GRANTS PASS CASE STUDY: INDIRECT LAND USE AND GROWTH IMPACTS

Interim Report

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16. Abstract

To improve environmental analysis of indirect land use impacts of highway capacity improvements, this study analyzed the land use and growth patterns of 20 Oregon communities over 20 years. Using a Geographic Information System and aerial photos, growth patterns were categorized and mapped. Factors related to land use and transportation were evaluated for their relationships to resulting growth patterns. These relationships were further investigated in four in-depth case studies of development prior to, during, and after construction of a highway capacity improvement.

Additional case studies are currently underway. The primary product of this research will be guidance for completing an assessment of the indirect impacts on land use and growth of a highway improvement. This assessment is required by environmental regulations, but tools and data for developing general land use forecasts is limited. The guidebook will include examples from the case studies, data types and possible sources, and guidance on using GIS tools for comparing alternative scenarios.

Interim reports are available via the Research Internet web site. Additional case studies and a final report are scheduled to be published in the fall of 2000.

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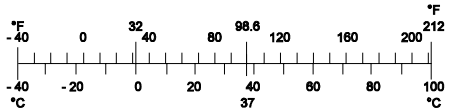
* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	millimeters	mm^2
ft^2	square feet	0.093	meters squared	m^2
yd^2	square yards	0.836	meters squared	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	kilometers	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	meters cubed	m^3
yd^3	cubic yards	0.765	meters cubed	m^3
NOTE: Volumes greater than 1000 L shall be shown in m^3.				
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000	0.907	megagrams	Mg
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5(F-32)/9	Celsius temperature	°C

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	millimeters	0.0016	square inches	in^2
m^2	meters squared	10.764	square feet	ft^2
ha	hectares	2.47	acres	ac
km^2	kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	meters cubed	35.315	cubic feet	ft^3
m^3	meters cubed	1.308	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.205	pounds	lb
Mg	megagrams	1.102	short tons (2000	T
		TEMPERATURE (exact)		
°C	Celsius	1.8 + 32	Fahrenheit	°F



* SI is the symbol for the International System of Measurement

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GRANTS PASS CASE STUDY INDIRECT LAND USE AND GROWTH IMPACTS

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1.0 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

This case study is part of a larger study sponsored by the Oregon Department of Transportation (ODOT) to quantify the impacts of its highway improvement projects on land use. Any significant highway improvement projects that ODOT undertakes will require Environmental Impact Statements (EISs), which in turn require an assessment of the improvements on land use. In addition, of course, to other environmental and socioeconomic impacts.

The larger study consists of three research components and a final report. The three research components are:

- *Literature Review.* Review of state and national studies to summarize empirical estimates of the relationship between highway and land use change, especially at the urban fringe.
- *20-Site Analysis.* Analysis of historical aerial photographs and highway maps to show the association between highway improvements and land use changes over 20 years in 20 Oregon cities.

Case Study Analysis. More detailed analysis of highway projects in four Oregon cities to try to explain the reasons for the observed change in land use and highways. The case study cities are Albany, Bend, Grants Pass and McMinnville.

This report is the case study analysis for the City of Grants Pass only. It does not try to generalize to other situations, or to integrate this case study with the other research. The final report will do that, and will include a summary of key findings of the literature review, the 20-site analysis, and all the case studies.

1.2 DESCRIPTION OF THE CASE STUDY HIGHWAY PROJECT

The Grants Pass case study evaluates the land use impacts associated with the construction of the Grants Pass Parkway. The Parkway is a 2.1-mile section of highway with four travel lanes, two shoulders, a median and a bridge over the Rogue River. The project's northeastern terminus was the interchange between Highway 199 and Interstate 5 at Foothill Boulevard east of Grants Pass. The project extended westward along Highway 199 until the "E-F" couplet where the project then provided a new alignment south across the industrial area. After crossing the Rogue River,

the project followed the Old Oregon California (C and OC) Railroad right-of-way to its southwestern terminus at the interchange between Highways 199, 99, and 238 south of downtown Grants Pass. The Grants Pass Parkway has additional access at Parkdale Drive south of the river and at "M" Street north of the river. Figure 1.1 shows the project location.

The Parkway provided a third crossing of the Rogue River in the Grants Pass area and a southeast bypass of downtown Grants Pass for traffic traveling between Interstate 5 and Highways 199 (Redwood Highway), 99 (Rogue River Highway), and 238 (Jacksonville/Williams Highway). The Redwood Highway serves traffic traveling from Crescent City, California, to Grants Pass and points north via Interstate 5; the Rogue River Highway links Grants Pass to the City of Rogue River to the east; and the Jacksonville Highway serves traffic traveling to Jacksonville and Medford. The Grants Pass Parkway also provides access to Riverside Industrial Area.

The Draft Environmental Impact Statement (DEIS) was completed in 1978, and the Final Environmental Impact Statement (FEIS) in 1979. The project construction began in 1989 and was completed in 1991. At the time the FEIS was issued, the alignment was within the Grants Pass city limits with the exception of small sections near each terminus. In 1982, after the Grants Pass Comprehensive Plan was acknowledged by the Land Conservation and Development Commission, the entire project corridor fell within the City's Urban Growth Boundary (UGB).

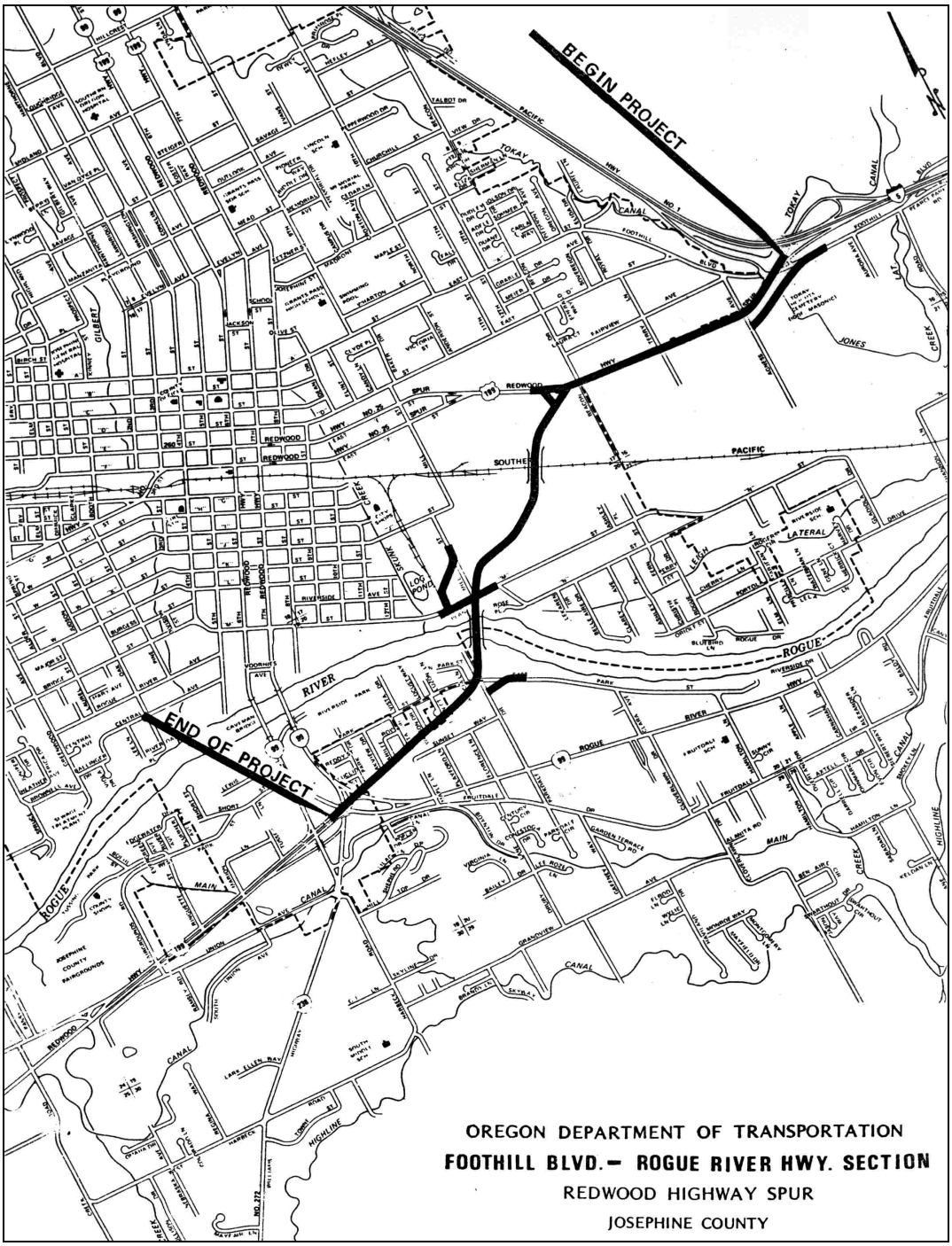

Figure 1.1: Project Location

Source: Final Environmental Impact Statement, Foothill Boulevard Rogue River and Redwood Highway, ODOT, 1979.

According to FEIS, the purpose of the project was to alleviate traffic congestion in downtown Grants Pass and on the existing 6th and 7th Street bridges. In addition to addressing traffic concerns, the FEIS stated that the project would: (1) contribute to the vitality of the downtown central business district, (2) improve access to the industrial area, (3) facilitate anticipated residential development south of the Rogue River (in the Fruitdale, Harbeck, and Redwood areas of Grants Pass), (4) increase local and regional accessibility (including better access for emergency services), (5) reduce accident rates in downtown Grants Pass, and (6) accommodate projected future traffic volumes. The project was also expected to result in a small decrease in travel time to areas north and south of the river.

The FEIS anticipated several cultural and environmental impacts of the project including: (1) greater potential for expansion of the industrial area; (2) geographic division of the Fruitdale neighborhood and a school attendance area; (3) greater use of two nearby city parks; and (4) negative aesthetic and noise impacts to adjacent properties. The FEIS did not expect the project to affect the housing supply or market. Physical environmental impacts described by the FEIS included removal of 20 acres of wildlife habitat for right-of-way, disruption of some fish-rearing habitat and a reduction in air pollution.

Regarding land use impacts, the FEIS stated that the project might increase the rate of residential development south of the river in the Harbeck-Fruitdale, South County, and Murphy planning areas (see Figure 1.2) and the rate of development along the Redwood Spur and Agness Avenue once sewer services became available. For these areas, the FEIS stated that the ultimate buildout would be the same regardless of the decision to build the project. The FEIS also expected the project to increase development pressure in the Redwood area. By facilitating development south of the river, the FEIS anticipated a reduction of development pressure on agricultural land on the north side of the river to the west of Grants Pass.

The FEIS described several potential economic impacts resulting from the project:

- Reduced traffic congestion and truck traffic through the Grants Pass central business district could allow existing commercial and public services in this area to remain and possibly expand.

- Through-traffic bypass of the central business district could lead to some downtown travel-oriented facilities (e.g., service stations) going out of business.

- Travel-oriented businesses at the "E-F" couplet and the interchange between the Redwood Highway and Interstate 5 could increase.

- Along the section of Grants Pass Parkway that passes through the residential neighborhood, residences could convert to multi-family residences or commercial operations provided zone changes were allowed.

- Better access to the industrial area may intensify industrial use.

