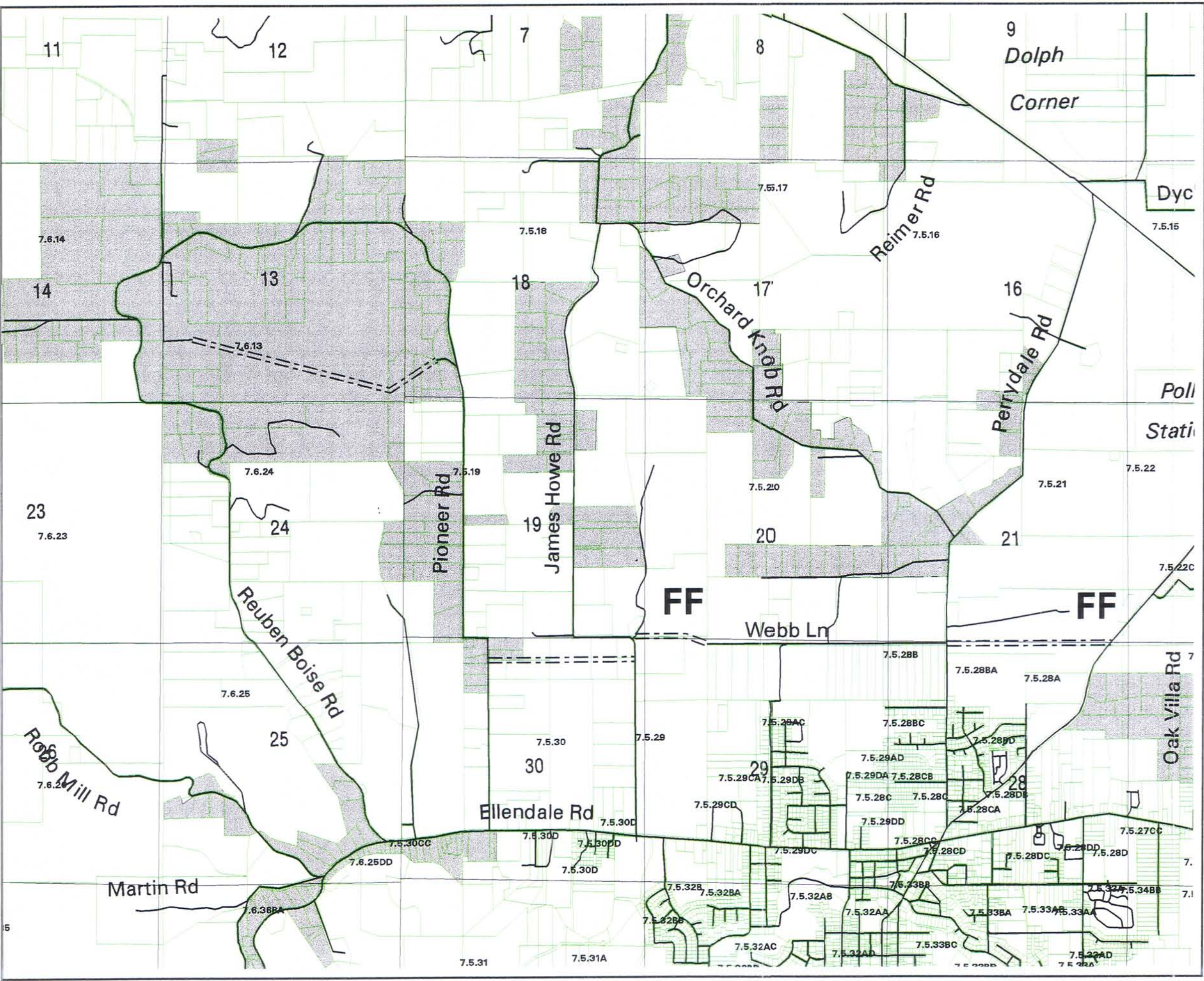
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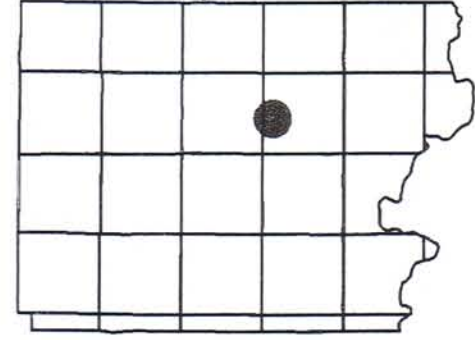
Existing & Proposed Road System North Dallas

Areas Zoned for Acreage Residential Development

Alternative 2



Map Location



Map Scale: 1" = 0.40 mi.

