

Junction City Transportation System Plan

March, 2000

Prepared for the City of Junction City
by Lane Council of Governments
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However, the inclusion of proposed projects and actions does serve as an opportunity for the projects to be included, if appropriate, in documents such as the State Transportation Improvement Program (STIP) and Lane County Capital Improvements Plan (CIP). Such inclusion is not automatic. It is incumbent on the state, county, city, and general public to take action to encourage and support inclusion into the STIP or CIP at the appropriate time. Projects included in the STIP or CIP are required to have funds available so the number of projects which can be included are constrained by funding levels.

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Chapter One

INTRODUCTION

A. Overview: Relationship of the TSP to the Comprehensive Plan

The Junction City Transportation System Plan (TSP) is the long-range policy document that guides transportation planning within Junction City's urban growth boundary (UGB) for the next 20 years. The plan will be updated when needed or during the periodic review process.

The mission, goals and policies contained herein are adopted as part of Junction City's Comprehensive Plan. Ordinance amendments that implement the plan will be adopted as amendments to the city's development ordinances. Other parts of this document provide supplementary technical information and are supporting documents to the comprehensive plan.

The city will base its transportation system capital improvements on this plan. Refinements may supplement the plan with more detail and specific information on issues, policies, and projects. These refinement plans must be consistent with the Transportation System Plan.

B. Plan Context

The City of Junction City has a considerable amount of growth potential within the city limits and urban growth boundary (UGB). Long-range comprehensive planning is a tool for looking ahead into the future and shaping growth of an area. Transportation planning is one facet of Junction City's long-range plan. Local comprehensive plans must be consistent with the statewide planning goals. Oregon's Statewide Planning Goal 12: Transportation, is "To provide and encourage a safe, convenient and economic transportation system." Goal 12 goes on to state that "A transportation plan shall...

- (1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian;
- (2) be based upon an inventory of local, regional and state transportation needs;
- (3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes;
- (4) avoid principal reliance upon any one mode of transportation;
- (5) minimize adverse social, economic and environmental impacts and costs;
- (6) conserve energy;
- (7) meet the needs of the transportation disadvantaged by improving transportation services;
- (8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and

(9) conform with local and regional comprehensive land use plans.”

This transportation plan is intended to meet all of the requirements of the state’s Transportation Planning Rule (TPR), Oregon Administrative Rule 660 Division 12, that implements Goal 12.

C. Planning Assumptions

The transportation plan assumes the same plan designations as Junction City’s comprehensive plan when forecasting future land development. The study area is Junction City’s Urban Growth Boundary (UGB). In 1990 there were an estimated 4,596 people in the Junction City UGB. The projected population for 2015 is 7,400 people. The base year for the employment data is 1994 when there were 3,557 jobs in Junction City. The horizon year, or planning year, is 2015, and the projected employment is 5,002 jobs. See Appendix B for more detail on the population and employment projections and allocation of future housing units and projected jobs to vacant land.

D. Planning Process

The TSP is based on public involvement and citizen review to ensure that the goals of the TSP reflect the values of the community. A Citizen Advisory Committee met monthly for more than one year to provide staff with direction on the development of the TSP by first developing transportation goals and objectives, and then by making sure the TSP meets those goals and objectives. This committee was comprised of eleven volunteer members appointed by Junction City’s City Council to represent a broad spectrum of transportation and community interests in the planning process.

Staff conducted a system-wide inventory that provided a basis for determining transportation system needs. Traffic projections were developed based on allocation of the future population and employment. A community-wide scientific survey was conducted to elicit the community’s views on various aspects related to developing the TSP. A community workshop was held in fall, 1996, to identify issues that should be addressed by the plan. Staff worked with the committee to come up with ways to approach the transportation needs and issues. Some of these options were presented to the public during a workshop in May, 1999. The public was also asked to provide comments on the draft goals. All committee meetings were open to the public and advertised in the local press. Short articles and an editorial describing the development of the plan and public involvement opportunities were also published in the newspaper throughout the year.

The committee reviewed this document and staff made the suggested edits. The draft was released to the public and to other agencies for review (Oregon Department of Transportation, Department of Land Conservation and Development, Lane County Public Works, and Lane Transit District). Staff responded to the comments and/or made revisions to the draft TSP. The

TSP then went through the adoption process. The Planning Commission held a joint public hearing _____ with the Lane County Planning Commission and Lane County Roads Advisory Committee on the TSP, during which oral and written testimony was considered. Both Planning Commissions and the Roads Advisory Committee made recommendations to their respective elected officials. The City Council and the Board of County Commissioners also held a joint public hearing, identified changes that needed to be made, and adopted the TSP on _____, 2000.

E. Plan Monitoring and Performance

The TSP is the guiding framework for transportation policies, actions, and investments in Junction City through 2015. Transportation projects, improvements, and refinement studies must be consistent with the goals, policies, and projects listed in the plan and consistent with state laws. To develop this plan, assumptions on growth and development, population, employment, and travel behavior patterns were made. These assumptions may need to be adjusted and the plan may need to be amended over time. Because conditions change over time, some flexibility has been built into the plan.

The adopted plan policies and modal project maps (“Junction City Transportation Projects” maps from chapter four) will become part of the Comprehensive Plan for Junction City upon their adoption. They will be reviewed on a routine basis as required by state law or as needed due to unforeseen events.

F. Plan Organization

The remaining sections of this document are summarized below.

Chapter Two: Mission, Goals and Policies

The transportation mission and goals are listed. These broad statements of philosophy were developed by the Citizen Advisory Committee and guided the development of the TSP. The policies provide a specific course of action that will move the community toward the attainment of its goals.

Chapter Three: Land Use, Traffic Forecasting and Issues

A discussion of these three items and their relationship to the TSP is described.

Chapter Four: Modal Plans

In this chapter the street plan, bicycle plan, pedestrian plan, pipelines, railroad and public transit

plans are described.

Chapter Five: Implementation Actions

This chapter describes the financing plan for the TSP.

Appendix A: Existing Conditions

This appendix describes all components of the transportation system. It includes a database and maps for the existing street, sidewalk, bicycle system, and transit system. Also included is an accident summary, a description of existing land uses, and natural and cultural features.

Appendix B: Population and Employment Projections

Data on current population and employment for Junction City is presented. The appendix also includes the methodology for the population and employment projections, and explains how those projections have been allocated to the various Transportation Analysis Zones.

Appendix C: Needs Analysis

This needs analysis includes information based on the existing conditions, traffic projections based on the population and employment projects, and issues raised by the Citizen Advisory Committee, city staff, and the general public.

Appendix D: Policy Framework

This appendix describes other government policies that affect local transportation planning.

Appendix E: Glossary of Transportation Terms

The glossary defines transportation-related words that may be used in this document or in discussions about the TSP.

Appendix F: Community Transportation Survey

The questions and results of the community survey are contained in this section.

Appendix G: Ordinance and Policy Amendments

Changes necessary to implement the TSP are described in this section.

Appendix H: Compliance with State Law and Coordination with other Transportation Plans.

The Junction City TSP's coordination with other TSP and compliance with state law is reviewed in this section.

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Chapter Two

MISSION, GOALS, AND POLICIES

A. Introduction

To explain the items that follow in this chapter, the mission is the overall goal regarding transportation in Junction City. The goals are broad statements of philosophy that describe the hopes of the people of the community for the future of the community. Each goal is developed around a topic area. A goal may never be completely attainable, but is used as a point toward which to strive. The goals guided the development of the transportation system plan and should be used to monitor future transportation strategies and improvements. Policies are statements that provide a specific course of action moving the community toward the attainment of its goals. Each new capital improvement project, land use application, or implementation measure must be consistent with the policies. Once adopted, the mission, goals, and policies, as well as the project lists, will become part of Junction City's Comprehensive Plan.

B. Mission

M1 Enhance the quality of life in Junction City by providing a balanced transportation system that meets the travel needs of the community.

C. Goals

G1 The TSP will be based on research/data/knowledge and widespread public input and will be coordinated with and include material from the existing transportation element of the city's comprehensive plan.

G2 The TSP will include a convenient, efficient and financially feasible network of arterial, collector and local streets.

G3 The TSP will protect and enhance the existing transportation facilities within the city as new facilities are built to augment the system. The old and new parts of the system should be effectively and efficiently connected and coordinated with county and state transportation facilities.

G4 The TSP will stress safety for the users and will protect and enhance the community's quality of life.

G5 The TSP will be sensitive to the community's aesthetics and will strive to retain a sense of

community, particularly in the downtown area of Junction City, which is seen as critical to the town as a focal center.

G6 The plan will remain flexible to change and will be supportive of reviewing and updating the TSP through the periodic review process or the comprehensive plan amendment process.

G7 The plan will be balanced among the modes of transportation, offering members of the community choices/alternatives to single occupant autos.

D. Policies

Plan Context and Implementation

TSP-1 The Mission, Goals and Policies and the Project Lists of the Transportation System Plan are elements of the Junction City Comprehensive Plan. Other portions of the TSP are supporting documents of the comprehensive plan.

TSP-2 The Junction City TSP identifies the general location of transportation improvements. Changes in the specific alignment of proposed public road and highway projects shall be permitted if the new alignment falls within a transportation corridor or right-of-way identified in the Transportation System Plan.

TSP-3 All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.

TSP-4 For improvements designated in the Transportation System Plan, the following activities shall be allowed without land use review:

Dedication of right-of-way,

Authorization of construction and the construction of facilities and improvements,

Classification of the roadway and approved road standards.

TSP-5 Changes in the frequency of transit and rail services that are consistent with the Transportation System Plan shall be allowed without land use review

TSP-6 For State projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required.

(1) Where the project is consistent with the Transportation System Plan, formal review of the draft EIS or EA and concurrent or subsequent compliance with applicable development standards or conditions;

Where the project is not consistent with the Transportation System Plan, formal review of the draft EIS or EA and concurrent completion of necessary goal exceptions or plan amendments.

Protection of Transportation Facilities

TSP-7 The city shall protect the function of existing and planned transportation systems as identified in TSP through application of appropriate land use and access management regulations. The State of Oregon has adopted administrative rules that specify certain standards and procedures that apply to all new access permits on state facilities. The Lane County TSP, due to be adopted by the end of 2000, will include similar requirements for access onto the county road system. In both instances, Junction City will apply these standards and procedures during the development review process.

TSP -8 When making a land use decision, the city shall consider the impact of the new development on the existing and planned transportation facilities. Notice of all land use changes located on state or county roads shall be sent to the respective jurisdiction, and comments from same shall be included in the official record.

TSP-9 The city shall consider the potential to establish or maintain bikeways or walkways prior to the vacation of any public easement or right-of-way.

TSP-10 At the time of land development or land division, the city shall require the dedication of additional right-of-way when necessary to obtain adequate street widths and bikeways and walkways in accordance with the City's adopted street plans, bicycle plans and pedestrian plans.

TSP-11 Private development shall not encroach within the setbacks required for future street expansion.