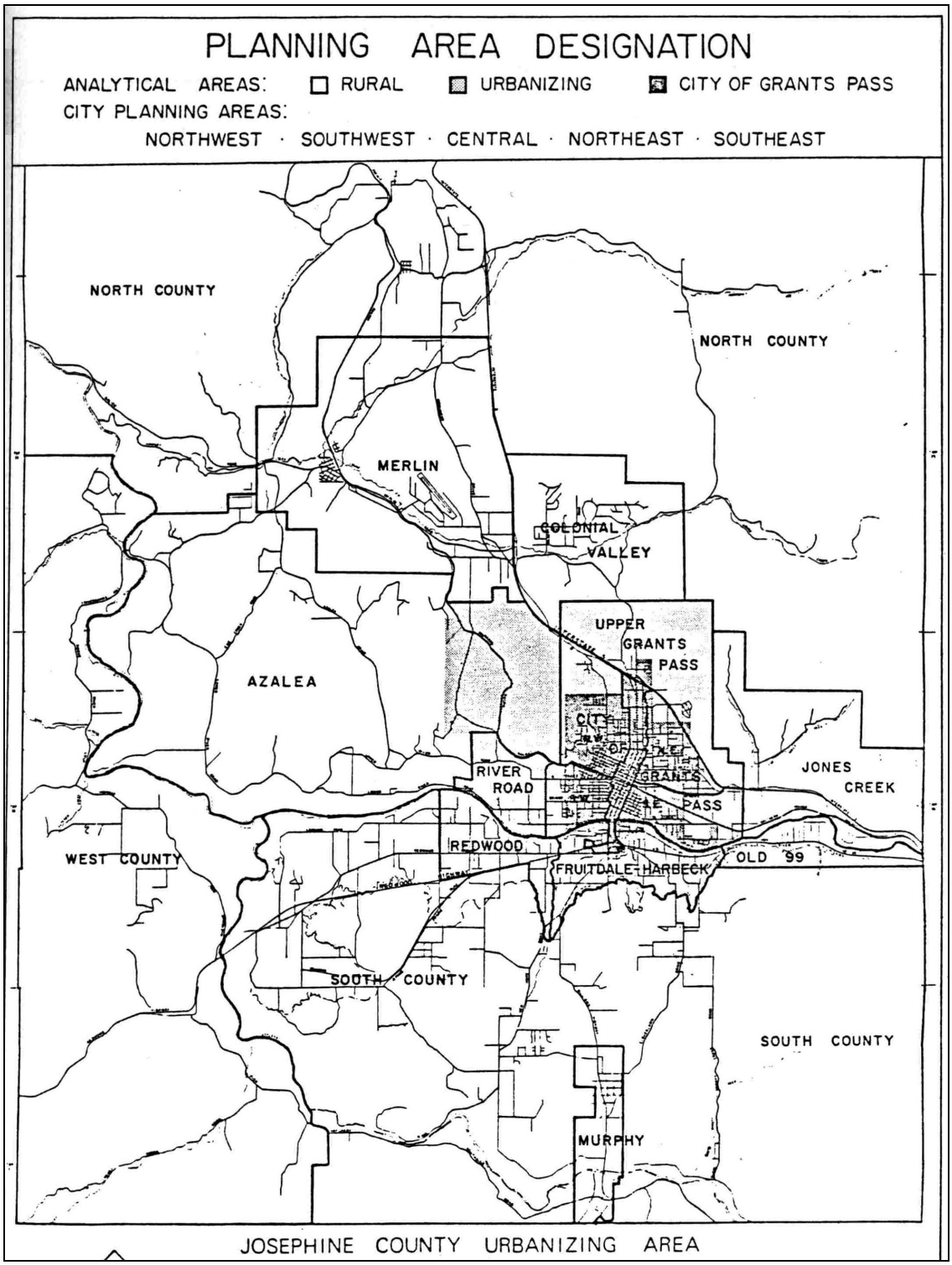

Figure 1.2: Planning Area Designations, Josephine County Urbanizing Area

Source: FEIS, Foothill Boulevard Rogue River and Redwood Highway, ODOT, 1979

Without the project, the FEIS indicated that the increased congestion along the existing Rogue River crossings could lead to division of the city into two autonomous commercial and public service centers to the north and to the south of the river.

In summary, the project was expected to have a number of beneficial impacts including: (1) less traffic congestion through the Grants Pass central business district and continued use of the district's commercial and public services; (2) improved access to the industrial area; (3) improved emergency services response; (4) improved traffic safety through the central business district; and (5) accommodation of future increases in traffic volume.

1.3 METHODS

The analysis in this report is both quantitative and qualitative. To conduct the baseline analysis, we reviewed EIS documents, comprehensive plans, development plans, and capital improvement project listings. Those sources are the basis for our description of existing conditions before the case study highway improvements.

As with most policy research, the intent of this case study is to be able to isolate the impacts (the effects) that are uniquely attributable to a change in public policy. Figure 1.3 illustrates the concept. The shaded box represents a world that does not exist, but one that an analyst must somehow describe. It is a world that *would have* existed but for the introduction of the new policy. As it relates to this case study, the construction of the Grants Pass Parkway is the policy. The case study can document, to the extent the data allow, what happened after that policy (box on bottom right). Describing what *would have happened* without the improvement (the shaded box) is more speculative. As applied to this case study, the method does not formally define a hypothetical world and compare it to an actual one. Rather, it relies on expert opinion about the contribution of the project to the changes observed between "Existing Conditions" (1979) and the "Actual World" (1999).

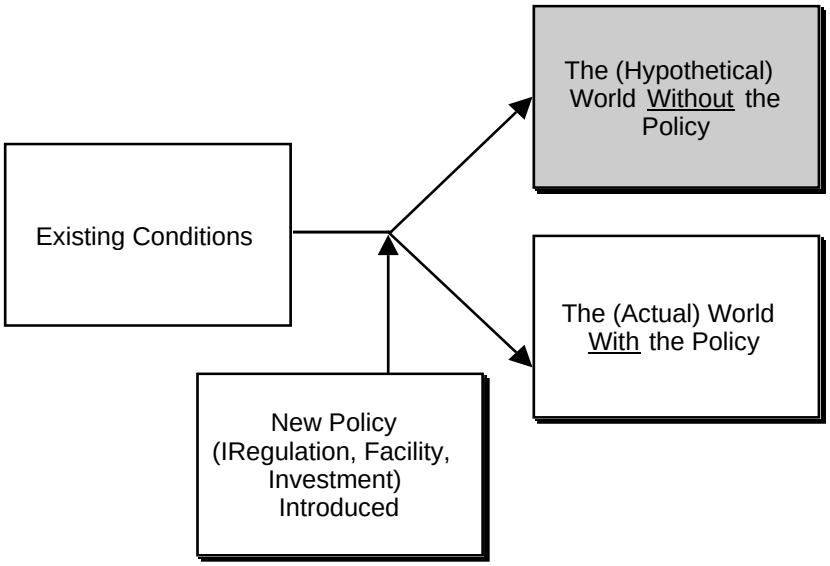

Figure 1.3: Case Study Method, In Concept

While the focus of the case study is on the Grants Pass Parkway, we also evaluated data citywide (within the Grants Pass UGB) to provide a broader picture of where development occurred and when. Without that larger context, it would be difficult to make judgements about whether the highway improvement caused changes in development patterns.

The study area is generally bounded by residential development to the north, Interstate 5 on the east, the Rogue River on the southeast, the Rogue River Highway on the southwest, the central business district on the west. The study area boundaries, shown in Figure 1.4, were established based on the reaches of the neighborhoods, as defined by similar land uses, surrounding the project corridor. Some of the study area lies outside the current city limits and a subset of this lies outside the current UGB. The study area land outside the city limits is primarily zoned for industrial and business park uses.

This report uses the following sources to describe changes in land use:

- Aerial photographs from 1970, 1980 and 1990.
- County property tax assessment data that allowed analysis and mapping of development by year.
- Capital improvement programs to identify the location and timing of transportation, water and sewer infrastructure projects.
- City planning documents that show changes in land use and identify public policy.

We describe the alternative future through a focus group. The group consisted of Grants Pass staff and others with knowledge of development patterns in the Grants Pass area. The purpose of the focus group session was to get comments on the preliminary conclusions made from review of secondary data sources, and to gain insights into the public policy decisions and market factors that contributed to the observed development patterns.

1.4 ORGANIZATION

This report is organized as follows:

- **Chapter 2: Existing conditions before the case study highway project** describes socioeconomic, land use, infrastructure and transportation patterns in Grants Pass at the time the project's FEIS was issued.
- **Chapter 3: Changes between 1979 and 1999** describes socioeconomic, land use, infrastructure and transportation changes in the study area and throughout Grants Pass.
- **Chapter 4: Conclusions** presents conclusions about the impact of the highway project on land use based on the data reviewed in Chapters 2 and 3.

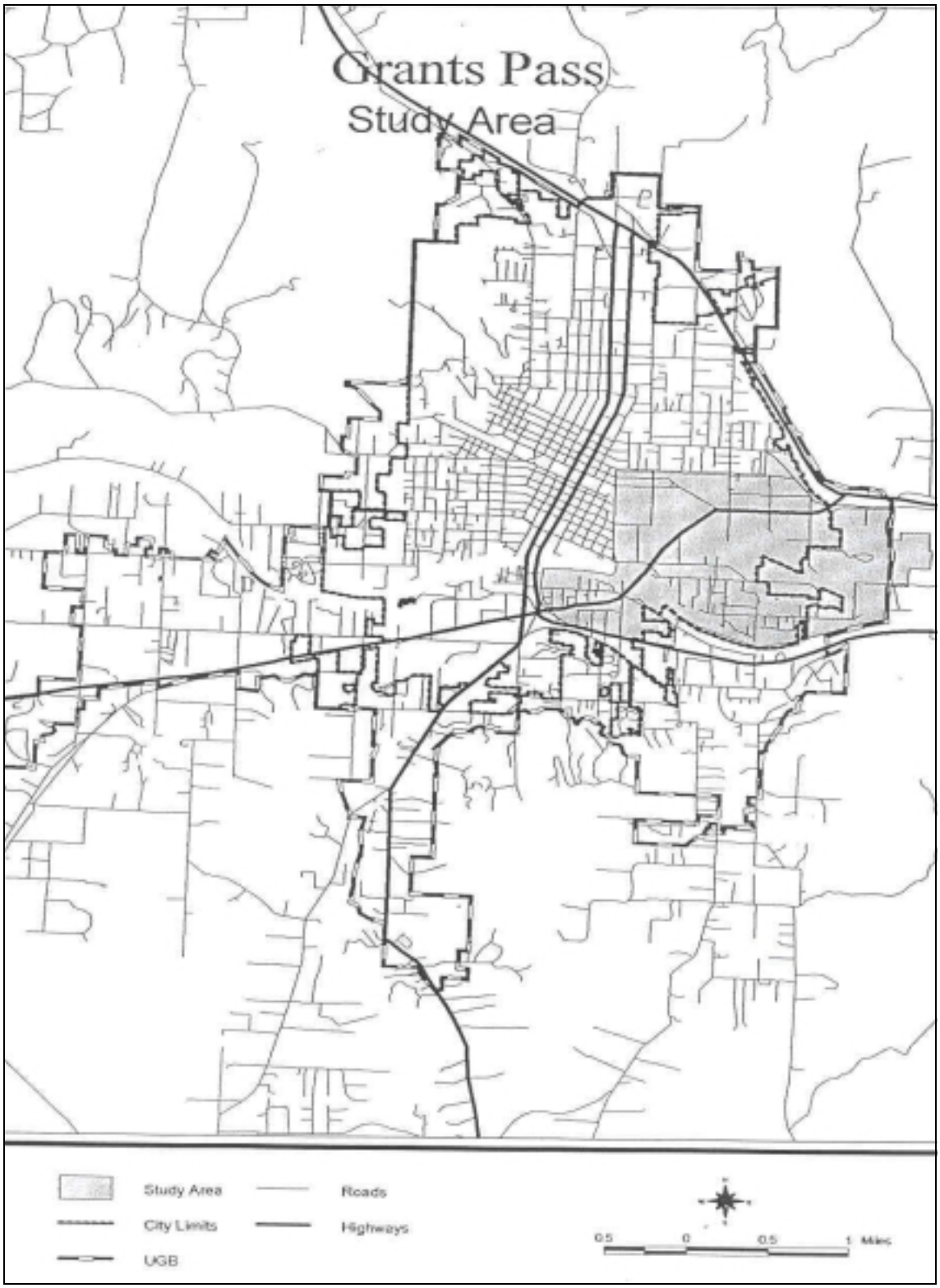

Figure 1.4: Study Area Boundaries

2.0 CONDITIONS BEFORE THE PROJECT

This chapter describes existing conditions in the case study area and Grants Pass when the project's Final Environmental Impact Statement (FEIS) was issued in 1979. The description of existing conditions primarily relies on data in the Final Environmental Impact Statement (FEIS). Secondary sources include 1976 ODOT Research Reports, the Josephine County Comprehensive Plan and interviews with City staff.