Legend

- FF - Farm Forest Zone
- Acreage Residential Zone (AR-5)
- Proposed Local & Collector Roads
- Existing Roads
- Taxlots

Figure 17, Appendix "F"

DATE: 03/11/98
T7SR6W - T7SR5W



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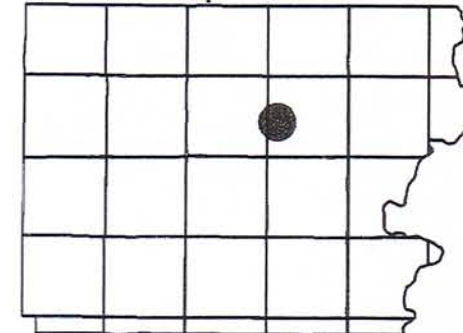
Existing & Proposed Road System North Dallas

Areas Zoned for Acreage Residential Development

Alternative 1



Map Location



Map Scale: 1" = 0.40 mi.

Legend





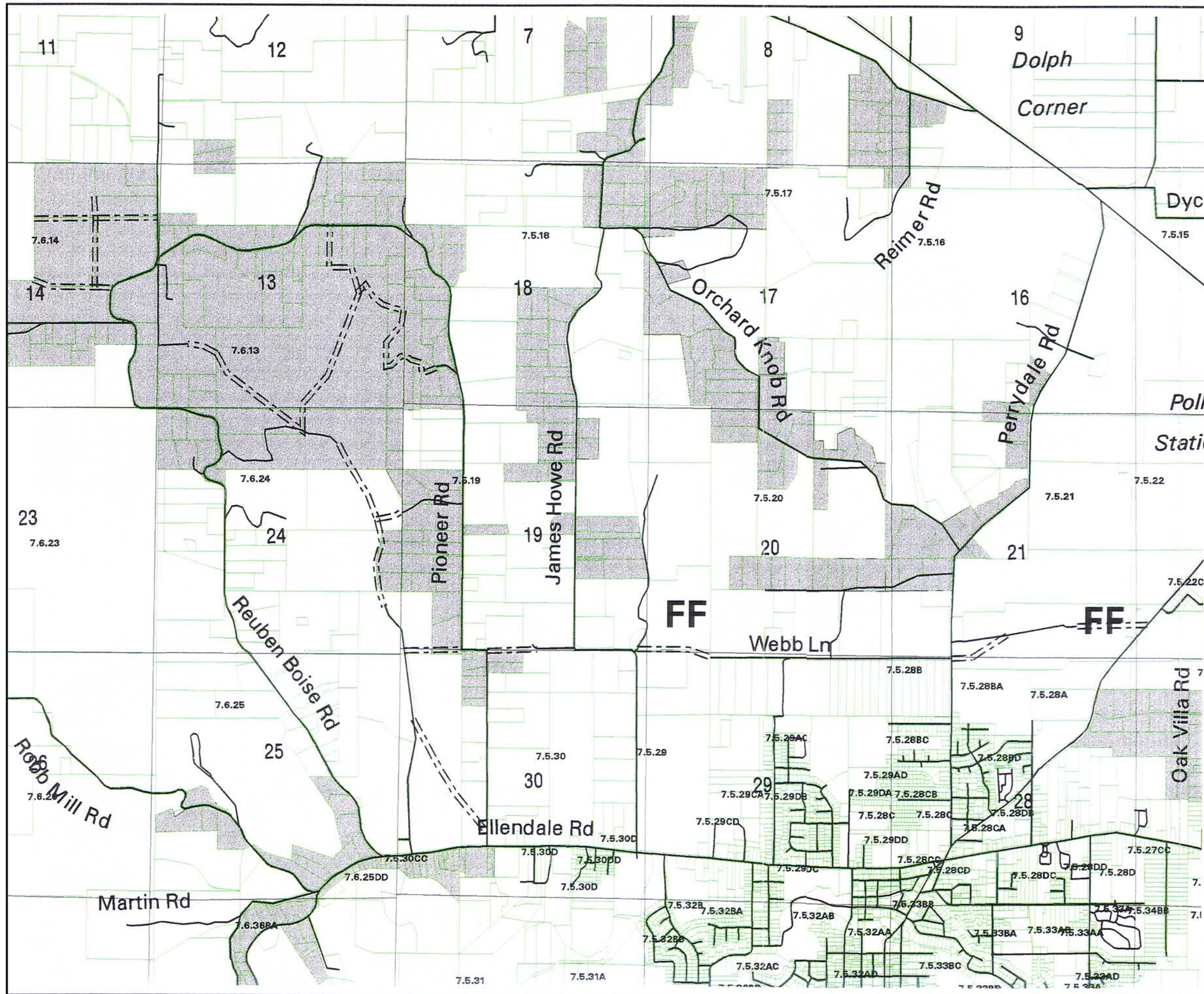
- FF - Farm Forest Zone
-  Acreage Residential Zone (AR-5)
-  Proposed Local & Collector Roads
-  Existing Roads
-  Taxlots