TSP-12 Truck routes and other motorized vehicle alternatives may be used as tools to minimize the impact of large and heavy vehicles in the downtown and other areas.

Functional Classifications of Streets

TSP-13 Oregon State Highway 99, 1st Avenue (including High Pass and River Rd. segments), Oaklea Drive, and 18th Avenue shall be classified as arterials and shall be safe, high volume traffic movers serving as regional connectors. Access to an arterial shall, wherever feasible, be from the collector road system. Arterials shall be protected against strip development and access driveways that will restrict their effectiveness.

TSP-14 6th and 10th Avenues east of Oaklea Drive and Prairie Road are major collectors and shall provide access from local streets or minor collectors to the arterial system. Individual accesses shall be managed to minimize degradation of capacity and traffic safety.

TSP-15 A minor collector shall provide access to abutting properties and serve local access needs of neighborhoods, including limited through traffic. Minor Collectors include the north/south street and the extensions of 6th, 10th and 15th Avenues west of Oaklea in the Professional/Technical Zone area, 13th Avenue and 15th Ave. west of Rose St. (including the portions to be built and shown on the Street Projects Map), the access road south of 1st and east of Hwy 99 (shown on the Street Projects Map), Hwy. 36, the proposed grid system from W. 1st south to Bailey Lane and from Prairie Rd. west, Prairie Rd. East of Hwy. 99, Rose, Maple, Kalmia, Juniper, Holly, Front, Deal/18th to Hwy. 99, and Birch. New development that generates a significant amount of traffic shall be discouraged from locating on minor collectors that serve residential areas.

TSP-16 Local streets are all streets not identified in previous categories. A local street shall provide direct property access and access to collectors and minor arterials.

Layout and Design of Streets, Bikeways, and Sidewalks/Walkways

TSP-17 The city shall adopt standards for streets, bike paths and lanes, sidewalks/walkways, bus stops, and other transportation facilities and shall require such facilities at the time of land division or development.

TSP-18 Streets shall be designed to efficiently and safely accommodate emergency service vehicles.

TSP-19 Streets, bikeways, and walkways shall be designed to meet the needs of pedestrians and cyclists to promote safe and convenient bicycle and pedestrian circulation within the community. Unless there is a convenient alternative, all new major and minor collector and arterial streets shall have bicycle lanes and all new streets shall have sidewalks.

TSP-20 Direct and convenient access for motor vehicles, public transit, bicycles, and pedestrians, shall be provided to major activity centers, including schools, shopping areas, parks, community centers and employment centers.

TSP-21 Pedestrian access to transit facilities from new commercial, residential, and high employment uses and community activity centers shall be provided. Existing commercial, residential, and high employment uses and community activity centers shall provide safe and accessible pedestrian access to transit facilities when a site changes use or is retrofitted.

TSP-22 The city will encourage/require the extension of the city's street system wherever possible, thereby increasing connectivity. In all cases where it is reasonable, land divisions shall continue existing streets, set aside rights-of-way for future streets and intersections that will promote connectivity, and continue the city's grid system. Cul-de-sacs and other low-connectivity street types shall be discouraged except where topography, land features (wetlands, drainage systems, etc.) or land development patterns preclude high connectivity street patterns. Where cul-de-sacs and other low-connectivity street types are used multi-use paths may be required for bike and pedestrian users.

TSP-23 North/South connectivity needs to be promoted, particularly in the western section of the city that is already largely developed and will not be affected by new subdivision requirements promoting the extension of the city's grid system. Many problem areas exist but one of the areas identified is the area between 1st and 18th streets and between Nyssa and Vine. Increasing the connectivity of this area would reduce the amount of traffic using Ivy St. (Hwy. 99).

TSP-24 Streets identified as future transit routes shall be designed to safely and efficiently accommodate transit vehicles and pedestrians, thus encouraging the use of public transportation. Street designs shall be responsive to topography and shall minimize impacts to natural resources such as streams, wetlands, and wildlife corridors.

TSP-25 Where new walkways are built or where crossings are rebuilt they shall be built to city standards and incorporate handicapped accessibility features as required by state and federal law.

Maintenance

TSP-26 Maintenance and repair of existing bike and pedestrian facilities shall be given equal priority to the maintenance and repair of motor vehicle facilities.

TSP-27 Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.

Parking

TSP-28 On-site motor vehicle parking, as required by Junction City ordinances, shall be provided for all new development unless on-street parking or other nearby sites provide adequate parking for the proposed use. Where development that does not meet the parking requirement is proposed the applicant shall use the variance procedures contained in the city's zoning ordinance.

TSP-29 An overnight truck parking area within the city may be needed so large trucks, which are not allowed to park on City streets overnight, don't have to park on the street illegally.

TSP-30 Bicycle parking facilities shall be required as part of new multi-family residential developments of three units or more, new retail, office and industrial developments, and all transit transfer stations and park and ride lots.

TSP-31 Parking requirements/needs will be addressed in the central business district with creative solutions/guidance. Recognizing the limitations of land in the downtown commercial areas, the Planning Commission can adjust or waive parking requirements for infill and renovation projects in developed areas along Hwy. 99 between 18th and 1st Ave. and along 6 th Ave. and in other areas where land availability is limited and infill or more efficient use of land is desired. Such adjustments shall use the variance procedures set forth in the city's zoning ordinance.

TSP-32 As a follow-up to the TSP the city will review its signage ordinance for Ivy St. to see if changes are necessary.

TSP-33 As a follow-up to the TSP the city will look at RV impacts on traffic within the city.

Coordinated Review

TSP-34 The city shall coordinate with the Department of Transportation to implement the highway improvements listed in the Statewide Transportation Improvement Program (STIP) that are consistent with the city's Transportation System Plan and comprehensive plan.

TSP-35 The city shall consider the findings of ODOT's draft Environmental Impact Statements and Environmental Assessments as integral parts of the land use decision-making procedures. Other actions required, such as a goal exception or plan amendment, will be combined with review of the draft EA or EIS and land use approval process.

TSP-36 Procedures for the coordination between the city and Lane County on developments that impact county transportation facilities are identified in the City/County Urban Growth Management Agreement (UGMA). The city shall adhere to the UGMA procedures in order to protect Lane County's interests in said facilities.

Hwy. 99

TSP-37 Highway 99 is a critical facility to residents of Junction City, the surrounding communities, and the state. The model shows that if nothing is done to better manage traffic on the highway portions of Hwy. 99 within the city will reach capacity within the planning period. The city will work closely with ODOT to secure funding for and develop a refinement plan that will maximize Hwy. 99's usefulness in moving traffic while maintaining a healthy and functional downtown community.

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Chapter Three

LAND USE, TRAFFIC FORECASTING AND ISSUES

A. Introduction: Population and Employment Projections

If we want to know how the transportation system will need to change to fit the needs of the community over time we need to know how the city will change. As part of this project we want to know how the population of the city will most likely change over the life of this plan, and a necessary part of that process is projecting the growth of employment in the city. These dynamics are discussed below.

Please Note: A more detailed discussion of projections is contained in Appendix B.

B. Population Projections

Population changes impact transportation facilities; more people driving more vehicles means more congestion. To plan the transportation system we need to know how the city will grow over time (there is no evidence that indicates that the city's population will stay the same or be reduced).

In 1990, the population inside the UGB was estimated at 4,596. Approximately 900 persons were residing outside the city limits inside the UGB; the population outside the city limits but inside the UGB is not expected to increase since most growth will happen as land is annexed into the city. Whatever growth does occur in this area is projected to be accommodated by the losses that occur through annexation. For that reason, it is assumed that the number of persons outside the city inside the UGB will remain constant over the planning period

The population of Junction City as a percent of Lane County population has been increasing slowly over the last four decades. Projecting this trend into the future and then applying this percent to the Lane County population projections for 2015, results in a city population of about 6,500 in 2015. When the estimated 900 people who currently live outside the city limits but inside the UGB are added to this, it results in a 2015 UGB population of 7,400. This total 2015 UGB population of 7,400 is very close to the growth rate of 1.9% for the UGB population, which was the recommendation of the TSP Citizen Advisory Committee (CAC).

Thus, the 2015 population projection for the Junction City UGB is 7,400. As mentioned, this is an annual average growth rate of 1.9 percent.

	1990	Without Prison 2015 Projection
City Limits Only	3,670	6,500
Urban Growth Area Only	926	900
Total within the Urban Growth Boundary	4,596	7,400

C. Housing Unit Projections

By having a projection of population we can estimate how the number of housing units will change over the life of the plan. This will give us an indication of how much land will be needed to accommodate the population growth that has been projected and how transportation facilities might need to be changed or added over the life of the TSP.

Average household size has been declining both nationally and locally over the past 30 years and is expected to continue to decline but more gradually. Average household size has been declining in Junction City based on 1970, 1980 and 1990 decennial census data. In 1970, average household size was 2.78. By 1990, it had dropped to 2.42. It is projected to decline to 2.27 by 2015. This is similar to the decline projected for the Eugene-Springfield Metro Area. This average household size results in a total of 3,216 households in 2015 inside the UGB $((7,400 - 100)/2.27 = 3,216)$.

D. Employment Projections

It is reasonable to expect that there will be some increase in employment outside of the UGB since firms located there may grow. However, to be consistent with planning guidelines, the UGB area should be able to accommodate most new employment expected to locate in the census tract since it is the only city in the area. If all of the employment growth projected to occur in the Census Tract occurs inside the Junction City UGB (no growth outside the UGB), the projection for the UGB area would be 5,511 jobs. This would mean an increase in employment in Junction City's UGB by 2,640 employees over the 21 year period, or around 125 employees per year on average.

E. Modeling the Transportation System

As part of the TSP planning process LCOG developed a computer model of the Junction City transportation system. First, the city was divided into areas called transportation analysis zones (TAZs). Inventory data, such as the location, width, speed limits, traffic counts, etc., of streets, as well as population and employment growth rates for each TAZ, was entered into a modeling program that then projected how the system use and performance will change over the planning period. Knowing that, we can then make decisions on projects to maintain the performance of the system.

F. Results of the Community Survey on Transportation Issues

A key component of this TSP is the information contained in Appendix F, the community survey. The Citizens Advisory Committee wanted to solicit input from the community on a variety of issues in order to build a plan that meets the needs and wishes of the town's citizens. The survey, in general, listed the following conclusions.

1. Just over three-in-five (61%) Junction City residents feel that some form of transportation problem currently faces Junction City. "insufficient bus service" and issues involving "Highway 99" are primary.
2. Overall, traffic congestion on Highway 99 in the Junction City area is currently viewed as a little more than "slightly serious".
3. Junction City residents are strongly in favor of "a system for protecting left turns along Highway 99", about evenly divided on the merits of "a truck route." And generally opposed to "a one-way system using Juniper and/or Holly Streets along with Highway 99"
4. On average, Junction City residents use a motor vehicle – car, van, truck, etc. – for almost nine out of ten trips. A further eight percent are conducted on foot, and three percent by bicycle.
5. Each of the changes evaluated appears "very likely to increase bus ridership among 8% to 14% of Junction City residents. "More frequent service" and "service that fits better" with work schedules are the most likely ways to increase ridership; a "Park & Ride lot" is expected to be least effective.