2.1 SOCIOECONOMIC CONDITIONS

In 1979, Grants Pass was the largest city and only urban area in Josephine County and was the county seat. Grants Pass served as a regional center in southern Oregon and possessed public facilities and services such as Rogue Community College, two hospitals, and emergency services.

The FEIS describes both the City of Grants Pass and Josephine County as geographically divided by the Rogue River. Most (85%) of the business, industry, and services facilities in Josephine County were located north of the river in or near the Grants Pass central business district. Rogue Community College was located south of the river about three miles west of Grants Pass on Redwood Highway. For population south of the river, Grants Pass was the most accessible urban area.

Table 2.1 shows historic and forecast population in Grants Pass and Josephine County between 1960 and 2000. According to the FEIS, Josephine County population grew 45.7% from 1970 to 1978, whereas the State of Oregon grew by 20.6%. In 1978, the county population was 52,100. In-migration, especially from California, contributed much of the growth. Many migrants were seniors attracted to the region's climate, scenic beauty, and recreational amenities. Most of the growth occurred in small, unincorporated communities. In 1970, 53.5% of the county's population resided north of the Rogue River, with the remainder living south of the river. In 1978, the population of Grants Pass was 15,000, a 20.4% increase since 1970.

The population forecasts made in the early to mid 1970s anticipated steady increases in population. In 1976, the Center for Population Research and Census at Portland State University forecasted population in year 2000 to be 71,600 for the county and 26,000 for Grants Pass. The ODOT Social Environment Research Report anticipated that about half of the county's population growth would occur north of the Rogue River. Subarea population analysis forecasted rapid population growth for the suburban areas south of the river and to the west and east immediately north of the river.

Table 2.1: Historic and Forecast Population in Grants Pass, FEIS

Year	Grants Pass Population	Josephine County Population
Historic		
1960	10,118	29,917
1970	12,455	35,746
1978	15,000	52,100
Change 1960-78	48.3%	74.1%
AAGR 1960-78	2.2%	3.1%
Projected		
1980	16,291	55,700
1990	20,966	66,300
2000	26,000	71,600
Change 1978-2000	73.3%	37.4%
AAGR 1978-2000	2.5%	1.5%

Source: Final Environmental Impact Statement, Foothill Boulevard Rogue River and Redwood Highway, ODOT, 1979

The FEIS reported that in 1970 86% of housing units in Grants Pass were single-family, 12% were multi-family, and 1% were mobile homes. By 1976, there were an increasing number of duplexes and apartments, particularly in Grants Pass. The number of mobile homes throughout the City and County were also increasing. A 1976 study by the Rogue Valley Council of Governments found that new construction had not kept up with housing demand, but market research for the FEIS did not indicate a shortage.

The FEIS describes the Josephine County economy as manufacturing, timber and tourism based. The County's income was expected to grow at an annual rate of 5.6% from 1970 to 1995 (not including inflation). The FEIS anticipated a shift in the economies of both Grants Pass and Josephine County from manufacturing to trade, government and service sectors by 1980. The Riverside Industrial Area (in the study area) was expected to grow from 181 acres in 1968 to 325 acres in 1985 and 412 acres in 1995.

Table 2.2 shows right-of-way impacts and costs as presented in the FEIS. As is typical of highway improvement projects, right-of-way acquisition displaced some residences and businesses. The project required 25 acres of right-of-way acquisition that was estimated in 1979 to have a value of $2.25 million. The FEIS estimated the assessed value of land removed from the property tax rolls at $412,400. Although the project would displace seven residences, the FEIS stated that the housing loss would not be large enough to affect the city's housing supply or market.

Table 2.2: Right-of-Way Structure Requirements and Total Costs

Requirement or cost	Value
Acres to be acquired	25
Properties affected	51
Displaced residences	7
Displaced businesses	1
Estimated right-of-way cost	$2,250,000
Construction costs	$6,265,000

Source: ODOT, 1979

2.2 LAND USE PATTERNS AND PLANS

2.2.1 LAND USE PATTERNS

In 1979, the project alignment was within the Grants Pass city limits with the exception of small sections near each terminus. According to the FEIS, Grants Pass had the largest concentration of commercial, industrial and residential land use in the county. Land to the west, northwest and southwest of Grants Pass was primarily agricultural. Land to the east, northeast, and southeast was mostly open land and forest. Land use was constrained by topography poor access and public ownership. Intermittent, small commercial and/or industrial uses concentrated in the town of Merlin, Murphy and the intersection of Redwood Highway and Fish Hatchery Road in the West County Planning District. Two locations, both small areas connected with Interstate 5, had developed into commercial use.

In 1979, the most recent residential development had occurred to the west and south of the Grants Pass central business district. Housing had increased in all sections except immediately north of the central business district along the 6th and 7th Street couplet (residential use was converting to commercial use). Between 1970 and 1975, 626 new residential units were built with 65 units being mobile homes.

Commercial strip development was common along the Highway 199 and the central business district. Industrial development was concentrated in two areas: the Riverside Industrial Area east of the central business district along the Southern Pacific Railroad tracks and the Airport Industrial Area north of Grants Pass. There was limited industrial development southwest of the 6th and 7th Street bridges along the Redwood Highway and in the vicinity of the Interstate 5 interchange east of Grants Pass. Commercial activity had decreased slightly in the zones just southeast of the existing bridges. The Grants Pass urban area had 263 acres of vacant land with 40 acres in the flood plain and the rest buildable and mostly zoned for industrial or residential purposes.

The project alignment was within the Grants Pass city limits and could be roughly divided into thirds corresponding to adjacent land uses (see attached map). The northeast third of the project corridor followed the Redwood Highway (primarily commercial land use), the middle third

passed through the Riverside Industrial Area, and the southwest third followed the old Oregon California (C and OC) Railroad right-of-way through the Fruitdale neighborhood.

In 1979, the development pattern along Highway 199 at the eastern end of the project area was already beginning to exhibit commercial strip characteristics. The industrial area included an electronics plant, a sand and gravel operation, some lumber and wood products activity, and several residences. The Fruitdale neighborhood consisted of 215 single-family residences; most of these homes were built in the 1940s and were moderately priced. Baker Park was located adjacent to the project's southwestern terminus.

2.2.2 LAND USE DESIGNATIONS

At the time the FEIS was issued in 1979, Grants Pass did not have an acknowledged comprehensive land use plan. The City, however, was scheduled to complete their draft comprehensive plan in 1980 and had initiated work on the plan prior to the FEIS. A proposed urban growth boundary (UGB) had been designated and was scheduled for adoption by the city and county in August 1979. Josephine County planned to submit their comprehensive plan in 1980.

Figure 2.1 shows zoning designations in the Grants Pass Urban Area. The FEIS stated that development was expected to continue along current trends provided that zoning did not change. There were no prime or unique farmlands along the project corridor.

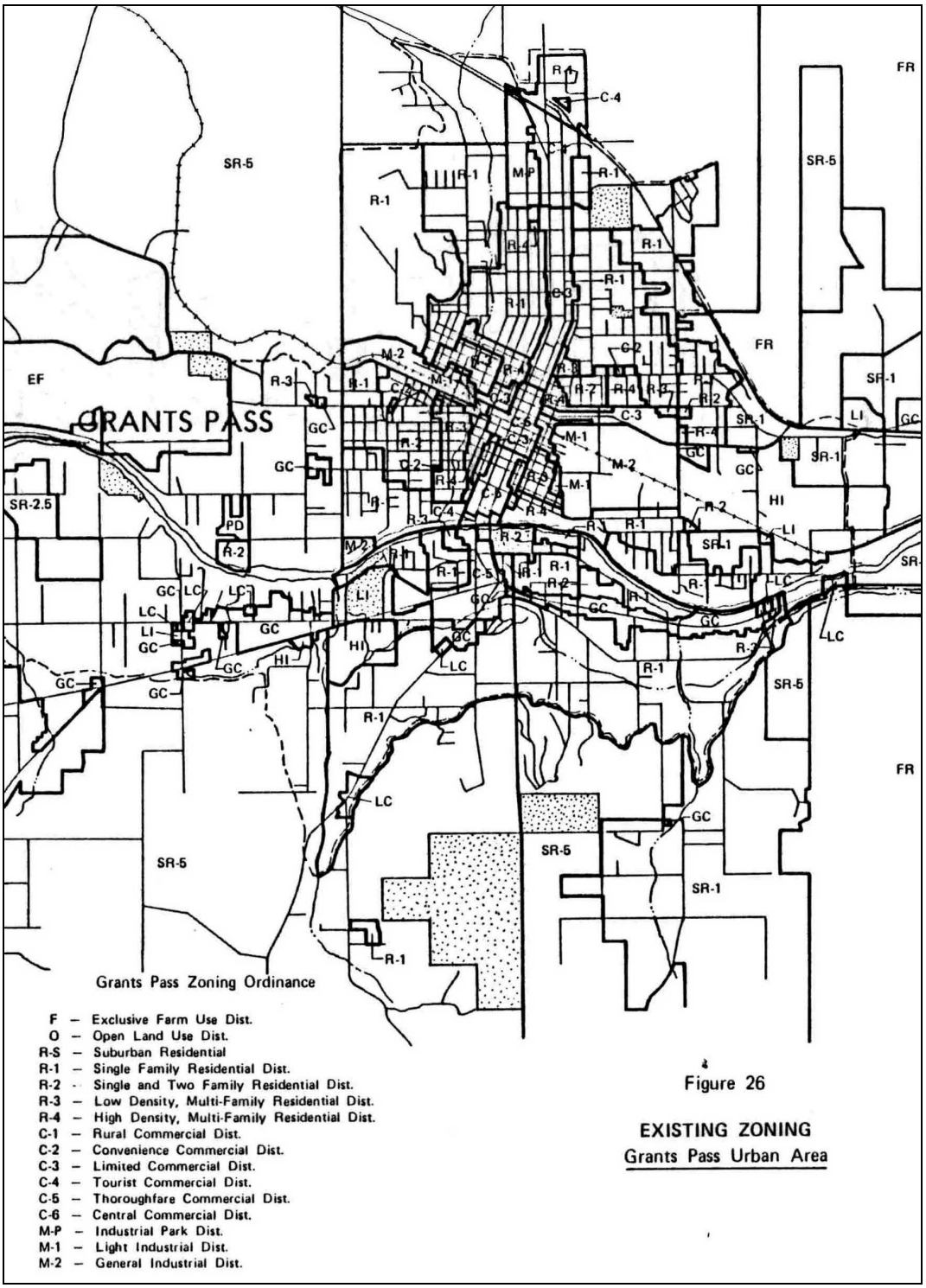

Figure 2.1: Zoning in Grants Pass Urban Area, 1979
Source: FEIS, ODOT, 1979

2.3 TRANSPORTATION SYSTEM CHARACTERISTICS

The FEIS described a history of public concern about traffic volume and congestion along 6th and 7th Streets dating back to 1961. The two one-way, two-lane bridges along 6th and 7th Streets provided the only access across the Rogue River within the Grants Pass urban area. In addition, the Riverside Industrial Area east and adjacent to the central business district contributed to undesirable truck traffic, including large logging trucks, through downtown. According to the FEIS, traffic congestion tended to inhibit downtown shopping and pedestrian traffic, downtown Grants Pass had a high accident rate, and there were instances where emergency vehicles could not cross the river during rush hour. In addition, traffic volumes had exceeded the design capacity of the 6th and 7th Street bridges by 1970.

The FEIS estimated that between 8% and 10% of the total traffic traveling across the 6th and 7th Street bridges would bypass Grants Pass if given the opportunity. A substantial amount of traffic was through-traffic traveling from the Illinois Valley or the California Coast to Medford or other locations in southern Oregon.