Figure 16, Appendix "F"

DATE: 03/11/98
T7SR6W - T7SR5W



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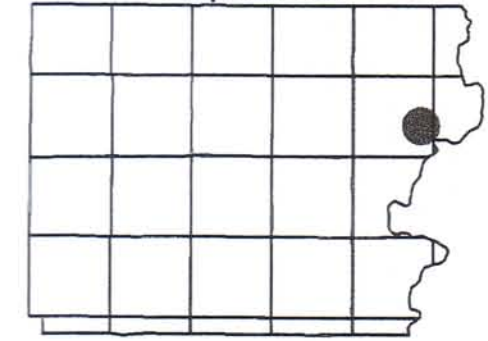
Existing & Proposed Road System West Salem

Areas Zoned for Acreage
Residential Development

Alternative 2



Map Location



Map Scale: 1" = 0.36 mi.

Legend


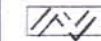

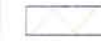
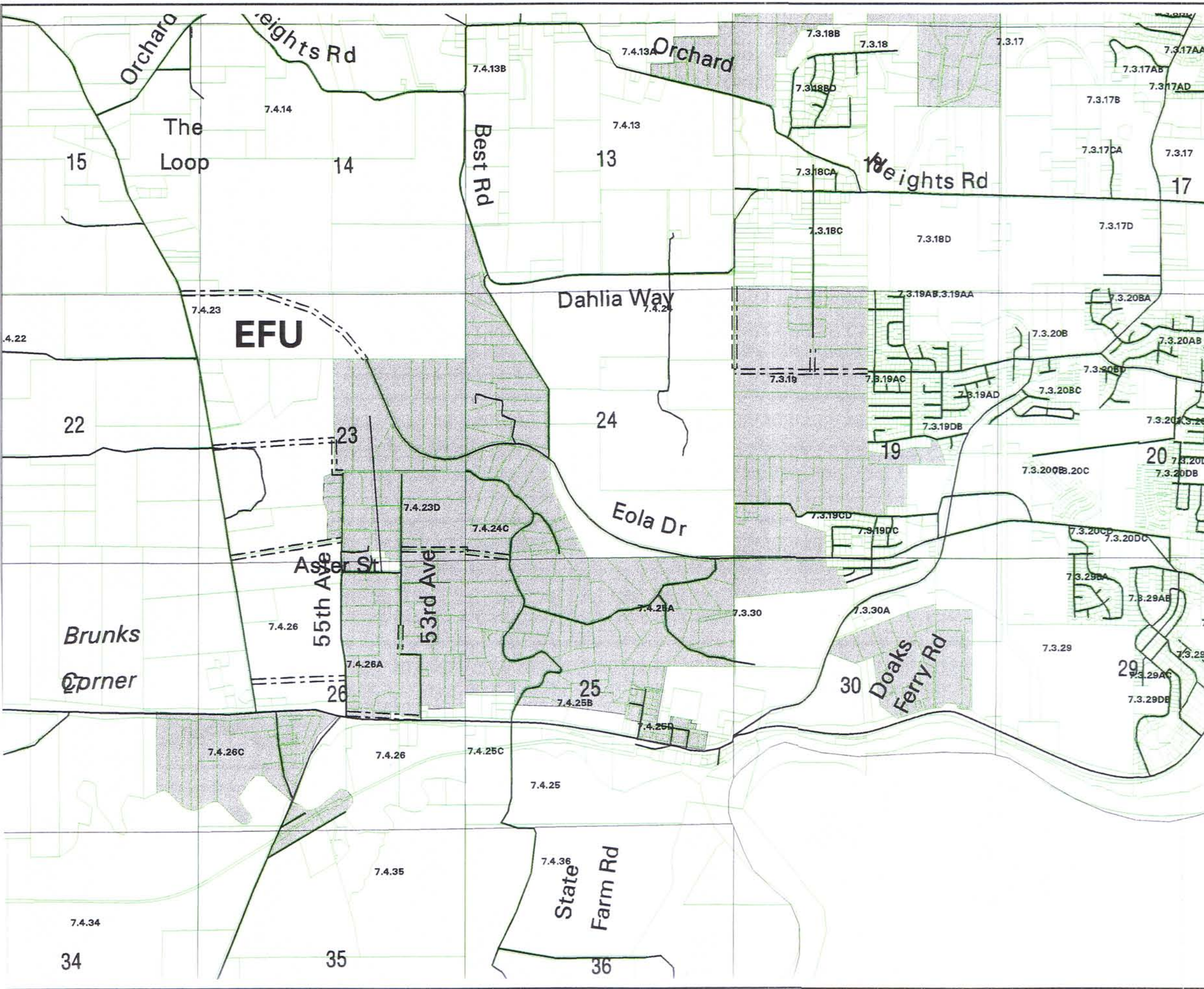
- EFU - Exclusive Farm Use Zone
-  Acreage Residential Zone (AR-5)
-  Proposed Local & Collector Roads
-  Existing Roads
-  Taxlots