6. Walking around Junction City is generally considered quite “easy”.
7. Junction City residents feel there are “too few” bike lanes and bike paths in the area.
8. Downtown parking in Junction City is viewed as somewhat inadequate overall.
9. Residents who feel Junction City needs an off-street overnight parking area for large trucks are slightly outnumbered by those who do not perceive such a need.
10. On balance, residents are slightly in favor of “mostly through streets” and few cul-de-sacs for new residential areas in Junction City.
11. Junction City residents strongly support “streets of regular width” in new residential areas, and oppose “narrow streets to slow down residential traffic”.

For specific information on the survey’s questions and responses please see Appendix F.

G. Community Issues/Needs

The following needs were identified by the CAC through data review, the survey, and comments from the public.

Hwy. 99 through the downtown area (1st to 18th) is becoming congested and will become critical in some areas during the planning period if nothing is done. This is the most serious challenge to planning the City’s transportation system, as it affects all other modes and strategies of the TSP. According to the community survey on transportation issues the most widely supported solution among the community is adding protected left turn lanes to the traffic moving north/south. However, due to a limited right-of-way width (60’), it may be difficult to add protected left turn lanes.

ODOT staff have proposed consideration of a three lane facility with a center barrier and protected left turn lanes but have not been able to offer additional information on how reducing the highway from four lanes to three would affect traffic and businesses located along the highway.

Many large trucks use the highway and CAC members were interested in developing alternatives or a truck route to reroute these trucks to other streets or roads. Members of the CAC expressed interest in a by-pass but were told by ODOT staff that because of funding and land use regulations such an option was unlikely. It is also uncertain how downtown businesses would

react to a bypass.

Additional problems posed by the highway running through the center of town include difficulty for pedestrians crossing the street at non-signalized intersections and problems for motorists and bicyclists trying to cross Hwy. 99 at non-signalized intersections.

The survey conducted as part of this plan found that the community does not support the idea of a couplet system as a means to address congestion on Hwy. 99.

The Oregon Department of Corrections has informed the city that a 1600 bed medium security prison will be built at the south end of the UGB at Milliron Road. Preliminary plans include installation of sewer and water lines to that site. This would encourage development of the industrial lands along the east side of the highway. Access management will be important to the development of these industrial lands. An access road could be used to reduce the number of accesses to the highway in this area (see medium-term projects, #14, Chapter 4). The city will work with the Department of Corrections, ODOT and Lane County to resolve these issues.

The CAC proposed that a refinement study of Hwy. 99 be done within the UGB. Because Hwy. 99 is a state facility, the city cannot begin to solve these problems without the support and participation of ODOT.

Bicycle travel is quite easy within the older parts of the city, which was laid-out in a grid system. Recently developed areas to the west of town (much of which is in the urban growth area) often have poor connectivity, which is sometimes due to the random parcel size, patterns of existing development, and the shape of the parcels, which can make it difficult to continue streets. Such areas discourage pedestrian and bicycle travel. In that area north/south connectivity is poor and it is difficult for elementary and high school students to bike to their schools without traveling on busy streets. The CAC's street plan, bicycle plan and list of street improvements include retrofit facilities to address these problems.

For the most part, the pedestrian system is excellent with the exception of the areas described above and some areas to the south. The same improvements mentioned above will help improve those areas for pedestrians.

The public transportation system is provided by Lane Transit District (LTD). Staff and the CAC have established contact with planning staff of LTD to discuss ways to improve scheduling for the Junction City routes, which often arrive after a major employer's shift has changed, making bus transportation problematic for those workers who would use it if they could get to work on time.

In May, 1997, a telephone survey was done for the Junction City TSP. The report and survey instrument are included in the technical appendices of this plan (see Appendix F). An interesting thing to note is that the idea of a park-and-ride was not very popular with those interviewed; however, one-quarter of those surveyed felt that the main transportation issue for the city was the “limited schedule” and infrequent “service to Eugene”. The CAC will continue these discussions with the community and the LTD in an effort to improve scheduling, service and ridership.

Para-transit and transit options for the elderly are limited by funding, although some services are available. For more on this topic, please see the description in Chapter 3 on these services.

The TSP process has not discovered that there are any unmet pipeline needs.

Trains, both the Burlington and Union Pacific lines, run through the center of town east of the highway in a north/south direction. The city would like the Burlington tracks in Holly St. to be removed. Having another route parallel to Hwy 99 could relieve pressure on highway and allow some options in dealing with problems associated with the highway. However, Burlington signed a 20 year contract in 1992 and it is unlikely that the tracks will be removed any time soon. This will likely preclude using Holly St. for a couplet, though the idea of using a couplet was not popular with survey participants, so this may be a moot point.

Junction City is fortunate that it has good access to rail service and several local businesses use rail to transport goods. The industrial area south of 1st St. along Hwy. 99, most of which is in the UGB, has rail lines all along its length, which could be beneficial to manufacturing companies interested in locating there when city services are made available.

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Chapter Four

Modal Plans

A. Introduction

This section provides a plan for each of the transportation modes. Where applicable, the plan includes a map that graphically describes the location of existing and proposed transportation facilities. The maps are to be used in conjunction with the policies of Chapter Two and implementation actions of Chapter Five.

B. Street Plan

The plans for the city's street system were based on modeling. The modeling itself was based on population and employment projections, traffic counts, and other data sets that were reviewed by the Citizens' Advisory Committee. The committee then discussed the impacts that were projected by the model.

One of the most important projects identified in this TSP deserves special attention. As Junction City's main street Hwy. 99's management is of critical importance to the future of the city. A very important project included in this TSP is the refinement plan for Hwy. 99, wherein the city, county and ODOT will work with members of the community and area to build a plan that will meet the needs of the city, county and state well into the future.

Following are descriptions of some of the data sets/maps that were used in this phase of the TSP development

1. Projected Traffic Volumes

Based on approved population and employment projections, new dwelling units and jobs were allocated to vacant land within Transportation Analysis Zones (TAZs) and traffic volumes were modeled to show how congestion can be expected to change over the planning period. This process, called computer modeling, was described in Chapter 3. Maps show existing traffic volumes (1994) and projected volumes, and the vacant lands by plan designations within the eighteen TAZs,

2. Congestion

These maps show projected congestion using the volume of traffic and the existing capacity of the streets. The model assumes a continuation of existing travel patterns and trip generation rates. Congestion will increase with the increases in population and employment, but could increase at a slower rate if people take fewer trips during rush hour in the future or if traffic

efficiency improvements are built. Based on the capacity of the streets and the projected volume of traffic during the peak afternoon rush hour, there will likely be some congestion along the Hwy. 99 corridor by the year 2015. Morning peak hour traffic will likely cause congestion in the opposite directions.

3. Accidents

At the end of this chapter there is a map that shows the location of accidents between January 1, 1991 and May 6, 1996 based on information from ODOT. Accident listings are included in Appendix A. From the map it is easy to see that most accidents happen along the Hwy. 99 corridor. The signalized intersections at 1st, 6th, and 10th are where most accidents occur.

4. Street and Sidewalk Conditions

Existing streets in Junction City and their condition are shown on a map within this chapter. See Appendix A for more information on existing streets and the methodology for gathering the information such as street condition. The capital improvement projects identified herein will bring additional streets into good condition.

5. Local Street Plans: Sidewalk & Street Projects

The Sidewalk and Street Projects maps are shown on these maps. They span short (2000-2001), medium (2002-2007) and long (2008+) terms. The financing plan contained in Chapter 5 identifies and discusses the capital improvement projects that will enhance the existing street system.

Please Note: The inclusion on proposed projects and actions in this plan does not obligate or imply obligations of funds by any jurisdiction for project level planning or construction. However, the inclusion of proposed projects and actions does serve as an opportunity for the projects to be included, if appropriate, in documents such as the State Transportation Improvement Program (STIP). Such inclusion is not automatic. It is incumbent on the state, county, city and general public to take action to encourage and support inclusion into the STIP at the appropriate time. Projects included in the STIP are required to have funds available so the number of projects which can be included are constrained by funding levels.

6. Functional Class

Highway 99, 1st (including High Pass and River Rd Segments) and W. 18th Avenues, and Oaklea Drive are **Arterials** and need to be safe, high volume traffic movers serving as regional connectors. Access to an arterial should normally be from the collector road system. Arterials need to be protected against strip development and access driveways that will restrict their effectiveness and reduce capacity.

Prairie Road, 6th and 10th Avenues are **Major Collectors** and move traffic from local streets and minor collectors to the arterial system and back. Individual accesses, while more frequent than on arterials, need to be managed to minimize degradation of capacity and traffic safety.

Minor Collectors provide access to abutting properties and serve local access needs of neighborhoods, including limited through traffic. Minor Collectors include Rose, Maple, Kalmia, Juniper, Holly, Front, Deal and Birch. New development that generates a significant amount of traffic shall be discouraged from locating on minor collectors that serve residential areas. Traffic studies will be used to analyze impact of proposed uses.

Local Streets are all streets not identified in previous categories. A local street shall provide direct property access and access to collectors and minor arterials.

- Please see the Functional Classifications map for more detail.

7. Access Control

The Access Control map at the end of this chapter shows the portions of Hwy. 99 north of 18th Avenue that are subject to access control.

Bicycle Plan

BICYCLE ROUTE SELECTION

In planning routes, the major emphasis was on connecting public facilities using a combination of existing paths, new paths and signed routes. The routes stress linking the east side of Junction City with the west, and the north to the south. A route along 18th Avenue is also provided. With the recent improvement of the Highway 99E/99W intersection at the north end of town, this crossing is now controlled with a traffic signal and is much safer. Thus a specific safety concern addressed in the 1990 plan has been addressed. In all instances the system crosses Highway 99 at controlled intersections. Bike paths were placed in areas to either provide a linkage between parks and schools or to provide a multi-use trail for a variety of users. One path is planned along an existing drainage way to link the Tequendama subdivision with Laurel and Oaklea schools to the north. The intent is to reduce bicycle-automobile conflicts whenever possible.

EXISTING BICYCLE FACILITIES

The city's bike path system has never been taken past a developmental stage. The City has established a Bike Path Reserve Fund used specifically for funding the construction, maintenance and repair of bike paths. These monies constitute one percent of the City's allocation from the State Street Tax revenue. The City's current bicycle transportation system inventory is as follows:

Tequendama Bike Path: This path meanders through the Tequendama Subdivision and is used as a connector path between W. 1st Avenue and W. 6th Avenue. The path is 1/3 mile long and constructed to state bike path standards.

Laurel School to Oaklea Middle School: This quarter mile long path is located in the northwest section of the city between Laurel Elementary School and Laurel Park and the Community Swimming Pool, and Oaklea Middle School. The path is presently a graveled surface used primarily by students and occasional joggers. The path is located totally on School District property and was built by the district.