In 1965, the Oregon State Highway Department performed an origin-destination study in Josephine County. The study indicated that traffic congestion existed in many areas and would increase at a rapid rate. The study was the first to propose a third bridge and listed the current Grants Pass Parkway alignment as an option. During the time between the origin-destination study and the FEIS, involvement of private citizens and local government on the project was extensive and intense. According to the FEIS, local support for a third bridge was nearly unanimous.

Table 2-3 shows historical and forecasted average weekday traffic for 6th and 7th Streets, the Grants Pass Parkway and connecting streets. The FEIS predicted that traffic volume across the Rogue River would increase 46% by 1995. The FEIS indicated that the project would cause more traffic to use the east interchange of I-5 and less traffic to use the north interchange with I-5.

The FEIS did not expect the project to significantly reduce travel times to cross the Rogue River since they were on the order of a few minutes. The FEIS predicted that some truck traffic would be diverted from downtown, but the amount would be small since many trucks may need to stop in town. The FEIS assumed that the percentage of trucks in the traffic was independent of the project being built.

Table 2.3: Historical and Forecasted Average Daily Traffic, Grants Pass Parkway and Connecting Roads

Location	1976	Forecasted without project 1995	Forecasted with project 1995
6th Street			
North of NW Morgan Ln	7,800	11,400	8,300
North of E St	12,900	18,700	15,600
North of M St	19,000	29,000	17,500
Bridge	24,000	35,000	24,900
7th Street			
North of NW Morgan Ln	7,800	11,400	8,300
North of E St	12,900	18,700	15,600
North of M St	19,000	29,000	17,500
Bridge	24,000	35,000	24,900
Grants Pass Parkway			
East of Terry Ln	8,500	12,700	22,300
North of M St	N/A	N/A	23,000
East of Parkdale Dr	N/A	N/A	20,200
E and F Street couplet	15,000	22,200	12,800
M Street	8,000	11,600	10,400
Redwood Highway west of interchange	19,500	29,500	29,500
Jacksonville Highway south of interchange	9,500	13,700	13,700
Rogue River Highway east of interchange			
West of Clara Ave	14,000	21,400	21,400
East of Clara Ave	9,500	14,300	14,300

Source: FEIS, ODOT, 1979.

Table 2.4 shows historical and forecasted level of service in the area. In 1979, the 6th Street Bridge had a level of service (LOS) of D during peak hours, while the 7th Street Bridge had an LOS of C. The FEIS expected both bridges would decrease to LOS F by 1995 without the Third Bridge.

Table 2.4: Historical and Forecasted Intersection Level of Service (LOS)

Intersection	LOS during peak hours, 1979	Forecasted LOS during peak hours, 1995
6th St and M St	D	F
7th St and M St	C	F
Redwood Highway intersection	C	C (with two ramps at F)

Source: FEIS, ODOT, 1979

2.4 PUBLIC SERVICES

According to the FEIS, water and sewer was almost mandatory for development in the Grants Pass area because soils, topography, and geology were generally unsuitable for subsurface disposal systems. In 1972, 40% of the county population was served by water systems with the remainder served by wells. The municipal water and sewer systems were within the Grants Pass city limits. Service extensions were proposed for the north (Upper Grants Pass) and west (River Road) of Grants Pass.

The project study area was partially serviced at the time the FEIS was completed in 1979. According to City staff, water and sewer services extended along Highway 199 eastward and ended at Beacon Drive. The provision of water and sewer facilities was proposed in the vicinity of the Redwood Spur and Agness Avenue near the project's northeastern terminus, upon which the FEIS anticipated rapid development to follow.

In 1979, the Harbeck-Fruitdale District was 80% to 85% served by sewer systems. Most of the properties not serviced by sewer systems were near or south of the South Highline Canal. Sewer systems for this area were expected for the near future, with the anticipated result being urban densities throughout the Harbeck-Fruitdale Service District. The majority of the Redwood area development used individual septic tanks. Permits for this area were difficult to obtain. A limited capacity line sewer was constructed east of Darnielle Road in the late 1970s, and the FEIS expected it to serve about 45% of the development. The Environmental Protection Agency had denied approval for a larger capacity sewer main system to serve properties west of Darnielle Road.

2.5 PUBLIC POLICY

In 1979, the comprehensive plans for Grants Pass and Josephine County had not been acknowledged by the Land Conservation and Development Commission. The FEIS described the policies of Grants Pass and Josephine County in 1979, and we have incorporated the specifics in previous sections of this chapter.

3.0 CHANGES AFTER THE EIS WAS COMPLETED

This chapter discusses changes in land use, and in the variables that influence those changes, in the period following issuance of the Final Environmental Impact Statement (FEIS) in 1979. Construction of the Grants Pass Parkway began in 1989 and concluded in 1991. Organization of this chapter is identical to that of Chapter 2: it begins with a discussion of socioeconomic conditions, then discusses land use patterns, transportation systems, capital improvements and changes in public policy.

3.1 SOCIOECONOMIC CONDITIONS

Actual changes in socioeconomic conditions in the City of Grants Pass were somewhat different than those described by the FEIS. In 1976, the Center for Population Research and Census forecasted the population of Grants Pass to increase by 73% between 1978 and 2000 to 26,000; as of 1997, the Grants Pass population had only increased 40% to 20,535 as shown in Table 3.1. On the other hand, the anticipated increase in Josephine County population of 37% by year 2000 to 71,600 more closely matches the actual increase of 40% to 73,000 by 1997.

Table 3.1: Population Trends in Grants Pass and Josephine County

	Population	
Year	**Grants Pass**	**Josephine County**
1978	15,000	52,100
1980	15,032	58,855
1990	17,503	62,649
1997	20,535	73,000
% Change	40%	40%
Average Annual Growth Rate	1.7%	1.8%

Source: U.S. Census, Center for Population Research and Census

In Josephine County, the single family residence was the predominant housing type accounting for 69% of housing in 1990; but this proportion dropped from 88% in 1970, primarily because of a shift from 5% mobile homes in 1970 to 23% in 1990. In Grants Pass, single family residences decreased from 86% in 1970 to 67% in 1990, possibly from increases in both multi-family units and mobile homes. The proportion of owner-occupied housing units in Grants Pass decreased from 65% in 1970 to 51% in 1990.

According to the Oregon Employment Department, Josephine County's economy has shifted away from logging and timber products manufacturing and towards retirement and tourism during the past twenty years. In 1998, a long-time sawmill in Grants Pass announced its closure. Non-timber related manufacturing employment has slightly declined over the past ten years, due primarily to a cutback in defense-related electronic equipment a few years ago. The decline in manufacturing was offset some in 1997 with the opening of a recreational vehicle plant north of Grants Pass. Since 1990, Josephine County nonmanufacturing employment increased 30% with more than two-thirds of that growth occurring in trade and services. The opening of a youth

correction facility in Grants Pass (in the study area) in 1997 added about 90 state government jobs.

3.2 LAND USE PATTERNS

One of the key objectives of this analysis is to document land use changes in the study area (and more broadly, the City of Grants Pass) during two periods: between the completion of the FEIS and construction of the project (1979-1991), and after the project was completed (1991-present). To determine changes in land use, we looked at a number of indicators including (1) UGB expansions and annexations, (2) zone and plan designation changes, (3) subdivision approvals, and (4) location of new development. Key conclusions are:

- *UGB expansions and annexations.* According to the focus group participants, Grants Pass had three minor UGB expansions in the since the EIS was completed in 1979. The three expansions added less than 10 acres to the UGB. The UGB expansions occurred at points north, south and southwest of the City.

  Grants Pass does not have a database of annexations, so a long-time member of the City staff recalled the annexations and designated their location and year of annexation on a City map. Annexations since 1980 are shown in Figure 3.1. Based on this data, about 24 annexations occurred before the Parkway was completed, nine of which were in the study area. An additional 24 annexations occurred after the Parkway was built, but only one of these was in the study area. The annexations in the study area incorporated commercial, industrial and high-density residential land to the east, and commercial and medium- and high-density residential land near the project's southwest terminus.

- *Zone and plan designation changes.* A review of current (late 1997) plan designation maps showed that the City has not made any major changes in plan designations in the study area since the City's Comprehensive Plan was acknowledged in 1982. A review of zoning maps showed that the City has made several minor zone changes in the study area since 1982. The zone changes involved the redesign of the Industrial and Business Park zones within the industrial area and the creation of the Riverfront Tourist Commercial (RTC) zone at the intersection of Grants Pass Parkway and East Park Street.

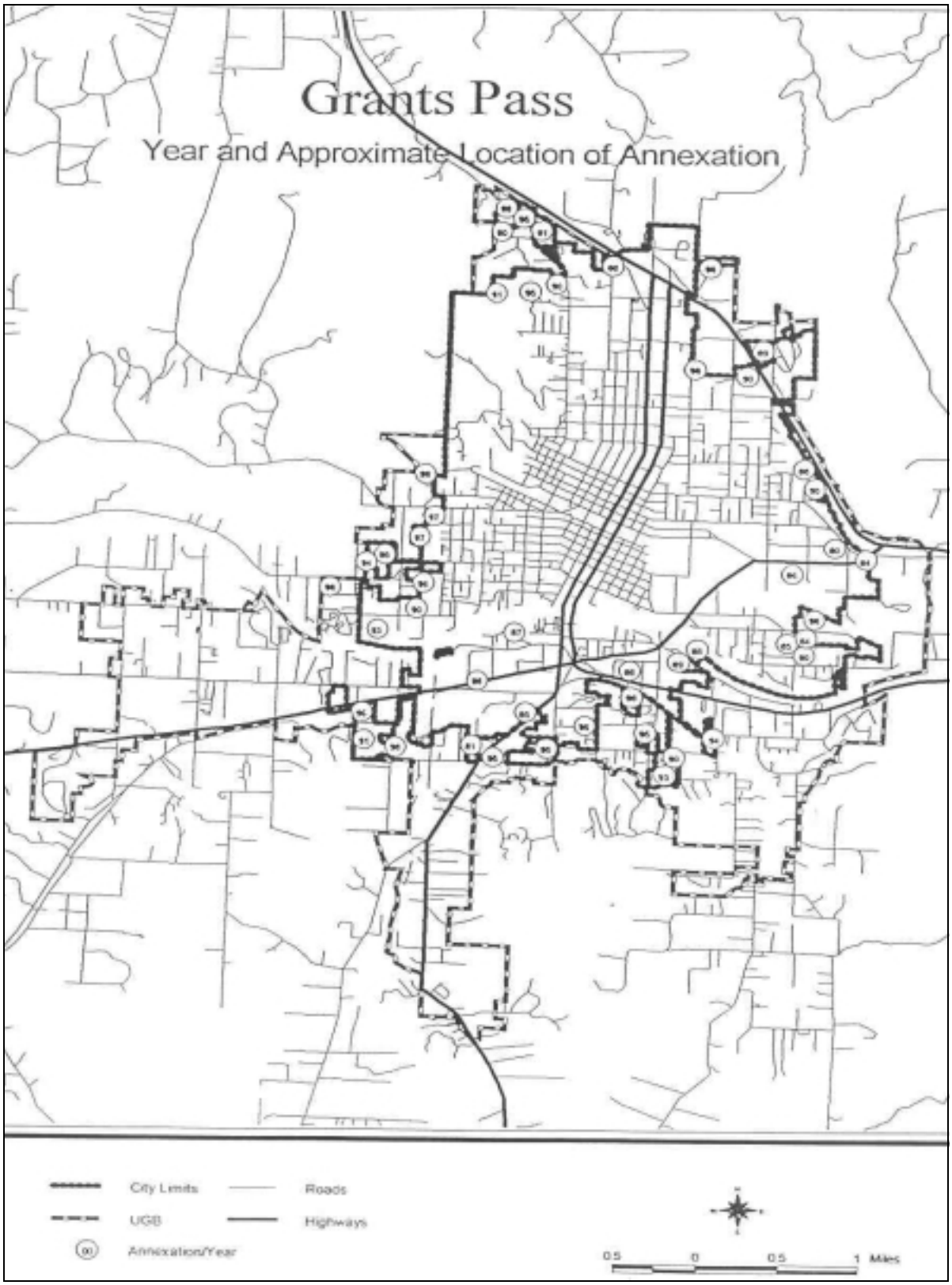

Figure 3.1: Annexations in Grants Pass and The Study Area, 1980 to 1999

- *Subdivision approvals.* Since 1990, the City has approved 87 subdivisions creating a total of 1,517 new lots consisting of 437 acres. As shown in Figure 3.2, the location of new subdivisions has been dispersed throughout the City. Thirteen of the approved subdivisions are located in the study area, creating 109 new lots consisting of 29 acres.