Figure 15, Appendix "F"



DATE: 03/11/98
T7SR4W - T7SR3W

This map was produced from data stored in the Polk County Geographic database. The data is maintained by the county to support its governmental activities. The county is not responsible for any map errors, possible misuse, or misinterpretations.



Appendix G - Public Involvement

Opportunities for the public to become involved in developing the Polk County TSP came about through open houses, Planning Commission meetings, Technical Advisory Committee meetings, and numerous individual meetings and phone calls with citizens. **Table 22** lists, by category, the issues raised during this process and to what extent the TSP addresses these issues. Some issues are not directly addressed in this plan and may require further information or study. Funding for these studies should be sought from sources such as the Transportation and Growth Management (TGM) program.

Table 22
Transportation Issues

Issue/Topic	TSP Response
Communication	
Coordination between ODOT, county, and cities	ODOT and cities provided with TSP drafts for review and comment
Thorough public and agency involvement in TSP development	Open houses conducted, TSP review copies provided to Area Advisory Committees, ODOT, and DLCD.
Safety	
Traffic safety at intersections	Several intersection improvement projects listed in Table 15 and Table 19. Other improvements will be identified through the Highway 18 and Highway 22 Corridor Refinement processes.
Ensuring system remains safe after improvements	Further study needed
Left turn lanes on Highway 22	Several intersection improvements identified in the Proposed System Improvements. Highway 22 Corridor Refinement Plan scheduled to begin in 1999.
Weight limitations	Further study needed.
Improve signage	Ongoing process.
Consistent signage (stops at intersections)	Provide as needed.
Signal control onto Highway 18	Highway 18 Corridor Refinement Plan currently underway. Expected completion 1999.
Speeding: Hopewell, Butler Hill, Orchard Heights, and Oakdale Roads	More information necessary.
Physical Improvements	
Wallace Bridge	Improvements made 1998. Additional improvements may be identified as part of the Highway 18 Corridor Refinement Plan process.
Dallas and Monmouth bypasses	TSP identifies connection from Ellendale Road to Highway 223 via James Howe Road and Webb Lane. Monmouth bypass requires further study.
More left turn lanes	More information necessary.
Light at Riverbend Road with left turn lane	Further study required
Salem, Keizer bridge, North or South	River Crossing Study currently underway.
Widen and straighten Reuben Boise	Not identified as an improvement.

Issue/Topic	TSP Response
Widen Highway 51 from Highway 22 to Independence	Not identified as an improvement.
Four lanes on Highway 22 from Salem to Lincoln City	Further study required as part of the Highway 18 and Highway 22 corridor refinement planning process.
Wallace Road bypass approved by ODOT	Identified as part of the Salem TSP. Requires coordination between Polk County and City of Salem.
Improve West Salem "bottleneck" on ramp	Bridgehead Study currently underway.
Salemtowne bypass along old riverbank	Identified as part of the Salem TSP. Requires coordination between Polk County and City of Salem.
Four lanes on Highway 99W from Monmouth to McMinnville	Further study required.
More river crossings	River Crossing Study currently underway.
Additional lanes	More information necessary.
Pave or grade dirt roads	Maintenance provided by Public Works Department as budgeted.
Traffic Congestion	
Grand Ronde area	Highway 18 Corridor Refinement Plan currently underway. Expected completion in 1999.
Highway 22	Highway 22 Corridor Refinement Plan process expected to begin in 1999.
Access Concerns	
Highway 51 to Highway 223 (Make Highway 223 county road)	Further study required.
Highway 22 and 99W Interchange	Proposed as a conceptual improvement.
Highway 22 access	Should be addressed as part of Highway 22 Corridor Refinement Plan process expected to begin in 1999. Several conceptual improvements proposed.
55th Avenue onto Highway 22 and Highway 51 onto Highway 22	Should be addressed as part of Highway 22 Corridor Refinement Plan process expected to begin in 1999. Several conceptual improvements proposed.
Close roads that access Highway 22	Should be addressed as part of Highway 22 Corridor Refinement Plan process expected to begin in 1999. Several conceptual improvements proposed.
Arterial access restrictions	ODOT standards for accessing arterials included in the list of proposed Zoning Ordinance Amendments.
Limit access to Highway 22 by commercial vehicles	Further study required.
Accessibility by transportation disadvantaged	Addressed in Public Transportation Element
Highway 99W to Highway 22 (restricted, well-planned access)	ODOT standards for accessing arterials included in the list of proposed Zoning Ordinance Amendments.
Farm machinery access	Further study required.
Limit access and construct frontage roads when possible	Further study required.
Financial	
Fiscal "reality check" regarding improvements	Proposed improvements primarily use state and federal funds. County funds primarily dedicated to repair and maintenance.
Increase gas tax 24 cents per gallon	Beyond Polk County's jurisdiction.