Timothy Street to Maple Street: This is a bike lane located along the curb of W. 6th Avenue adjacent to High School property and is 1/2 mile long. The path interconnects the Tequendama Bike Path with Washburne Park.

Alder Street to Bergstrom Park: This path is 1/4 mile long and is used as a connector between apartments on Alder, Birch and Cedar Streets and Bergstrom Park to the east. The path was constructed during the summer of 1982 using Bike Path Reserve funds.

18th Avenue/17th Avenue: This is a separate path that follows an existing drainageway in the

north section of town. It provide a linkage through Toftdahl Park to the municipal pool and Laurel Park. A planned pathway will connect it through to 17th Avenue near Safeway.

PROPOSED BICYCLE SYSTEM IMPROVEMENTS

The existing bikeway system is composed of signed bike routes, designated bike lanes and separate bike paths. The proposed system seeks to link the existing elements through the use of signed bicycle routes, bike lanes, new paths and the completion of several existing facilities. In the future wherever possible the City will promote improvements that will allow for the installation of designated bicycle lanes and ideally bike paths.. New system elements proposed are identified by their respective number on the Bicycle Plan map (see map at the end of this chapter).

1 Rose Street from 6th Avenue to 18th (City). This will be a separate bike path which will link the Tequendama neighborhood to Laurel Elementary and Oaklea Middle School. Development of the path will require the City to either obtain ownership or easements on the affected parcels as well as the capital cost of constructing the path.

2 Saxon Place to Maple Street (City). This will be an extension of the existing path. Development of this path will require a bridge connecting to Junction City High School, and permission from the School District to install a path along the southern edge of the property to Maple Street. This path will connect the Tequendama neighborhood to Washburne Park, and Junction City High. It will also give bicyclists and pedestrians an alternative to W. 1st/High Pass Road.

3. Maple Street/Nyssa Street to Laurel Elementary School (City). This route is designated as a signed bicycle route. It connects JCHS and Washburne Park to Laurel School as well as the municipal swimming pool and Laurel Park.

4. Oaklea Road to Birch Street via 6th Avenue (City; County outside City Limits). This component will link the Tequendama area to the east side of Junction City via 6th Avenue. It is proposed as a signed bike route with segments of bike lanes and will serve as the major east-west connector. This element will cross railroad tracks at Holly Street as well as Front Street and provisions must be made to improve these intersections.

5. Oaklea Road to Deal Street, via 10th Avenue (City; County outside City Limits). These are also signed bike routes, which will link the east side of town with public facilities located west of Highway 99. This component crosses railroad tracks at Holly Street as well as Front Street, and these intersections must be improved to provide for safe bicycle travel.

- 6. Prairie Road from W. 1st to Hwy 99 (Lane County).** This segment will be a two lane urban modernization project with curb, gutter, sidewalks, bike lanes, and possible turn lanes at intersections.
- 7. Hwy 99 from 1st street south to UGB (ODOT).** This segment will connect Junction City's system to Lane County roads heading south of the city.
- 8. High Pass Road, 1st Street, River Road (Lane County).** These names apply to different segments of the same street, which runs east-and-west. The eastern segment turns south and connects with River Road in north Eugene. Bike lanes will connect this County facility with the City's and State's systems. The western segment, from Oaklea Drive to the UGB is listed as a "future", or long range project.
- 9. Oaklea Road from 1st to 18th (Lane County).** This bike lane segment gives the western area a north/south route .
- 10. Hwys. 99E and 99W north of 18th (ODOT).** These bike lane segments will connect the city system to systems to the north.
- 11. 1st to 18th via Birch, 6th and Deal Street (City).** These bike lanes will offer a north/south route for the eastern portion of the city and allow riders to avoid Hwy 99 through town. The segment connects with Hwys. 99 E and 99 W at the north end of town.
- 12. Pitney Lane from UGB to 1st (High Pass) (Lane County).** Two lane modernization project with curb, gutter, sidewalks and bike lanes.

OTHER BIKE SYSTEM PROJECTS

The following projects are not site-specific and, thus, are not shown on a map.

13. Bike System Map (City).

The City will develop a map of the bike system showing routes and such attractors as parks, City Hall, Post Office, schools, library, swimming pool, and other often-used facilities.

14. Public Education: Safety, Education and Enforcement (City).

Public information/education effort to create a safe bike system through the public safety and Parks and Recreation Departments of the City Government.

15. Ordinance Amendments (City).

Ordinance requirements for bicycle parking and other facilities will be added to the City's development ordinances.

SUPPORT FACILITIES/ACTIVITIES

In order to provide for a quality bikeway system on a sustained basis, the City must also provide for support facilities and activities. These will include providing for bicycle parking at all City facilities, creating and distributing promotional and education material about the bikeway system and providing for proper maintenance of the facilities.

Currently bicycle parking facilities are available only at Bailey Park, the Municipal Swimming Pool and the Junction City Library. Since the proposed system seeks to link all public facilities, the City will seek to install adequate bicycle parking facilities at all of its park sites. This will be particularly important in facilities which service the bypass routes. Cyclists using these routes will be using expensive equipment and must be provided with adequate space to secure their bicycles. In addition, the City will work with the school district in providing adequate parking facilities at school district ball fields that are linked by the system.

The City will also seek to develop and publish a system map and narrative to be distributed locally. Distribution sites should include the Chamber of Commerce, Viking Sal Senior Center, Junction City Library, the Municipal Pool and City Hall. Such a publication will enable the City to educate users about the system and enhance their use of it.

Proper maintenance will be a critical concern, given the limited manpower and resources available to the City. The nature of the proposed system is one of low maintenance. It will be important that the City provides for proper inspection and repair of signs, pavement marking, riding surfaces and railroad crossings to minimize the potential for accidents.

SAFETY, EDUCATION & ENFORCEMENT

Engineering, education and enforcement are the three major constituents of bicycle safety. In Oregon, the quality of engineering on bikeways has been very good and the number of facility related bicycle accidents have been few. As long as the facilities are maintained there should continue to be no major problems in this area.

Education and enforcement, however, are areas that need special attention. State bicycle funds are not eligible for these activities; but federal safety funds are available to the Oregon Traffic Safety Commission.

Education and enforcement could significantly reduce bicycle/motor vehicle accidents. Of the 860 bicycle/motor vehicle accidents that took place in Oregon in 1986, 45 percent took place at intersections while a lower but still significant 26 percent were a result of bicycles or motor vehicles entering or leaving the roadway at amid block location. Thirteen percent of the 1986 accidents resulted from wrong-way bicycle riding. Eight percent were caused by the other cyclist or motorist turning or swerving. The other 8 percent of the accidents were caused by miscellaneous movements.

The majority of these accidents were due to bicyclists or motorists disobeying the law, whether intentionally or out of ignorance. Education would certainly curtail unintentional infractions of the law, while a stricter enforcement would limit both intentional and unintentional infractions. Bicyclists especially need to know the vehicle laws which pertain to them and they also need to develop good bicycling skills. This will help them to safely coexist with motorists. Education of bicyclists assists in obtaining these skills and knowledge. Comprehensive bicycle safety education requires a program designed for each age group with emphasis on errors commonly committed by that group. On bike training is an important element of such a program. Education is also needed on the safety value of helmets and other protective measures.

At present, only a few Oregon communities have a comprehensive bicycle education program, while others have elements of one. Limited funds, lack of personnel expert in cycling, and lack of a person or agency responsible for bicycle education are the primary reasons. In some communities, volunteer service groups or police departments do some education, but support materials are often not well-developed. Usually, only elementary school age children are selected as the target group.

The 1987 Legislature took a big step forward in the passage of Senate Bill 514(ORS 802.325) which requires that the Oregon Traffic Safety Commission establish a bicycle safety program. This program should help to educate school age children, adult bicyclists, motorists, parents and law enforcement personnel. New legislation also requires the use of bicycle helmets by children, which is major improvement in safety requirements.

Law enforcement is a necessary component of bicycle safety. As with any law, lack of enforcement leads to a general disregard of the law. Some communities have had difficulty in getting the police to enforce the motor vehicle code with bicyclists. Discussions with bicycle coordinators have led to the conclusion that the lack of enforcement is partly caused by insufficiently trained police forces who are not award of the importance in citing bicyclists. Also,

there are the practical problems inciting bicyclists, since some lack positive identification, such as a driver's license.

Frequent contact between local bicycle advisory committees and the police can highlight the need for enforcement and identify problem areas. Significant violation problems that have been identified by the bicycling community include: running stop signs and traffic signals, riding the wrong way on a street, and riding at night without lights. Community education and support of enforcement efforts build respect between bicyclists and motorists.

FUNDING

At this time (fall, 1999) the City has approximately \$40,000 in its Bicycle Reserve Fund. Annual revenues to that fund are expected to increase by about \$1,800 per year. Costs for the projects listed above and shown on Map 14 total \$54,500. Thus, some projects will need to be deferred, paid for with grants, or funded from another source. A source of funding that should be explored is the State Highway Division's Bicycle Grant program.

Long term improvements would include the widening of 18th Street, Oaklea Street and High Pass/River Road, which are shown in the Lane County road improvement plan. As these improvements are forthcoming, the city will make provisions for designated bike lanes and shoulder bikeways on these streets. In addition, it is proposed that the city allocate necessary funds each year in the Parks & Recreation fund to provide for proper maintenance of the system.

CONCLUSION

The need for a coordinated bicycle transportation system has been voiced by Junction City residents over the last several years, and is a required part of Junction City's Comprehensive Plan. This plan is the mechanism to develop and implement such a system as well as to maintain it.

The proposed system seeks to meet the needs of both local and visiting cyclists in a safe and visually pleasing manner. The system will link all public facilities and provides for access into distinct neighborhoods in and around Junction City.

D. Pedestrian Plan

Junction City, like many towns that were founded in the 19th century, is based on a grid system of streets in its older parts of town. This grid system features high connectivity, where sidewalks are the rule rather than the exception. Walking is a convenient way to make trips within the core of the city and the survey shows that eight percent of trips are conducted by walking.

The objective of the pedestrian plan is to improve the most-used facilities that are in disrepair and retrofit pedestrian walkways into newer sections of town that were developed without walkways or where connectivity is low and walking is discouraged through a lack of convenient facilities and routes. Many sidewalks in the older section of town need to be improved to the new Americans with Disabilities Act standards. This project is listed in the Medium-term projects (See Project 1, Medium-term Sidewalk & Street Projects).

Overall, the pedestrian system in Junction City is in very good condition. Aside from the project listed above, improvements included in the Lane County projects, other improvements listed in the short, medium and long-term city projects, and the improvements listed in the bike projects (such as the multi-use path from Saxon to Maple St.), there are no other pedestrian projects that are listed as needed. Some small retro-fit projects exist that will be completed as part of the city's maintenance program.

Policies in this TSP require sidewalks in developing areas of the city. Where new sidewalks are required they will be built to City standards and incorporate handicapped accessibility features as required by state and federal law.