- *Year-built from assessment records.* The Josephine County Assessor keeps records on the year improvements are recorded on tax lots. This data is not entirely reliable, but provides one indicator of the timing and location of residential uses. Year-built data combined with building permits provides a relatively accurate assessment of development trends.

  Figure 3.3 shows the number of single-family dwelling units built in Grants Pass and the study area by decade. The study area accounted for approximately 12% of all single-family residences in Grants Pass in 1998. Development between 1990 and 1998 accounted for 16% of all single-family residential development in Grants Pass, however only 6% of this development occurred in the study area. Much of the residential development since 1990 has occurred southwest, west, and north of the City.

  The study area has about 14% of the total residential land area in Grants Pass; these figures roughly correspond with the ratio of number of single-family residences. Further analysis of vacant land based on property classifications indicates that the study area contained about 5% of vacant residential land in 1998.

  Table 3.2 shows development by year and use for Grants Pass and the study area. The data show that 8% of single-family residential development in Grants Pass between 1980 and 1997 occurred in the study area. About 31% of commercial tax lots were developed in the study area between 1980 and 1997, while no industrial tax lots were developed in the study area. In 1998, the study area contained about 40% of vacant industrial land. Table 3-3 shows acres developed by type of land use in Grants Pass between 1980 and 1997. The acreage data corresponds to the trends identified by the tax lot data.

- *Aerial photo analysis of development patterns.* Figure 3.4 shows development patterns for various periods in Grants Pass based on photo interpretation. The aerial photos show that development occurred in many areas of the city – not just the study area – before and after the project was completed.

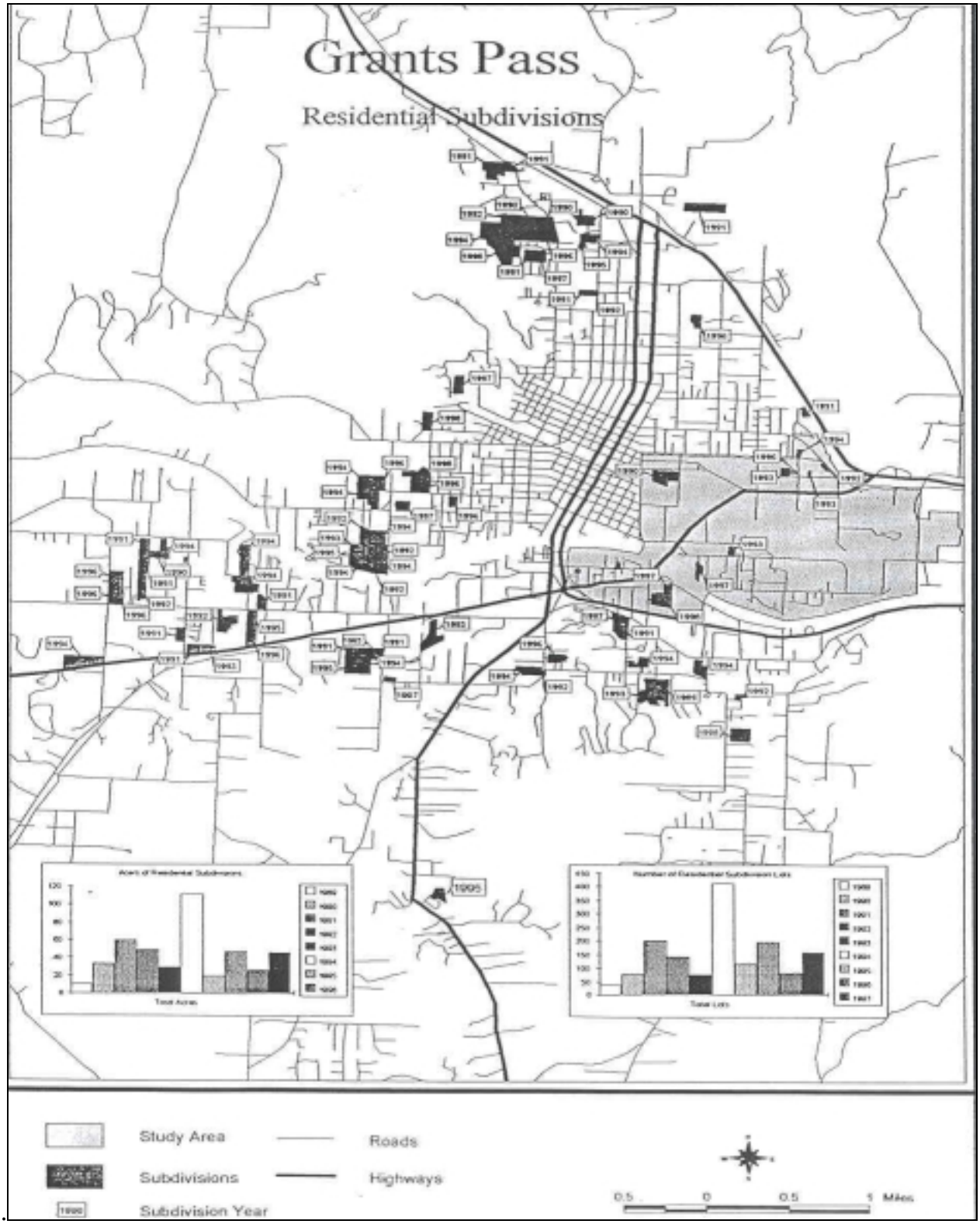

Figure 3.2: Subdivisions Approved in Grants Pass and The Study Area, 1990 To 199

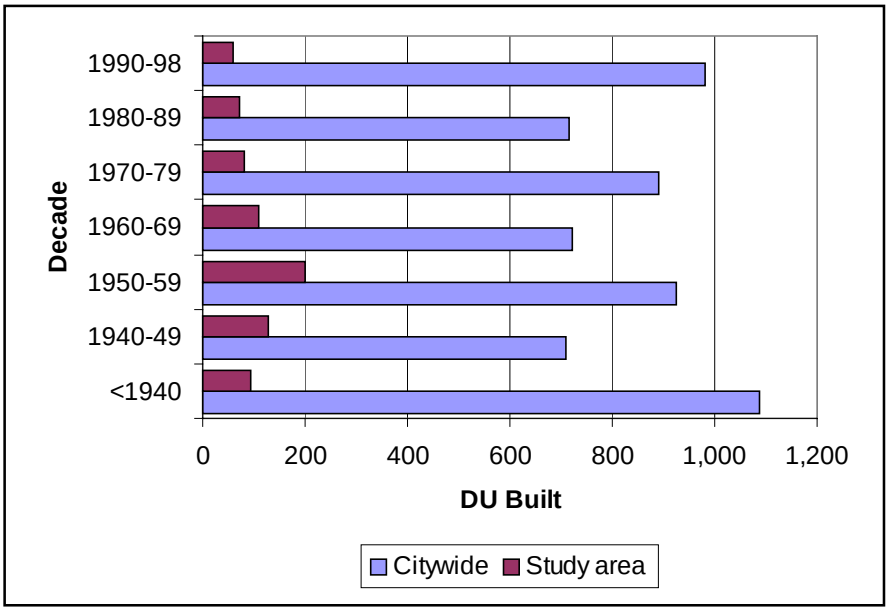

Figure 3.3: Single-Family Dwelling Units by Year Built in Grants Pass and the Study Area
Source: Josephine County Assessment Data, 1998

Table 3.2: Number of Developed Tax Lots, by Year Built and Use, Grants Pass, 1980 to 1997

	Residential		Commercial		Industrial	
Year	**Citywide**	**Study Area**	**Citywide**	**Study Area**	**Citywide**	**Study Area**
Before[a] 1980	**4,332**	**610**	**1,060**	**100**	**192**	**89**
1980	88	5	4	-	-	-
1981	79	8	4	-	-	-
1982	52	5	-	-	-	-
1983	57	4	7	1	-	-
1984	42	15	5	2	-	-
1985	72	7	2	-	-	-
1986	86	5	1	-	-	-
1987	72	11	1	-	1	-
1988	82	6	6	2	-	-
1989	85	6	5	2	-	-
1990	100	6	2	-	-	-
1991	52	5	-	-	-	-
Total 1980-91[b]	**867**	**83**	**37**	**7**	**1**	**0**
1992	164	12	1	1	-	-
1993	145	6	-	-	-	-
1994	156	16	5	4	-	-
1995	135	6	2	1	-	-
1996	150	4	5	2	-	-
1997	78	4	4	2	-	-
Total 1992-97	**828**	**48**	**17**	**10**	**0**	**0**
Total	**6,027**	**741**	**1,114**	**117**	**193**	**89**

[a] The EIS was completed in 1979
[b] The project was completed in 1991
Source: Josephine County Assessment Data, 1998

Table 3.3: Acres Developed by Type of Land Use, Grants Pass, 1980 to 1997

Land Use	Citywide		Study area		Ratio of Study area to City	
	Number of Tax Lots	Acres	Number of Tax Lots	Acres	Number of Tax Lots	Acres
Before 1980 (Pre-EIS)						
Single Family Residential	4,332	1,050.7	610	160.7	14.1%	15.3%
Commercial	1,060	587.8	100	123.4	9.4%	21.0%
Industrial	192	495.5	89	393.6	46.4%	79.4%
1980-91 (Post-EIS/Pre-Development)						
Single Family Residential	867	204.4	83	19.1	9.6%	9.3%
Commercial	37	35.4	7	8.2	18.9%	23.1%
Industrial	1	3.2	0	0.0	0.0%	0.0%
1992-1998 (Post development)						
Single Family Residential	829	182.0	48	14.0	5.8%	7.7%
Commercial	17	17.8	10	11.9	58.8%	66.5%
Industrial	0	0.0	0	0.0	0.0%	0.0%
Totals						
Single Family Residential	6,028	1,437.0	741	193.8	12.3%	13.5%
Commercial	1,114	641.1	117	143.5	10.5%	22.4%
Industrial	193	498.7	89	393.6	0.0%	78.9%

Source: Josephine County Assessment Data, 1998

- *Value of land and improvements.* Table 3-4 shows the value of residential sales and land for Grants Pass and the study area between 1980 and 1998. The average value of residential sales in the study area has varied widely from year to year since 1979, but the fluctuations reflect Citywide trends.