Plan and Policy	
Road standards	Road standards developed and proposed for adoption.
Tie Dallas-Monmouth-Independence with county	Ongoing. Several proposed or conceptual projects that address this issue included in TSP. Future coordination necessary.
Look at entire county	Transportation system county-wide reviewed as part of TSP process.
Consistency with city TSPs, regional plans, and state plans	Included as part of the TSP. Ongoing coordination identified.
Amend ordinance to effectively implement TSP Review entire county, not just parts (Grand Ronde)	Transportation system county-wide reviewed as part of TSP process. Concurrent ordinance amendments proposed for adoption.
Protecting highway corridors, and protecting facility for its planned purpose	Polk County participates in the highway corridor planning process. Development and land use consistent with ODOT requirements.
Improve south flow	Highway 99W identified as a Primary Arterial. Conceptual Projects includes a Highway 22-99W interchange.
Look at access to Portland	Further study required.
Planned road network in AR-5 zones	Preferred alternatives developed for three areas.
Transportation to Portland	Further study required.
Bicycle/Pedestrian Issues	
Zena Road is often used by cyclists and is bike friendly	TSP identifies future bikeway on Zena Road from Highway 221 to Highway 99W.
Add a two mile long shared shoulder from Monmouth along Mistletoe to accommodate joggers	Current traffic counts may not warrant this improvement. Further study required.
Bikers use Brush College Road to Doaks Ferry Road	Further study required.
Additional bicycle/pedestrian paths	More information necessary.
Complete and continuous bike paths between cities	Further study required,
Safe convenient walking and bicycle access	Further evaluation in Rural Community Centers is necessary. Bike and pedestrian standards proposed for addition as part of the Polk County Subdivision and Partition Ordinance.
Adequate designed bicycle lanes	Bikeway standards included as part of the Polk County Road Standards.
West Salem pedestrian trail system	Further study required.
Highway 223 onto Highway 22	TSP identifies connection from Ellendale Road to Highway 223 via James Howe Road and Webb Lane. Monmouth bypass requires further study
Public Transportation Issues	
Round trip shuttle buses between cities	Further study required.
Senior citizen/disabled/handicapped transportation system	Public Transportation Element possible improvements to para-transit and public transit systems.
Orchard Heights extension and bus service	Existing transit service available for portions of Orchard Heights Road (see Figure 5). Service extension will require further study.
Affordable public transportation system (buses)	Public Transit Plan describes possible transit option.
Transportation to Portland	Further study required.
Rail	
High speed rail interface	Further study required
Multimodal opportunities for commuters	Further study required.

Other Comments

1. Polk and Yamhill goals are economic, even if it means destroying agriculture.
2. Butler Hill (on Highway 22) has many accidents, especially when it is icy or frosty. Caused by weather and speed.
3. Too many dangerous accesses onto Highway 22.
4. They should have extended Orchard Heights when they talked about it.
5. No one is developing innovative solutions to the traffic problems.
6. I don't think the state will do anything for Highway 22 because they can't afford to work on Highway 18, and that's more important.
7. I used to use the Rosemont entrance and exit by Safeway, but it's not safe, so I use Eola now.
8. The AARP teaches a mature driver's course. I learned to try and always make right turns, rather than left. Some insurance companies reduce premiums for taking the course.
9. Don't build any toll roads. It's unconstitutional (OR) and a case is before the courts now.

The following pages contain agendas, minutes, letters, and other documents which are a record of the opportunities available for discussions, the concerns raised, and other factors brought forth by participating individuals.

Appendix H – Rickreall Interchange

See Planning File# LA 02-07