The city is planning on retrofitting areas of town that have poor vehicular, pedestrian and bicycle connectivity (see Sidewalks and Street Projects Maps earlier in this Chapter). All modes of transportation will benefit from these retrofit facilities, including pedestrians. Most of these retrofit areas are to the west of Maple Street; many are in the urban growth area.

Pedestrian System Improvements (City)

1. Construct ADA access ramps throughout downtown business area.
2. Install ADA compatible facilities and amenities at City Hall and Public Works Shop

The Americans with Disabilities Act (ADA) requires that all public facilities meet these standards. Additionally, ADA requires that routes to buildings with public accommodations (Library, Post Office, and restaurants) be equipped with access ramps at logical locations.

3. Install sidewalks as part of the connectivity projects and as new development occurs.

E. Transit Plan

Public Transportation in and around the community of Junction City is limited to commuter only service on Lane Transit District's fixed-route bus system, volunteer-based services for the elderly and persons with disabilities, once-a-week shopping service (also for the elderly and disabled), and very few inter-city bus connections.

Fixed-Route Transit Services

Lane Transit District (LTD) is the sole fixed-route, public mass transit provider operating within Lane County, Oregon. LTD's service boundaries were originally established in 1971 when the District was formed and includes those communities that participate in paying a business payroll tax; the local funding mechanism used to pay for LTD service operations. Route frequency and locations have developed and changed over the years primarily based on ride volumes, efforts to maximize the use of available resources and the ability to meet adopted productivity standards.

In small communities like Junction City service is usually designed as "commuter only" due to the relatively low volume of rides. The distance between the community and Eugene-Springfield metro area as well as low population densities contribute to the higher cost of providing bus service in rural communities.

Specialized transportation for elderly and disabled residents is provided through **RideSource Escort and RideSource Shopper**. **RideSource Escort** is a volunteer based door-to-door service primarily for medical trips. Additional funding is needed to reimburse volunteers for mileage costs. **RideSource Shopper** is a once-a-week shopping service. Riders are picked up at their homes and transported as a group to a local store. This service is not well-utilized because it is not currently designed to meet the needs of its intended population due to a lack of state/federal funding.

There are deficiencies in the existing special transportation services. There is no local public transportation available that regularly circulates within the community. Volunteer-provided rides are limited and do not serve individuals that use wheelchairs. Specialized services for the elderly and persons with disabilities do not serve other individuals within the community who also have limited transportation options such as young people seeking employment or social activities or those living on low-incomes.

Paratransit (Demand-Response) Transit Services

Acting on behalf of Lane Transit District, LCOG oversees and coordinates with providers to operate services funded through the Special Transportation Fund for the Elderly and Disabled

(ORS 391.800 - 391.830). Specialized transportation for elderly and disabled residents of the Junction City area is provided through **RideSource Escort** and **RideSource Shopper**.

RideSource Escort is a volunteer based door-through-door service primarily for medical trips coordinated with the assistance of LCOG's Senior and Disabled Services' Outreach Program and Lane Community College's Senior Companion Program. In fiscal year 1995-96 volunteers using their own vehicles provided rides to 49 elderly and disabled individuals. Special Transportation Fund (STF) revenues were used to reimburse volunteers for mileage costs.

RideSource Shopper is a once-a week shopping service. Riders are picked up at their homes and transported as a group to a local store. The driver assists by loading, unloading and carrying packages. The **RideSource Shopper** provided rides to 13 elderly and disabled riders in the Junction City area with a total of 782 one-way rides for the year. The **RideSource Shopper** is also funded through STF.

There are obvious deficiencies in the service. There is no local public transportation available that regularly circulates within the community. Volunteer provided rides are limited and do not serve individuals that use wheelchairs. The **RideSource Shopper** operates one day each week and only for grocery shopping; trips to the post office, bank, drug store and other local businesses are not included. Specialized services for the elderly and persons with disabilities do not serve other individuals within the community who also have limited transportation options such as young people seeking employment and social activities or those living on low-incomes.

Inter-city Passenger Bus or Rail Services

Greyhound Lines is the only available inter-city bus service traveling through Junction City with service seven days a week. A bus comes in from Corvallis and leaves Junction City at 8:20 a.m. arriving in Eugene at 8:45 a.m. (The bus continues south to Cottage Grove, Oakridge and Klamath Falls.) For a return trip, a Greyhound bus leaves Eugene at 10:48 a.m. and arrives in Junction City at 11:05 a.m.

2. Transit Projects

Chapter Four describes various projects that would enhance transit service. Any project that improves the pedestrian environment also improves accessibility to transit. Those projects have not been repeated in the following table. Rather, the table lists transit specific enhancement projects.

<u>Project Title</u>	<u>Project Type (see Chapter 4 for project descriptions)</u>
Support Special Transportation Services	other activity
Coordination with Lane Transit District	other activity
Park and Ride Improvements	other activity
Transportation Demand Management	educational effort
Use of Alternative Modes	educational effort
Transit Facilities	ordinance revisions
Land Use Strategies	further study
Expanded LTD Service	further study

LTD ridership averages 24 passenger boardings per trip on the six trips made each weekday for a total of 144 boardings per weekday. LTD's productivity standard for rural routes is 20 boardings per round trip; Junction City's route meets that standard. A specific trip on a rural route is considered substandard if it carries less than 15 boardings.

Junction City does not have a formal Park and Ride location. At present there is free parking with good capacity located in downtown Junction City. LTD has four covered bus shelters located at:

1. East side of Birch Street and south of 6th at Nordic Arms Apartments
2. North side of High Pass and east of Oak at Norsemen Village Apartments
3. North side of 8th and east of Holly at Lindeborg Place (housing)
4. West side of Greenwood and south of 5th at Viking Sal Senior Center

For all of their rural routes, LTD has requests for later service and, in some cases, more local service. In 1989 LTD contracted to provide a local shuttle service in Junction City called the "Town Flyer". The service was discontinued, in part, due to low ridership. Nevertheless, there was evidently interest in expanding local service even though it was not successful at the time.

F. Air Plan

There is no airport or other air service facilities within the TSP study area. Air service for passengers and freight is locally available at Eugene Airport, located approximately 7 miles south of the study area. Eugene Airport provides regularly scheduled service to national destinations with connections to nearby international airports in Portland, San Francisco and Seattle.

G. Rail

Junction City has a long history of rail activity. The city now stands on land purchased for the Oregon and California railroad, and its name comes from the fact that it once was the junction of

two railroads. The following information is derived from the *Oregon Freight Rail Plan* (1994) and the *Junction City Comprehensive Plan* (1994).

Rail line locations are shown on the maps at the end of this chapter.

Union Pacific Routes

The Union Pacific Railroad (UP), originally extended through Junction City in 1871, currently operates its Valley Main Line in the area, with service from Eugene to Portland. By far the most heavily used rail line in the Willamette Valley, this route moved over 20 million gross tons of freight in 1994. In the valley, the track is maintained to FRA Class 4 standards which permits maximum speeds of 60 and 80 mph for freight and passenger trains respectively. The maximum gross weight of equipment and lading permitted is 315,000 pounds. per four-axle car and there are no dimensional restrictions.

This line also accounts for significant passenger activity due to Amtrak's Coast Starlight train. However, there is no stop in Junction City. Amtrak has stops in Eugene, Albany, Salem and Portland, as well as connections to points south through Eugene and north and east through Portland. In 1992, 45,742 passengers got on or off at the Eugene Station.

Burlington Northern Routes

In 1910, the City granted the Oregon Electric Railroad (OE) use of Holly Street from W. 2nd Avenue to W. 17th Avenue as the right-of-way for its interurban passenger service. The OE line is now owned by the Burlington Northern Railroad (BN) and is used for freight service. The Oregon Electric Branch runs from Portland to Eugene and has access to a variety of traffic, mostly wood products. Traffic density is between one and five million gross tons annually and the track is maintained to FRA Class 3 standards permitting freight train speeds up to 40 mph.

Junction City leases Holly Street right-of-way to BN for their tracks. The city is considering proposing a relocation of the BN line alongside the existing SP line in order to free up the BN right-of-way for use as part of the street system.

Spur Lines

There are 12 spur lines serving existing industry in the planning area.

H. Water

There are no navigable waterways in the planning area. The Willamette River runs north-south approximately two miles east of the study area.

I. Pipelines

Natural Gas

Northwest Pipeline Company operates a major regional natural gas transmission line between Portland and Eugene which passes through the planning area along the railroad right-of-way. The gas is distributed in the Junction City area by Northwest Natural Gas Company. This six-inch high-pressure main interconnects storage facilities in the state as well as interstate sources.

Petroleum Fuels

Southern Pacific Transportation Company operates an eight-inch major transmission pipeline which runs along the railroad right-of-way (see maps at the end of the chapter). It extends from Portland to Eugene and has been in operation since 1962. This pipeline is a common carrier, designed to handle alternately regular, premium or unleaded gasoline and diesel fuel. It currently transmits almost 30,000 barrels of fuel per day to Eugene. From Eugene, it is distributed to various companies for shipment by truck to end destinations or for storage in tank facilities nine miles south of Junction City. This southern terminal serves not only all of Lane County, but parts of southern Oregon as well. Without the pipeline it would require about 150 tank trucks operating on the road system through Junction City, or 60 railroad tank cars, each day from Portland passing through Junction City to serve the distribution point.

Chapter Five

IMPLEMENTATION ACTIONS

A. Introduction

The Junction City Transportation System Plan (TSP) describes a strategy to develop the City's transportation system to meet the needs of the community for 20 years (through 2015). The Citizens Advisory Committee (CAC) studied information on the system's capacity and other issues and considered several alternative scenarios prior to choosing a strategy of Maintain and Connect. The CAC believed that this approach makes the most sense for the Junction City community.

This TSP contains four types of implementation actions used in achieving the mission of this plan. The capital improvements section lists projects and improvements. The comprehensive plan policies in the plan and ordinance revisions describe changes that will need to be made to the plan and implementing ordinances. The third strategy includes educational strategies. The last tool consists of areas of further study, such as the refinement plan that is recommended for Hwy. 99..

The System

The city's transportation system is currently functioning at an acceptable level of service and needs few major fixes aside from the inevitable problems of Hwy. 99 capacity and safety, for which a refinement plan is recommended. A strategy of maintaining the existing roads, connecting those in areas of poor connectivity and identifying key road locations in developing areas, and supporting alternative modes was chosen by the CAC because it is overall the strategy that best meets the needs of the community. It is also the most likely to be supported by the community.

The plan will be carried out through a system of plan policies and implementing ordinances. The capital improvement projects (CIP) list and financial plan also set a path that will improve and build facilities as they are needed by the community. Projects and plans that support and encourage the use of alternative modes of transportation, such as public transit, walking to destinations, and bicycle travel, will offer people viable opportunities to make trips that don't require the use of their automobile.

There are three major components to the Maintain and Connect strategy, as described below.

Maintenance of the System. Streets, sidewalks, bike paths and other transportation facilities are expensive and time consuming to construct. Maintenance of facilities is an essential component of Junction City's strategy. As can be seen in the financial plan, most of the capital outlays during the planning period will be for maintenance of the existing system.