Table 3.4: Land Value of Developed Residential Lots, Grants Pass, 1980-1997

	City Totals			Study Area		
Year	Number of Sales	Avg. Sales Price	Land Value ($/sq ft)	Number of Sales	Avg. Sales Price	Land Value ($/sq ft)
Before 1980	4115	65,011	$3.36	576	62,703	$2.98
1980	88	78,344	$2.96	5	83,400	$2.25
1981	79	78,137	$3.31	8	84,450	$2.64
1982	52	76,020	$3.49	5	78,800	$3.68
1983	57	76,663	$3.17	4	97,833	$3.13
1984	42	73,974	$2.89	15	49,940	$1.94
1985	72	81,899	$3.38	7	89,450	$3.88
1986	86	73,463	$3.85	5	86,600	$3.62
1987	72	80,309	$3.10	11	84,450	$2.72
1988	82	75,618	$2.99	6	62,400	$1.31
1989	85	77,087	$2.99	6	60,083	$2.85
1990	100	90,087	$3.20	6	83,800	$3.39
1991	52	78,997	$2.82	5	64,550	$5.06
1992	164	93,034	$3.13	12	87,516	$3.15
1993	145	93,967	$3.41	6	139,463	$2.49
1994	156	87,013	$3.82	16	109,731	$4.10
1995	135	84,428	$3.83	6	22,243	$0.61
1996	150	79,697	$3.44	4	17,500	$0.12
1997	78	111,514	$6.87	4	144,175	$8.70

Source: Josephine County Assessment Data, 1998

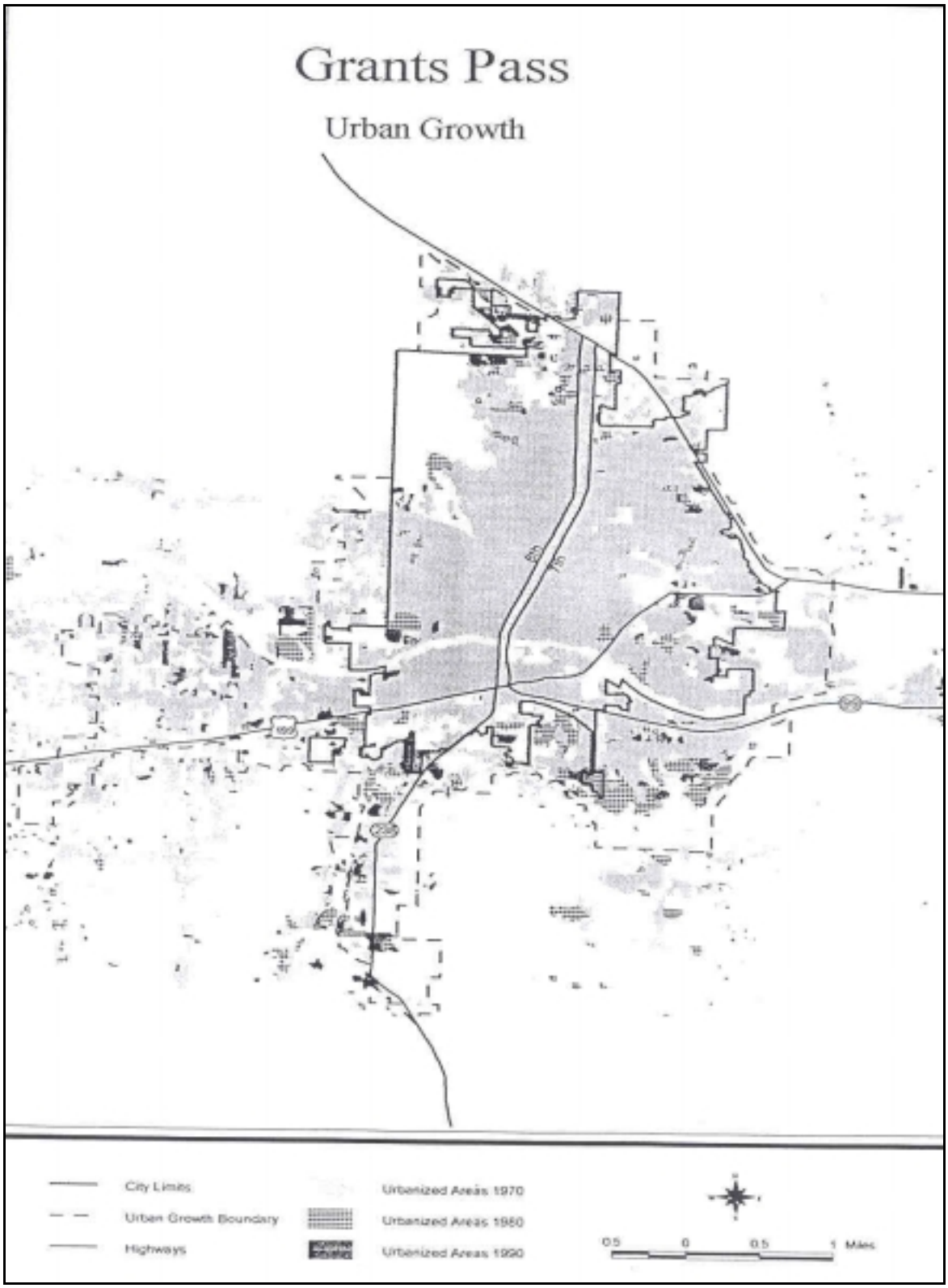

Figure 3-4: Development Patterns in Grants Pass

- *Specific commercial, industrial and institutional development in the study area.* The preceding data show that since the highway improvement was completed in 1991, the study area has experienced concentrated commercial development, slight residential development and no industrial development.

  Focus group participants described the commercial development pattern along the Redwood Spur as underway before construction of the Grants Pass Parkway began. This section of highway currently has several discount retail stores (e.g., Fred Meyer, Walmart and Big Five Sporting Goods), restaurants (e.g., Shari's and McDonalds), hotels (e.g., Holiday Inn Express), grocery stores (e.g., Albertson's and Grocery Outlet), and other commercial establishments. Figure 3.5 shows the location and year opened for several businesses along the Redwood Spur portion of the Grants Pass Parkway.

  According to the focus group, the commercial buildout along this section of the Parkway is about two-thirds full, and there is a major vacancy at the old Ernst site at the eastern terminus of Highway 199.

  Focus group participants also indicated that the Redwood Spur area would have likely developed as a commercial strip without the construction of the Grants Pass Parkway. The area had several locational advantages that make it desirable for commercial development: good access to the Interstate, a large inventory of vacant land, good proximity to downtown and population centers in Grants Pass, and considerable through traffic. Moreover, the City had designated that area for that type of development prior to construction of the Parkway. The impact of the Parkway was to enhance the strip’s locational advantages by improving access from areas south of the Rogue River. A focus group participant recalled that consideration of the yet-to-be built Grants Pass Parkway may have been a determining factor in the decision of the Big Five Sporting Goods store to locate there.

  The only development in the Riverside Industrial Area was the construction of a state juvenile corrections institution in 1997. The focus group participants describe the lack of new development in the Riverside Industrial Area as "disappointing." They indicated that some industries have chosen to locate in Merlin's North Valley Industrial Area instead of in Grants Pass because Merlin has inexpensive industrial land and easy access to I-5, and does not have taxes or development codes. The focus group participants said that land in the Riverside Industrial Area was for sale at "commercial prices" because a few people own a significant amount of the land. The focus group participants indicated that some industrial land in the study area has been developed for commercial uses. The focus group participants pointed to the juvenile corrections center and other human services as representative of new development in the area. Longstanding industries such as Litton (high technology) are rumored to be considering leaving the area.

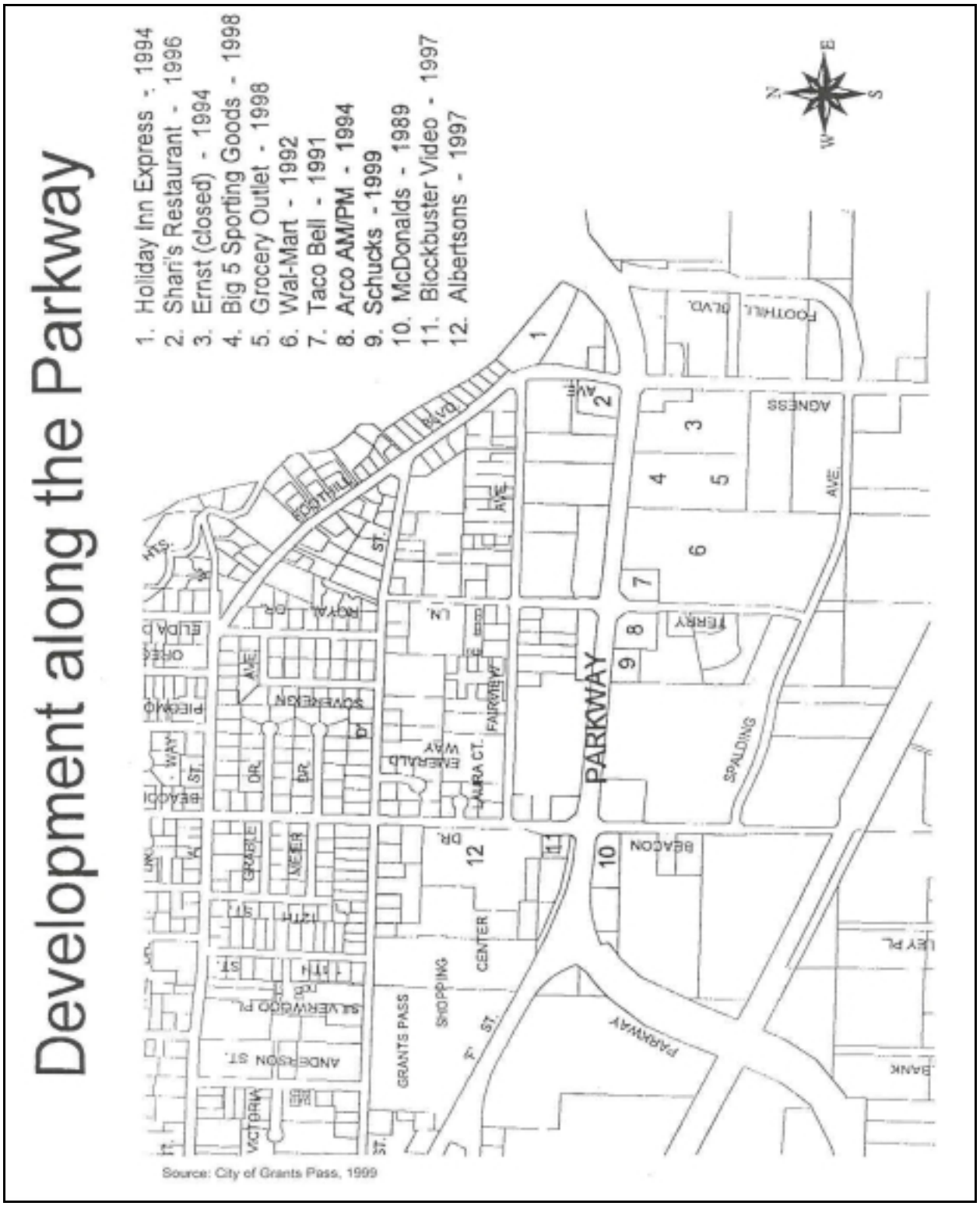

Figure 3.5: Development Along the Redwood Highway Spur Section of the Grants Pass Parkway (Source: City of Grants Pass)

3.3 TRANSPORTATION SYSTEM CHARACTERISTICS

Planned improvements to the local transportation system can affect land use patterns. Statewide planning goal 12 requires all communities with populations over 2,500 to complete a transportation systems plan (TSP). A TSP identifies key transportation issues and transportation improvements to address those issues.

The Grants Pass Urban Area Master Transportation Plan (MTP) was completed in 1997. The MTP reported that in 1994 the majority of the roadways in the Grants Pass Urban Area operated at Level of Service (LOS) "B" or better. Segments operating at LOS "C" included 7th Street between A Street and Evelyn Street north of the central business district and the 6th Street bridge. Only one road was operating at LOS "D": the 7th Street bridge. The highest 1994 accident rates occurred on F Street between 6th and 7th Streets and J Street from 7th to 9th Streets.

City officials identified a potential problem with traffic congestion along the Redwood Highway west of Interstate 5 prior to the construction of the third bridge. Table 3.5 shows average daily traffic volumes on 6th and 7th Streets, the Grants Pass Parkway, and connecting roads in 1976 and 1995. The data show changes in traffic volume since 1976 ranging from 148% on the Grants Pass Parkway east of Terry Lane (near the interchange with I-5) to -20% on the Rogue River Highway. The FEIS traffic forecasts were between -48% and 33% of the actual values. Traffic volume across the Rogue River were forecasted within 1% of the actual 1995 values. Data from ODOT indicate that vehicle miles traveled in Josephine County increased only 9% between 1990 and 1997 – about half the rate of population growth during the same time period. Focus group participants stated that the project has been successful in improving access in Grants Pass across the Rogue River and that people no longer dread crossing the river.

- *Major local road improvements.* The need for local highway improvements can also be affected by a major highway project. The City of Grants Pass Capital Improvements Projects/Preliminary Listing (1982) included projects in the vicinity of the Grants Pass Parkway corridor to provide third bridge interim routes, provide access to the industrial area and accommodate expected traffic increases with the completion of Grants Pass Parkway and commercial growth. These projects included the creation of Spaulding Avenue within the Riverside Industrial Area and are shown in Figure 3-6. Focus group participants also indicated strong programs to enhance roads parallel to 6th and 7th Streets and the Parkway. For example, N and E Streets were improved from downtown to I-5 after completion of the FEIS.

Table 3.5: Average Daily Traffic, Grants Pass Parkway and Connecting Roads, 1976 and 1995

Location	1976	1995	% change 1976 to 1995	% diff. between forecasted and actual 1995
6th Street				
North of NW Morgan Ln	7,800	8,600	10%	4%
North of E St	12,900	19,100	48%	22%
North of M St	19,000	16,700	-12%	-5%
Bridge	24,000	21,300	-11%	-14%
7th Street				
North of NW Morgan Ln	7,800	8,100	4%	-2%
North of E St	12,900	18,700	45%	20%
North of M St	19,000	17,300	-9%	-1%
Bridge	24,000	21,200	-12%	-15%
Grants Pass Parkway				
East of Terry Ln	8,500	21,100	148%	-5%
North of M St	N/A	19,900	N/A	-13%
East of Parkdale Dr	N/A	26,800	N/A	33%
Redwood Highway west of interchange	19,500	36,400	87%	23%
Jacksonville Highway south of interchange	9,500	15,500	63%	13%
Rogue River Highway east of interchange				
West of Clara Ave	14,000	11,200	-20%	-48%
East of Clara Ave	9,500	7,700	-19%	-46%

Sources: FEIS, Foothill Boulevard Rogue River and Redwood Highway, ODOT, 1979 and Traffic Volume Tables, Transportation Data Section, Oregon Department of Transportation, 1995.

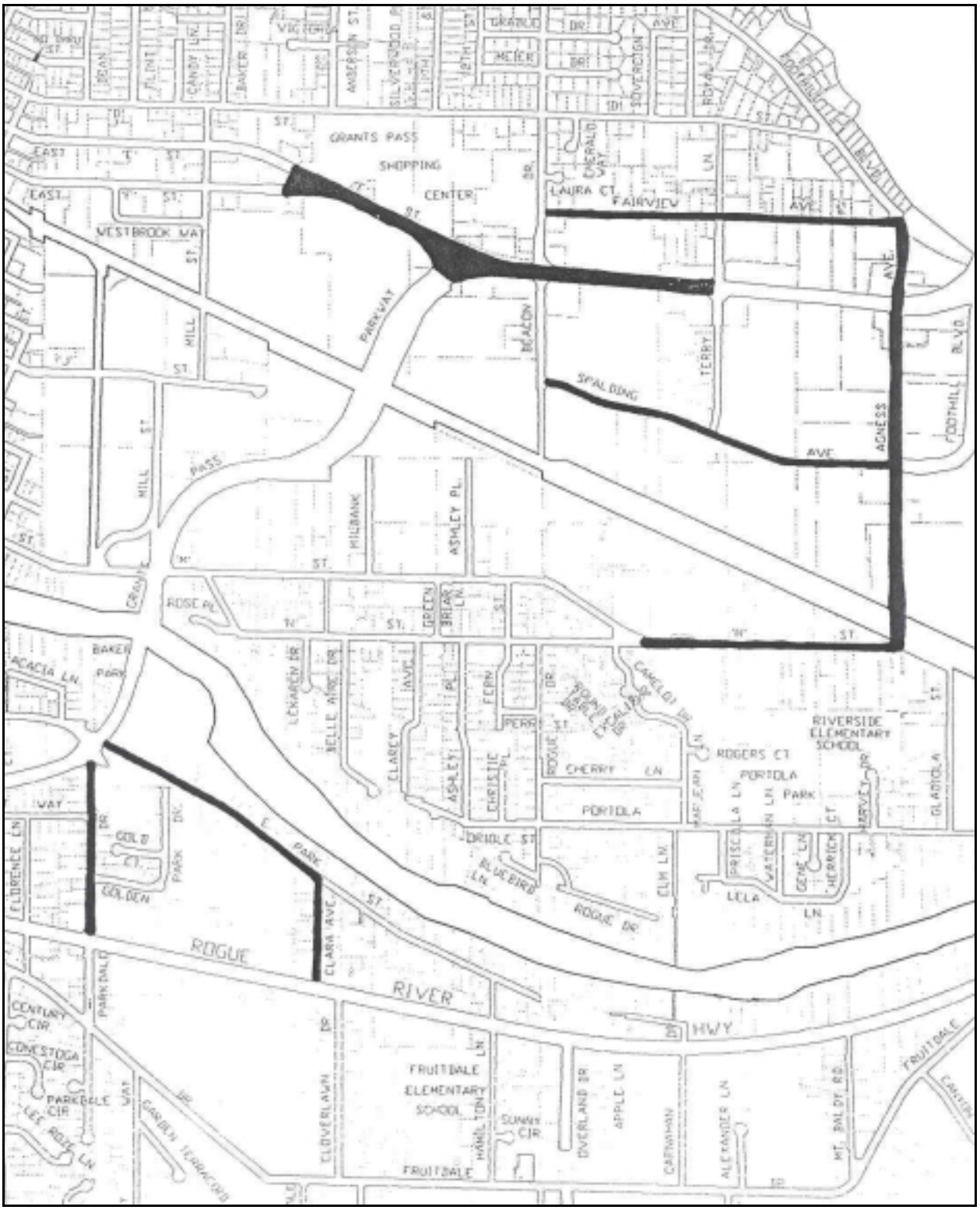

Figure 3.6: Local Road Improvements in or Near the Study Area Since 1979
Source: City of Grants Pass - Engineering Division

3.4 PUBLIC SERVICES

The City of Grants Pass Capital Improvements Projects/Preliminary Listing (1982) describes the area's longstanding concern over its ability to provide an adequate source of potable water to support full urban-level development, especially south of the Rogue River. In 1981, Grants Pass and Josephine County entered into an agreement to provide city-county cooperation in the extension and initial funding of urban level services, tying the extension of services to the planning process and requiring an annexation agreement with the City for all urban-level development.

Before the Grants Pass Parkway was built, both water and sewer services had limited availability in the study area. In the early 1990s, services were extended along Fairview Avenue between Beacon Drive and Terry Lane, a residential and commercial area near the project's northeastern terminus. The focus group participants indicated that the City may have also increased the size of a water line along the Parkway for the Fred Meyer development. And, with the construction of Spaulding Avenue in 1991, services were extended into the industrial area. Figure 3.7 shows the water and sewer lines currently in the study area.

Figure 3.7. Water and Sewer Lines in the Study Area, 1999

3.5 PUBLIC POLICY

Changes in public policy can have a significant impact on the timing and location of development. The following are some key changes in local and state policy that occurred between 1979 and 1999.

The City of Grants Pass completed a Comprehensive Community Development and Traffic Management Plan in 1981. The Plan called for improvements and expansion of the transportation system to accommodate growth and stated that the most significant deficiency in the transportation system was the lack of additional Rogue River crossings. The Comprehensive Community Development and Traffic Management Plan identified several strategies for community development including (1) commercial growth in the downtown, east Grants Pass, and Redwood interchange areas, (2) industrial growth in the Riverside Industrial Area through aggressive promotion of land and services, and (3) residential growth at higher densities in the areas of commercial and industrial growth.

The City of Grants Pass Capital Improvements Projects/Preliminary Listing (1982) identified the "Third Bridge and Connecting Roads" project and gave its justification as "high traffic volumes on 6th and 7th Street bridges and existing accident history." The listing described the project construction as occurring in three phases: (1) roadway from M Street to Beacon Street (1985), (2) the third bridge and roadway from the south interchange to M Street (beyond 1988), and (3) Redwood Spur from Beacon to south of Interstate 5 interchange (beyond 1988). Instead, project construction began in 1989 and finished in 1991, at which time the entire corridor opened.

The Grants Pass and Urbanizing Area Comprehensive Community Development Plan (the City's Comprehensive Plan) was acknowledged by the Land Conservation and Development Commission in 1982. The Plan (with some sections revised as recently as 1992) established several City goals that impact land use in the study area. One goal recognizes the Rogue River as the City's most significant natural and economic resource. In response, the City instituted "Riverfront Tourist Commercial Zones" and a "Scenic Overlay Zone" for the enhancement of land adjacent to the Rogue River. According to the focus group participants, three "riverfront nodes" were designated for design attention, but they have not been implemented. Trails were also planned along the river between the 6th and 7th Street bridges and the Parkway bridge, but some property owners opposed the idea, so it was not implemented. The City's codes also place restrictions on development within the 100-year floodplain and floodway.

The City's economic development policies encouraged and protected industrial and commercial development in areas already designated for such uses. The policies specified the completion of a facility plan and implementation strategy for the industrial area located in the study area that would include the extension of Agness Avenue and the extension of water along N Street and Agness Avenue. The City's housing policies focused on protecting and enhancing established neighborhoods within the City and UGB. The City's goal concerning land use focused on following the Comprehensive Plan and limiting high density residential development to the immediate proximity of downtown, the shopping centers in east Grants Pass, and the Redwood interchange.

In 1986, the Rogue Valley Council of Governments issued the Grants Pass Carbon Monoxide Plan. The area of downtown Grants Pass bounded by 5th Street, M Street, 8th Street, and B Street was an air quality non-attainment area for carbon monoxide. Carbon monoxide concentrations in Grants Pass during 1983-85 were about 30% above the eight hour carbon monoxide health standard. A plan was needed to comply with health standards for carbon monoxide. Since most carbon monoxide originates from vehicles, the City chose a combination of the federal new car emissions control program and the construction of a third bridge over the Rogue River as its control measures. The plan was projected to decrease carbon dioxide emissions by 50% between 1984 and 1990, thus more than meeting the health standard.

According to focus group participants, the City has renewed its focus on downtown vitality in the past ten to fifteen years. City projects have provided additional off-street parking and designated the downtown Historic District. Many services have remained in downtown, although there is a perception in the community that the "big box" stores have taken some downtown business. The mix of businesses in downtown has changed to offer more specialty shops, restaurants, and entertainment.

In 1987, the City adopted an ordinance designating the "Third Bridge Corridor Development Plan Area," an Urban Renewal project encompassing a total land area of 869 acres, the maximum amount allowed by the federal program. The intentions of the Development Plan were to (1) correct blighted conditions, particularly deficiencies in the City's infrastructure, (2) attract job producing, tax paying private investment in the area, (3) improve transportation access to and from Interstate 5, business and industrial areas, the Rogue River, and the remainder of the Development Area, and (4) place unused and underused commercial and industrial property on the tax roll at a value that will pay its fair share of public services. The Plan called for a variety of public works activities to correct "blighted" conditions and allow the areas to be developed and redeveloped. The Plan did not require the elimination of any dwelling units. The Third Bridge Corridor Development Plan Area is shown in Figure 3.8.

In about 1991, according to City staff, the City designated the East Grants Pass Local Improvement District. The designation led to the upgrade of a section of Fairview Avenue (from Beacon Drive to Terry Lane) with road improvements and the extension of water and sewer services in the early 1990s.

The City also encouraged economic development by offering incentives for business to locate in Grants Pass. According to the focus group participants, the incentives were related to the number of family wage jobs that a company would create. Criteria for receiving incentives has become more strict as commercial development in the study area has gained strength. Some businesses, such as Walmart, received an incentive and settled in the study area (in 1992-93), although City officials believe that Walmart would have settled without the incentive. The City also established large Enterprise Zones in various locations throughout the urban area (shown in Figure 3.8), several of which were located in the study area.

State policy has also changed since the FEIS was issued – cities must now have transportation systems plans (TSPs). While Grants Pass has always had a transportation element in its comprehensive plan, the state requirement for TSPs – and Grants Pass response to those requirements are more sophisticated than previous transportation policies in Grants Pass. The Grants Pass Master Transportation Plan was issued in 1997.