Increase the Connectivity of the System. Streets that frequently connect with other streets have several benefits to the user. They offer many opportunities to choose alternate paths to a location, which disperses traffic among the streets instead of funneling the traffic to one street that then becomes congested. Street systems of high connectivity also make it more convenient for the community to bike or walk to their destinations. In some areas that have been developed using a cul-de-sac system of land division it is inconvenient for residents to get from one side of their block to the other. Low connectivity systems discourage alternative modes and increase the dependency on the automobile.

The area between Junction City's city limits and the UGB has developed in patterns that make connectivity difficult. When land is partitioned haphazardly into smaller and smaller lots opportunities to connect streets, sidewalks and bike facilities are often lost. The City's challenge will be to consistently require rights-of-way that can be used to improve connectivity in the future and scrutinize right-of-way vacation requests to see if the requested vacation could be used to help connect streets, bike and pedestrian systems. Pedestrian and bicycle paths can also be used in such areas to make it easier for people to use these modes for errands and trips.

Encourage Alternative Modes of Travel. This strategy is supported by maintaining the system, increasing the connectivity of the system, and through education/public information. As part of this planning process the CAC and staff developed a bike plan and pedestrian plan and began conversations with Lane Transit District (LTD) staff to improve the viability of the public transit system, particularly with respect to routing and scheduling. All of these efforts support and enrich the overall strategy of the Junction City TSP.

B. Financing Plan

Streets

The financing plan sets out improvements to the Junction City streets, sidewalks and bike facilities and estimates their scheduling and cost. Projects are identified as to whether they are the responsibility of the City or another party, such as a developer, Lane County, etc. One glaring omission is that Hwy. 99 improvements are not addressed, as it is unknown at this time

what improvements might be needed or what those improvements might cost. To address this issue this TSP contains a recommendation that a refinement plan be done with close cooperation between the community and ODOT.

For purposes of scheduling, improvements are listed as short-term (2000-2001), medium term (2002-2007), or long term (2008 and beyond).

The City's revenue is projected as follows:

Street Improvement Revenue 1998-99

State Tax Street Revenue	\$190,201
Lane County Road Fund	96,275
Burlington Northern Franchise	<u>40,772</u>
Total	\$327,248

In addition, there is a small amount of Systems Development Charge money available that is dependent upon the amount of development each year which has not been included in the above figures.

Following shows how these revenue funds have been increasing or decreasing over the recent past.

Source	FY 94/95	FY 95/96	FY 96/97	FY 97/98
State Tax Street Revenue	173,612	181,464	184,557	191,141
Lane County Road Fund	132,104	132,104	132,920	132,129
Burlington Northern Franchise	65,400	0	36,325	36,325
	<u>371,116</u>	<u>313,568</u>	<u>353,802</u>	<u>359,595</u>

If we use an average amount of \$360,000/year with no increase we come up with a total of \$7.2 million available for transportation improvements over the planning period.

The table below shows estimated cost amounts for the short, medium and long term street projects.

Street Improvement Cost Projections (Note: excludes Lane County Projects)

Responsible party	Short Term	Medium Term	Long Term	Totals
City - Construction	312,000	1,247,200	365,420	1,924,620
Overlay	138,125	203,171	0	341,296
Others	0	598,400	1,006,000	1,604,400
Totals	450,125	2,048,771	1,371,420	3,870,316

Short Term Projects will require \$450,125, which appears to leave a balance (\$720,000 - \$450,125 = 269,875). The balance will help finance the medium and long-term projects.

Medium Term Projects. The period 2002-2007 is a five year term projected to bring \$1,800,000 to pay for \$1,450,371 in city projects.

Long Term Projects. The period 2008-2015 is an eight year period projected to bring \$2,880,000 in revenue. Only \$365,420 in city projects have been scheduled.

It should be noted that these are capital improvement projects for which the city is financially responsible. Most Lane County Urbanization projects are not included in this analysis.

Bike/Pedestrian System

The most expensive project in this category is the improvement of the downtown area between 8th and 4th Avenues from Ivy to Front Streets (city cost \$750,000). This project is listed as Project #1 on the medium-term street and sidewalk projects list and is accounted for in the financing plan for streets.

At this time (fall, 1999) the City has approximately \$40,000 in its Bicycle Reserve Fund. Annual revenues to that fund are expected to increase by about \$1,800 per year. Costs for the projects listed in this plan and shown on Map 14 total \$54,500. Thus, some projects will need to be deferred, paid for with grants, or funded from another source. A source of funding that needs to be explored is the State Highway Division's Bicycle Grant program.

Transit Projects

This plan includes \$10,000 in estimated costs for transit system projects. This \$10,000 is listed as a long-range expense to Lane Transit District for park and ride improvements. The expected

cost is for a covered shelter. The shelter could be located at a city parking lot or some other lot that would be available for low or no-cost. All other projects in this category could be accomplished through existing staff coordinating with other agencies or organizations.

C. Conclusion

The above financing plan shows that the city can meet its projected transportation system costs with projected revenues if it can obtain a few additional small grants for its bicycle program. However, it will take a coordinated effort and outreach to the police, schools, other organizations and agencies. Staff time will need to be directed/redirected to accomplish the objectives of this plan and the completion of these projects and activities. The city council should designate a position in the city government responsible for coordinating this effort to ensure its success.

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Junction City Transportation System Plan

March, 2000

Appendices and Supporting
Documents

Prepared for the City of Junction City
by Lane Council of Governments
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Appendix A

Existing Conditions

A. Introduction

The development of the Junction City Transportation System Plan began with an assessment and evaluation of the existing transportation system which includes streets, sidewalks, bicycle paths, public transportation and rail. The existing land use was updated to determine the number of acres that are vacant or in agricultural use. The natural and cultural features were also identified and considered in relation to the transportation system and future growth potential within the city.

B. Inventory of Streets, Sidewalks, and Bikeways

A complete inventory of Junction City's street system was conducted during the summer of 1996. All roadway segments within the urban growth boundary were evaluated for pavement condition, number of lanes, and surface type. The pavement width and right-of-way width for each segment was also recorded along with jurisdictional responsibility and areas of access control. Other information collected includes the number and location of traffic accidents and average daily traffic counts.

1. Methodology

Gathering the information for the inventory involved going to Junction City and looking at all of the streets and sidewalks in the city. This information was recorded on large paper maps. The information was then entered into a database linked to ArcView, a program that can create maps based on that information. In some cases, the information is only available on the paper maps and was not entered into the database. The inventory tables are based on the following terms and explanations.

Name

Name of a road for which there are one or more segments in the study area. Each record refers to attributes of a single segment, where a segment is a stretch of road or road right-of-way typically ending where intersected by another street or significant boundary or break-point (e.g., the UGB). Multiple segments have the same name, so a segment's *unique* name is a combination of "Name" + "From" + "To", such as: "6TH ST *from* A ST *to* B ST". Where no name was known, the code "unknown" was entered.

From

The name of the street (or one of the streets) touching the West or North end of the segment. "From" and "To" are arbitrary for most non-grid streets. If the street does not

continue beyond the *from*-point, a code of “START” was entered. Where no name was known, the code ”unknown” was entered.

To

The name of the street (or one of the streets) touching the East or South end of the segment. “From” and “To” are arbitrary for most non-grid streets. If the street does not continue beyond the *to*-point, a code of “END” was entered. Where no name was known, the code ”unknown” was entered.

Length

The length of the roadway segment in feet -- derived from Arc/Info calculations, ArcView estimates, or field measurements. Populated (i.e., 456.783) decimal places indicate the source was Arc/Info; whole numbers indicate ArcView estimates or field measurements.

Functional Class

The Citizen Advisory Committee worked with staff to come up with the functional class descriptions for roads within the city which are described in the policy section of the report. They then classified each street by its existing function. Lane County has its own functional class system for roads in their jurisdiction.

Roadway Condition

The condition of the paved portion or “roadway” of the segment. The basic categories are based on ODOT standards. Special codes were used to identify other segment conditions. Varying conditions were not identified below the segment level. The following is a key to all codes used in this field (*the POOR, FAIR and GOOD categories were adapted from ODOT definitions*):

Code

Meaning

POOR Paved roadway. Areas of instability, marked evidence of structural deficiency, large crack patterns (alligating), heavy and numerous patches, and/or deformation very noticeable. Riding quality ranges from acceptable to poor.

FAIR Paved roadway Generally stable, with minor areas of structural weakness evident. Cracking easy to detect, patched but not excessively. Deformation is more pronounced and easily noticed. Good riding quality.

GOOD Paved roadway. Stable, may have minor cracking, generally hairline and hard to detect. Minor patching and some minor deformation may be evident. Very good riding surface.

GRAVEL	Segment has gravel surface instead of paved roadway.
UNBUILT	Segment roadway is inaccessible, unsurfaced (pavement or gravel), or altogether absent, but right-of-way is not vacated.
REMOVED	Segment of paved roadway was removed, but right-of-way is not vacated.
OUTSIDE UGB	Segment is outside the study area, but has been included for mapping purposes.

Sidewalks

Presence of sidewalks along the segment. Codes used are as follows:

Code	Meaning
FULL	Full, unobstructed, unbroken sidewalks present on both sides of the roadway.
PARTIAL	Sidewalks present, but partial (obstructed or broken on either side and/or missing on one side).
NONE	No sidewalks present along existing, adequate roadway.
NA	No sidewalks present due to lack of adequate roadway (road condition is gravel, unbuilt or removed).

Bike Lanes

Presence of bike lanes or shoulders along the segment. Codes used are as follows:

Code	Meaning
FULL	Full width, unobstructed and unbroken, paved bike lanes on both sides of the segment, either striped lanes or paved shoulder.
PARTIAL	Bike lanes present, but partial (obstructed or broken on either side and/or missing on one side).
NONE	No bikelanes present along existing, adequate roadway.
NA	No bikelanes present due to lack of adequate roadway (road condition is gravel, unbuilt or removed).

No. of Lanes

Presumed to be “2” in most cases, and presumably two-way unless otherwise noted. Odd numbers of lanes indicate the presence of an additional center turning-refuge lane. Gravel roads were given a number of lanes of “1”. Unused rights-of-way were given a number of lanes of “0”.

Road Width

The width of the paved portion of the segment (the “roadway”) in feet. If unpaved, gravel,

or nonexistent, a “0” is shown. Variation was not identified below the level of the segment, so variation in width has been averaged to the nearest whole number.

- Right of Way (R.O.W.) Width

Width, in feet, of the right-of-way associated with a particular road segment. Variation was captured by a range, such as 40’-60’.

- Jurisdiction

The ownership of the right-of-way (and roadway) for the segment.

Sidewalk condition data was collected on field maps, but has not been entered on this table.

2. Inventory Tables

Information in these tables is linked to a Geographic Information System that is accessed through ArcView to produce some of the maps shown in Chapter Three, Modal Plans.

3. Traffic Counts

Traffic counts along Hwy. 99 are shown in this table.

4. Accidents

The data on accidents in the Junction City area is from ODOT and is based on accident reports submitted to the Division of Motor Vehicles between January 1, 1991 and September 30, 1995 that involve more than \$500 in property damage and/or result in an injury. There were no fatalities on this list. A map showing the location of these accidents is shown in Chapter Three in the section about the Street System.

accident table

accident table
accident table

accident table

accident table

accident table

Cultural and Natural Resource Features

NATURAL RESOURCES

Slope

Junction City is located in a relatively flat plain. There are no slope constraints within the urban growth boundary (UGB).

Soils

Soil types can influence development ability because of variations in stability and permeability. Unstable soils can shrink or swell limiting the development of structures on such soil. Permeability can influence the soil's ability to drain, with low permeability soils creating areas of ponding, limiting septic system effectiveness, and increasing flooding potential.

According to the *Soil Survey of Lane County Area, Oregon*, published by the Soil Conservation Service, soil conditions in Junction City consist predominantly of silty clay loam, isolated areas of silty clay loam associated with a seasonally high water table and moderately low permeability, isolated areas of gravelly silt loam, and ribbons of silty clay loam along the banks of drainageways.

About 15 percent of Junction City (within the UGB) is classified as having severe limitations for building based on soil shrink-swell potential and permeability. Transportation zone 1 is influenced the most with over 2/3 of the zone indicating soil limitations. Two ribbon like bands of soil limitation areas extend in generally a north south direction largely adjacent to drainage channels. These bands may influence full development potential in 11 of the 18 TAZs. Although these areas are identified in the Junction City Comprehensive Plan as having severe soil limitations, the Plan does not specify the extent of these limitations.

Surface Water Drainage

Surface water features in Junction City primarily consist of two intermittent streams and two artificial lakes. Two seasonal channels for Flat Creek and a seasonal channel of Crow Creek, flow in a northwesterly direction through the city. In the western portion of the UGB are the city's sewage treatment lagoons forming artificial lakes that are connected hydraulically with Crow Creek.

Junction City participates in the Federal Flood Insurance Program (FEMA), and in association with that program has identified flood plain and hazard areas within the city. If a development proposal is located within the designated flood hazard zone, developers must follow standards in the Junction City Ordinance establishing anti-flood damage building requirements to ensure “appropriate safeguards” are used to protect life and property from flood hazards. Actual build-out in these areas may be less than non-flood prone areas since site design, engineering, construction, and insurance costs are often higher.

The two channels of Flat Creek have been modified to carry floodwater through the city, lowering the frequency of flooding in Junction City. The city has adopted a Flood Hazard Area Management Plan prohibiting construction of buildings within these floodway channels. Areas east of the Southern Pacific Railroad tracks are subject to the most serious flooding and flooding is considered a limiting factor which prevents intense development of residential, commercial, and industrial land uses in TAZs 6, 13, and parts of 14. TAZs 3 and 15 also may experience building limitations due to flood hazards as about 15 to 20 percent of these zones are located within the 100 year flood plain.

Wetlands

The presence of wetlands may influence the extent of development and/or where it occurs. Development proposals that may impact wetlands are regulated and permitted by the Army Corps of Engineers and the Oregon Division of State Lands. If wetlands are located on property, before development can occur the, 1) boundaries of the wetland must be clearly delineated, 2) wetland impacts should be avoided if possible, and 3) if impacts do occur, mitigation must replace the features lost by development. Junction City also requires that for sites identified as wetland resources, a Goal 5 analysis be conducted before development can occur.

Wetland features for this report are based on the National Wetlands Inventory (NWI). The NWI provides basic data about the general characteristics and extent of wetlands in the nation. The NWI identifies the general boundaries of wetlands, however, in many instances actual wetland boundaries and features are more extensive than what is identified through this national classification system.

About 6.7 miles of linear wetland features are identified by the NWI within the Junction City UGB, primarily corresponding to the drainage channels of Flat and Crow Creeks. About 36 percent (2.4 miles) are within the city limits. About 64 acres of polygon type wetlands are within the UGB, with only 16 percent (10.5 acres) being within the city limits. A total of 12 of the 18 TAZs in Junction City contain wetlands of one or both types. Seven zones have polygon shaped wetlands, and 11 zones have linear features.

Other Significant Natural Features

According to the Junction City Comprehensive Plan, there are no known fish or wildlife species classified as “rare” or “endangered” within the city’s UGB.

CULTURAL FEATURES

Parks and Open Space

Junction City currently has seven neighborhood parks totaling about 10 acres inside the city limits. These include:

Bailey Park - Southeast corner of Kalmia and Bryant Street - 2.6 acres

Bergstrom Park - North end of Dorsa Street - 2 acres

Founders Park - NE corner of W. 5th and Holly - .25 acres

Laurel Park - NW corner of W. 14th and Laurel - 1.5 acres

Lyle Day Park - NW corner of E. 5th and Deal - 2 acres

Tequendama Park - south end of Shara Place - .5 acres

Washburne Park - SW corner of W. 6th and Laurel - 1.25 acres

Four other facilities provide recreation opportunities and may influence transportation needs. These include:

Dutch’s Softball Field - W. 15th and Kalmia

Viking Sal Senior Center - 245 W 5th

Lions Building and Kindergarten - 1450 Kalmia Street, in Laurel Park

Junction City Municipal Swimming Pool - North end of Laurel Street

Junction City’s plans for future facilities focus on the need for expansion of neighborhood and community parks. Future acquisition will emphasize lands which are adjacent to established recreation facilities and schools, and parcels located within new subdivisions.

Historic Features

The location of significant historical features is important from a transportation perspective for

two reasons.

1. The local community may desire to provide better access to these sites, and
2. Design of transportation systems should ensure that these sites are protected.

Junction City has clearly defined historic preservation goals and goal implementation measures stated in its Comprehensive Plan. These goals provide for the recognition and protection of significant buildings, sites, and other historic elements. Implementation of these goals includes the use of a conditional use process to protect historic sites, and a requirement that these sites will be incorporated into plans for any new sub-division or commercial or industrial projects. However, recent legislation has changed allowing landowners to demand that their property be removed from comprehensive plan historical inventory designation.

Eight sites, half of which are located in TAZ 12, are included in Junction City's historical resources inventory. These eight sites are:

Stanley House, 617 Juniper Street

Oregon Electric Depot, 5th and Holly Street

Oddfellows Lodge Hall West 6th Avenue and Greenwood Streets

Lee Drug Store, 467 Front Street

Faith Lutheran Church, 920 West 6th Avenue

Bushnell House, 248 Holly Street

Milliron Cemetary, north side High Pass Road., near Pitney Lane

Schools

Junction City has three public schools, including a high school, middle school, and an elementary school. School locations generally have access to, but are located away from major arterials. Locations are listed below:

Junction City High School - South of 6th Street, west of Maple Street

Oaklea Middle School - West of Rose Street, north of Tropicana Court Street

Laurel Elementary School - West of Laurel Street, near 14th Street

Summary of Natural Features/Potential Development Constraints by Transportation Zone

Junction City

Transportation Zone	Flood Hazard	Soil Limitations	NWI Wetlands	Water Features
1		65-70%	8 sites including 2 sewage lagoons. Crow Creek	Crow Creek
2	3-6%	5-8%	3 sites (1 likely developed) Crow Creek	Crow Creek
3	15-20%	4-6%		
4				
5	75%	8-12%		
6	85-90%	15-20%	Open channel	Open channel
7				
8				
9	5-8%	5-8%	Crow Creek	Crow Creek
10	8-10%	20-25%	Crow Creek	Crow Creek
11		25-30%	Crow Creek 1 site	Crow Creek
12	2-4%			
13	94-97%	27-31%	1 small site	
14	5-10%	10-15%	2 sites Flat Creek	Flat Creek
15	15-20%	17-22%	Flat Creek	Flat Creek
16	7-10%	5-7%	2 sites Open channel	Open channel

17			1 site	
18			2 sites 4 open channels	Open channels

**Cultural Features
by Transportation Zone
Junction City**

Transportation Zone	Parks/Open Space	Schools	Historical Sites
1			
2	Park - 1.5 acres Swimming pool	Middle School Elementary School	
3			
4			
5			
6			
7	Park - .25 acres		Lee House
8			Stanley House
9			Faith Lutheran Church
10	Park - 1.2 acres	High School	Milliron Cemetary
11			
12	Park - .5 acres		Oregon Electric Depot Oddfellows Lodge Hall Lee Drug Store Bushnell House
13	Park - 2 acres Park - 2 acres		

14			
15	Park - 2.6 acres		
16			
17			
18			

Appendix B

Population and Employment Projections

Junction City Transportation System Plan

Please note: As this study was being completed the city was notified that a medium security prison housing 1,600 inmates would be constructed at Milliron Road at the south end of the UGB. The Dept. of Corrections had not finalized their plans as of the date of this document. When the Department's plans are finalized the City should request that they revise the projections contained in this Appendix and re-run the model to determine the prison's traffic impacts.

As part of the transportation system plan for Junction City, projections of housing units were created for 2015. These housing units are used in the transportation modeling process to identify the traffic counts and patterns associated with residential development for the 20 year planning period.

To develop 2015 projected housing units for the Junction City UGB, various assumptions about population growth and residential development were necessary. Below is a description of these assumptions.

Population

In 1990, the population inside the UGB was estimated at 4,596. Approximately 900 persons were residing outside the city limits inside the UGB; the population outside the city limits but inside the UGB is not expected to increase since most growth will happen as land is annexed into the city. Whatever growth does occur in this area is projected to be accommodated by the losses that occur through annexation. For that reason, it is assumed that the number of persons outside the city inside the UGB will remain constant over the planning period

The population of Junction City as a percent of Lane County population has been increasing slowly over the last four decades. Projecting this trend into the future and then applying this percent to the Lane County population projections for 2015, results in a city population of about 6,500 in 2015. When the estimated 900 people who currently live outside the city limits but inside the UGB are added to this, it results in a 2015 UGB population of 7,400. This total 2015 UGB population of 7,400 is very close to the growth rate of 1.9% for the UGB population, which was the recommendation of the TSP Citizen Advisory Committee.

Thus, the 2015 population projection for the Junction City UGB is 7,400. As mentioned, this is an annual average growth rate of 1.9 percent. This rate is higher than the city's 1.4 annual average rate that occurred during the 1980 to 1995 time period, a period which includes the worst recession of Oregon's history, but is lower than the 2.2% AAGR that occurred to the city between 1990 and 1997. It is also lower than the 3.4% AAGR cited in the original comprehensive plan and its 1994 periodic review. This projection has been coordinated with the Lane County population projections.

	Without Prison	
	1990	2015 Projection
City Limits Only	3,670	6,500
Urban Growth Area Only	926	900
Total within the Urban Growth Boundary	4,596	7,400

Number of Households

To determine the number of households requiring housing in 2015, the number of persons living in group quarters facilities must be subtracted from the population and the remaining household population must be divided by an assumed average persons per household. In the last 20 years, the group quarters population has been fairly constant. In 1980, the number of persons in group quarters facilities was 105, by 1990, it was 96. It is assumed, for this analysis, that in 2015 there will be 100 persons in group quarters facilities.