Figure 3.8: Grants Pass Enterprise Zones and Third Bridge Corridor Development Plan Area

4.0 CONCLUSIONS

Chapter 2 describes the land use, transportation, other public facilities, and public policy at and before the time the Final Environmental Impact Statement (FEIS) was issued. Chapter 3 describes the changes that occurred since the FEIS was issued. Chapter 1 notes, however, that the fact that changes occurred in the project corridor does not mean that the construction of the Grants Pass Parkway caused or even contributed much to those changes. This chapter addresses that question: what role did construction of the Grants Pass Parkway play in the land use changes that occurred in the project's corridor?

4.1 CONDITIONS: PRIOR TO 1979

- The City of Grants Pass had an average annual growth rate of 2.2% from 1960 to 1978. Josephine County's rate was 3.1% for the same time period. The City and County populations in 1978 were 15,000 and 52,100 persons, respectively. The City forecasted its population in the year 2000 at 26,000, a 73% increase from 1978, or average annual growth rate of 2.5%. The County forecast was more modest at 71,600 persons in 2000, a 37% increase from 1978, or average annual growth rate of 1.5%.

- In 1979, Grants Pass had the largest concentration of commercial, industrial, and residential land use in Josephine County. Housing had increased in all parts of Grants Pass except immediately north of the central business district where residential use was converting to commercial use. Commercial strip development was common along the highways and the central business district. Commercial activity had decreased slightly in the zones just southeast of the 6th and 7th Street bridges. Industrial development was concentrated in the Riverside Industrial Area (in the study area) and the Airport Industrial Area north of the City.

- In 1979, the Grants Pass urban area had 263 acres of vacant land with 40 acres in the flood plain and the rest buildable and mostly zoned for industrial or residential purposes. At the time the FEIS was issued, the draft comprehensive plans for Grants Pass and Josephine County had not been completed or acknowledged by the Land Conservation and Development Commission, thus policy affecting land use was not well-defined. The FEIS stated that development was expected to continue along existing trends pending provision of public services and constant zoning policies.

- The City of Grants Pass was geographically divided by the Rogue River with the downtown central business district to the north of the river. The two one-way, two-lane bridges along 6th and 7th Streets provided the only access across the Rogue River in Grants Pass. As early as 1965, the Oregon State Highway Department identified traffic congestion caused by the limited capacity of the 6th and 7th Street bridges and the need for a third bridge across the Rogue River.

- The highway project was intended to provide an additional Rogue River crossing within Grants Pass, serve as a bypass of the City for through traffic, and improve access to the Riverside Industrial Area east of downtown. The FEIS, issued in 1979, expected the project to: (1) contribute to the vitality of the downtown central business district, (2) facilitate the anticipated residential development south of the Rogue River, (3) increase the rate of development along the Redwood Spur and Agness Avenue once sewer services became available, and (4) allow expansion of the Riverside Industrial Area.

- In 1979, the project alignment was within the Grants Pass city limits with the exception of small sections near each terminus.

- The project alignment passed through three distinct land use areas. The northeastern third of the project corridor followed the Redwood Spur of Highway 199 and adjacent land use was primarily commercial; the middle third provided a new alignment through the Riverside Industrial Area; and, after crossing the Rogue River, the southwestern third followed an old railroad right-of-way through the Fruitdale residential neighborhood.

- In 1979, the study area contained 14% of residential development, 9% of commercial development, and 46% of industrial development within the City (based on number of developed tax lots).

- In 1979, the study area contained 15% of the acres in residential use, 21% of the acres in commercial use, and 79% of the acres in industrial use within the City.

4.2 CHANGES: 1979 TO 1991

- Construction of the project began in 1989 and was completed in 1991. The project acquired 25 acres for public right-of-way, directly impacted approximately 50 properties, and displaced approximately seven residents and one business.

- In 1982, the Grants Pass Comprehensive Plan was acknowledged by the Land Conservation and Development Commission. At that time, the project corridor fell completely within the City's Urban Growth Boundary (UGB). Since 1982, the UGB has undergone three minor expansions at points north, south, and southwest of the City.

- From 1979 to 1991, the City approved approximately 24 small annexations at various locations along the city limits that involved a variety of land uses. About nine annexations occurred in the study area and included land in residential, commercial, and industrial use. By 1991, the project corridor was completely contained within the city limits.

- From 1982 to 1997, the City did not made any major changes in land use designations in the study area, but did make several minor zoning changes. The current Grants Pass Comprehensive Plan Policies identify the Rogue River as "the City's most significant natural and economic resource." In response, the City instituted the Riverfront Tourist Commercial (RTC) zones (some land in the study area is designated RTC) and a Scenic Overlay zone for

the enhancement of land adjacent to the Rogue River. Other zoning changes involved the redesign of the Industrial and Business Park zones within the Riverside Industrial Area.

- In 1982, the City's Comprehensive Plan identified several strategies for community development including promoting commercial growth along the Redwood Spur and industrial development in the Riverside Industrial Area. In 1987, the City adopted an ordinance designating the "Third Bridge Corridor Development Plan Area," an Urban Renewal project. The Development Plan identified deficiencies in the area's infrastructure and transportation systems and unused or underused commercial and industrial properties. The City also established large Enterprise Zones in various locations throughout the urban area, several of which were located in the study area.

- In the late 1980s, the City renewed its focus on downtown vitality. Many services have remained in downtown, although the mix of businesses in downtown has changed to offer more specialty shops, restaurants, and entertainment.

- In 1986, downtown Grants Pass was an air quality non-attainment area for carbon monoxide. The City chose the construction of the Grants Pass Parkway and the federal new car emissions control program as its control measures.

- From 1980 to 1991, the study area received 10% of the new residential development and 19% of the new commercial development occurring in the City.

- During this time, the City provided sewer and water services to Agness Avenue and N Street (existing in 1979) and Spaulding Avenue (constructed in 1991) in the northeastern portion of the study area. This area serves commercial and industrial activities.

4.3 CHANGES: 1991 TO PRESENT

- From 1978 to 1997, the population in Grants Pass grew at an average annual growth rate of 1.7% to 20,535 persons, a rate less than the 2.5% predicted by the FEIS. From 1978 to 1997, the population of Josephine County grew at a rate of 1.8% to 73,000 persons, a rate slightly above the 1.5% predicted by the FEIS. According to Josephine County staff, the Parkway did not have a significant impact on development south of the Grants Pass UGB.

- From 1992 to 1999, the City approved approximately 24 small annexations at various locations along the city limits that involved a variety of land uses. One annexation occurred in the study area, around 1996, and included land in industrial use.

- The City provided several transportation improvements that were related to the construction of the Grants Pass Parkway. These improvements included the widening, extension, and creation of roads to provide third bridge interim routes, improve access to the Parkway and the Riverside Industrial Area, and accommodate increases in traffic volume associated with the Parkway.

- From 1976 to 1995, traffic volume along 6th and 7th Streets across the bridges and through the central business district south of E and F Streets decreased by approximately 11%. Traffic along 6th and 7th Streets north of E Street increased between 45% and 48%. Considering alignments existing in 1979, the Redwood Spur section of the Parkway (near the I-5 interchange) received the largest increase in traffic volume, 148%. Highway 99 west of the interchange with the Parkway saw a 20% reduction in traffic volume.

- In 1997, the study area contained 12% of the residential development, 11% of the commercial development, and 46% of the industrial development located within the City of Grants Pass. From 1992 to 1997, the study area received 6% of the new residential development and 59% of the new commercial development occurring in the City. Only one industrial site within Grants Pass has developed since 1979; it is located outside the study area.

- In 1997, the study area contained 14% of the acres in residential use, 22% of the acres in commercial use, and 79% of the acres in industrial use.

- About 15% of new subdivisions approved since 1990 occurred in the study area. About 7% of the approved subdivision lots occurred in the study area.

4.4 SUMMARY OF EVENTS

Table 4-1 provides a timeline of important events in the history of the project and related changes in land use and public policy.

Table 4.1. Summary of Events

Event	Year
Draft Environmental Impact Statement, Grants Pass Parkway, issued	1978
Final Environmental Impact Statement, Grants Pass Parkway, issued	1979
Grants Pass and Josephine County enter into an annexation agreement	1981
Grants Pass Comprehensive Community Development and Traffic Management Plan issued	1981
City of Grants Pass Comprehensive Plan acknowledged by LCDC.	1982
City of Grants Pass Capital Improvements Projects/Preliminary Listing issued	1982
Grants Pass Carbon Monoxide Plan issued by the Rogue Valley Council of Governments	1986
Third Bridge Corridor Development Plan Area designated	1987
Construction of Grants Pass Parkway began	1989
McDonald's opened	1989
East Grants Pass Local Improvement District designated	approx. 1991
Spaulding Avenue constructed	approx. 1991
Construction of Grants Pass Parkway completed	1991
Fred Meyer, Taco Bell and Elmer's Pancakes opened	1991
Walmart opened	1992
Ernst (home improvement), Holiday Inn Express and Arco AM/PM opened	1994
Shari's Restaurant and RV dealer opened	1996
State Juvenile Corrections Center opened	1997
Blockbuster Video and Albertson's opened	1997
City of Grants Pass Master Transportation Plan adopted	1997
Big 5 Sporting Goods and Grocery Outlet opened	1998
Ernst closed (still vacant)	1998
Schucks (car parts) opened	1999
Josephine County Jail planned for property along Spaulding Avenue	future

4.5 INTERPRETATION

The Grants Pass case study is an analysis of one project and its impacts. The narrow focus of the analysis, and the methods used to conduct the analysis, imply inherent limitations in the conclusions. The conclusions that we draw from this analysis are unique to Grants Pass and the Grants Pass Parkway project, and should not be construed as universal – analysis of other highway projects in other communities would probably lead to a different set of conclusions.

Another limitation of this analysis is that it doesn't directly address how the total amount of development in Grants Pass might have been different in the absence of the project. Developing such conclusions would require a much broader regional study, and would benefit from primary data on why households made decisions to locate in Grants Pass instead of other communities. While one might argue that the Grants Pass Parkway led to greater total growth in Grants Pass than would have occurred without the project, this is largely speculative. Instead, the project appears to be part of a larger, coordinated City development and traffic management effort.

The evidence is clear that ODOT's construction of the Grants Pass Parkway has not caused substantial land use changes in Grants Pass. The City has planned for the development patterns that exist in the study since the possibility of a third bridge was initially identified in 1961.

Since 1991, residential growth in Grants Pass has primarily occurred to the north and west of downtown, with a few subdivisions developing south of the Rogue River as well. Within Grants Pass, subdivisions approved since 1990 show increasing growth south of the Rogue River.

Commercial development along the Redwood Spur in the study area has been strong, a land use trend that had begun before the FEIS was issued. With the possible exception of the juvenile correctional facility (an institutional use), industrial development in the study area has not been realized despite public expenditures in infrastructure and roads specifically aimed at attracting this type of development.

Our research found several reasons for the development patterns we observed:

- Planning and public policy have consistently supported the development patterns and type of development that occurred in the study area. Moreover, the City provided restrictions and incentives for development to follow patterns established prior to issuance of the FEIS in 1979.

- Land ownership was a key factor in the limited industrial development that occurred in the project area and will be a factor for future commercial development. According to focus group participants, land in the northern portions of the study area is held by a few landowners that seek higher prices for land in the area. Focus group participants indicated this may have resulted in some industrial development locating in other areas of the county (such as Merlin). Economic conditions, such as overall decline of manufacturing in the Oregon economy, also contributed to the lack of industrial development.

- Increased traffic volumes along the Redwood Spur portion of the Parkway may have enhanced its attractiveness to commercial development. Commercial development, however, is partially responsible for the increased traffic volumes. If the project had not been built, it is likely that persons living south of the Rogue River would be less willing to cross the river to shop along the Redwood Spur. Moreover, without the Parkway, the types of commercial development found along the Redwood Spur may have been duplicated south of the Rogue River.

- Since the Parkway did not drastically change travel times between south and north Grants Pass, it has not significantly affected development patterns south of the Grants Pass UGB.