Average household size has been declining both nationally and locally over the past 30 years and is expected to continue to decline but more gradually. Average household size has been declining in Junction City based on 1970, 1980 and 1990 decennial census data. In 1970, average household size was 2.78. By 1990, it had dropped to 2.42. It is projected to decline to 2.27 by 2015. This is similar to the decline projected for the Eugene-Springfield Metro Area. This average household size results in a total of 3,216 households in 2015 inside the UGB $((7,400 - 100)/2.27 = 3,216)$.

Number and Types of Housing Units

Determining the number of housing units needed in 2015 requires assumptions about the percentage of housing units by housing type. In addition, to ensure a healthy housing market, a 2 percent vacancy rate was assumed for owner units and a 5 percent vacancy rate for renter units.

The assumption regarding the owner/renter split by housing type was taken from the 1990 Census.

To develop an assumption on the percentage of housing units by housing type, the Lane County Geographic Information System and the existing Junction City Comprehensive Plan were reviewed. Both sources showed a similar distribution. This distribution has been used for the 2015 distribution of housing units by housing type.

<u>Housing Type</u>	<u>2015 Percent of Units</u>	<u>2015 Number of Units</u>
Single-Family detached	60.0	1,995
Multi-Family	23.0	765
Duplex	7.0	233
Manufactured Dwellings	10.0	332
TOTAL	100.0	3,325

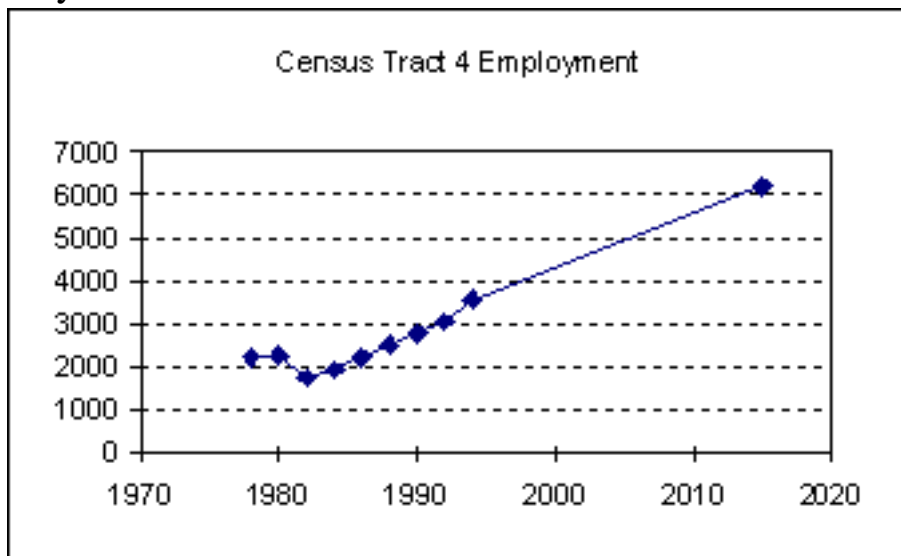
Thus, it is projected by 2015 there will be the need for 3,325 housing units in the Junction City UGB, an increase of 1,209 units between 1994 and 2015.

Junction City Transportation System Plan Employment Projections

As part of the transportation system plan for the Junction City urban growth boundary (UGB), projections of employment were created for 2015. These employment projections are used in the transportation modeling process to verify trip rates and travel patterns associated with commercial and industrial development, in order to anticipate travel behavior over the 20 year

planning period.

The 2015 employment projections for the Junction City UGB area are largely based on employment projections for Lane County. The County projection was used to develop a projection for Census Tract 4 in which Junction City resides. The Census Tract projection was then used to estimate a projection for the Junction City UGB area. This methodology was selected because more reliable historical data is available for Census Tract 4 than for the Junction City UGB.



The Data

Annual historical employment data for Lane County, provided by the Oregon Employment Division, was used for this analysis. Biannual historical employment data from 1978 - 1994 for Census Tract 4 was also used. Although total employment in the Junction City UGB is known for 1994, it is not available for any other year.

The Census Tract Projection

The historical data for Lane County and Census Tract 4 were used to develop a trend for Census Tract 4 employment as a percent of Lane County employment. The extension of the 1978-1994 trend was used along with the Lane County employment projection for 2015 to arrive at a 2015 projection for the Census Tract.

Employment by Area Geographic Area	Total New		1994 - 2015 Average Growth Rate
	1994	2015	
Lane County	125,900	177,074	1.6%
Census Tract 4	3,557	6,197	2,640

The Junction City UGB Area Projection

In 1994, employment in the Junction City UGB area comprised 81% of the total employment in Census Tract 4. Assuming this percentage remains the same, total employment in the UGB area would be 5,002 in the year 2015.

However, because of Oregon planning rules, most of the growth in employment in the Junction City area should occur inside the UGB. Therefore, Junction City UGB employment should increase as a percent of total employment in Census Tract 4. In 2015, then, Junction City UGB employment should be more than 81% of Census Tract 4 employment.

If all of the employment growth projected to occur in the Census Tract occurs inside the Junction City UGB (no growth outside the UGB), the projection for the UGB area would be 5,511. This would mean an increase in employment in Junction City's UGB by 2,640 employees over the 21 year period, or around 125 employees per year on average.

Employment by Area Geographic Area	1994	2015	Total New Employees	UGB % of CT	1994 - 2015 Ave. Growth Rate
Junction City UGB	2,871	5,511	2,640	89%	3.2%

It is reasonable to expect that there will be some increase in employment outside of the UGB since firms located there may grow. However, to be consistent with planning guidelines, the UGB area should be able to accommodate most new employment expected to locate in the census tract since it is the only city in the area.

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Last Saved: October 5, 1999

Appendix C

Transportation System Needs

1. Needs and Alternatives

The following needs were identified by the CAC through data review, the survey, and comments from the public.

Hwy. 99 through the downtown area (1st to 18th) is becoming congested and will become critical in some areas during the planning period if nothing is done. This is the most serious challenge to planning the City's transportation system, as it affects all other modes and strategies of the TSP. According to the community survey on transportation issues the most widely supported solution among the community is adding protected left turn lanes to the traffic moving north/south. However, due to a limited right-of-way width (60'), it may be difficult to add protected left turn lanes.

ODOT staff have proposed consideration of a three lane facility with a center barrier and protected left turn lanes but have not been able to offer additional information on how reducing the highway from four lanes to three would affect traffic and businesses located along the highway.

Many large trucks use the highway and CAC members were interested in developing alternatives or a truck route to reroute these trucks to other streets or roads. Members of the CAC expressed interest in a by-pass but were told by ODOT staff that because of funding and land use regulations such an option was unlikely. It is also uncertain how downtown businesses would react to a bypass.

Additional problems posed by the highway running through the center of town include difficulty for pedestrians crossing the street at non-signalized intersections and problems for motorists and bicyclists trying to cross Hwy. 99 at non-signalized intersections.

The survey conducted as part of this plan found that the community does not support the idea of a couplet system as a means to address congestion on Hwy. 99.

The Oregon Department of Corrections has informed the City that a 1600 bed medium security prison will be built at the south end of the UGB at Milliron Road. Preliminary plans include installation of sewer and water lines down the east side of Hwy. 99 south of 1st Avenue. This would encourage development of the industrial lands along the east side of the highway. Access management will be important to the development of these industrial lands. An access road

could be used to reduce the number of accesses to the highway in this area. The City will work with the Department of Corrections and ODOT to resolve these issues.

The CAC proposed that a refinement study of Hwy. 99 be done within the UGB. Because Hwy. 99 is a state facility the City cannot begin to solve these problems without the support and participation of ODOT.

Bicycle travel is quite easy within the older parts of the City, which was laid-out in a grid system. Recently developed areas to the west of town (much of which is in the urban growth area) often have poor connectivity, which is sometimes due to the random parcel size, patterns of existing development, and the shape of the parcels, which can make it difficult to continue streets. Such areas discourage pedestrian and bicycle travel. In that area north/south connectivity is poor and it is difficult for elementary and high school students to bike to their schools without traveling on busy streets. The CAC's street plan, bicycle plan and list of street improvements include retrofit facilities to address these problems.

For the most part, the pedestrian system is excellent with the exception of the areas described above and some areas to the south. The same improvements mentioned above will help improve those areas for pedestrians.

The public transportation system is provided by Lane Transit District (LTD). Staff and the CAC have established contact with planning staff of LTD to discuss ways to improve scheduling for the Junction City routes, which often arrive after a major employer's shift has changed, making bus transportation problematic for those workers who would use it if they could get to work on time.

In May, 1997, a telephone survey was done for the Junction City TSP. The report and survey instrument are included in the technical appendices of this plan (see Appendix F). An interesting thing to note is that the idea of a park-and-ride was not very popular with those interviewed; however, one-quarter of those surveyed felt that the main transportation issue for the city was the "limited schedule" and infrequent "service to Eugene". The CAC will continue these discussions with the community and the LTD in an effort to improve scheduling, service and ridership.

Para-transit and transit options for the elderly are limited by funding, although some services are available. For more on this topic, please see the description in Chapter 3 on these services.

The TSP process has not discovered that there are any unmet pipeline needs.

Trains, both the Burlington and Union Pacific lines, run through the center of town east of the highway in a north/south direction. The City would like the Burlington tracks in Holly St. to be

removed. Having another route parallel to Hwy 99 could relieve pressure on highway and allow some options in dealing with problems associated with the highway. However, Burlington signed a 20 year contract in 1992 and it is unlikely that the tracks will be removed any time soon. This will likely preclude using Holly St. for a couplet, though the idea of using a couplet was not popular with survey participants, so this may be a moot point.

Junction City is fortunate that it has good access to rail service and several local businesses use rail to transport goods. The industrial area south of 1st St. along Hwy. 99, most of which is in the UGB, has rail lines all along its length, which could be beneficial to manufacturing companies interested in locating there when City services are made available.

2. Transportation Alternatives

According to modeling done as a part of this TSP, parts of Hwy. 99 and other streets intersecting the highway (1st Ave., 6th, and 10th and Prairie Rd.) will become highly congested by 2015. The CAC has reviewed this information and has identified a combination of strategies to address this problem, including

- system capacity improvements (handling vehicles more efficiently), such as a protected left turn lane at signaled intersections,
- improving alternate routes,
- increasing connectivity in developed and developing areas to disperse traffic from congested streets and roads,
- a truck route,
- installing a couplet system using a street parallel to Hwy. 99 from 1st street to the “Y” intersection (or possibly further) at the north end of town,
- a bypass, and
- improving the viability of alternative modes of transportation, such as walking, bicycling, and public transit.

These ideas are discussed below.

A. System Capacity Improvements

The concept of having protected left turns was widely supported by the participants of the survey and the CAC was highly interested in assessing their benefits in Junction City. The CAC was

interested in the idea of using a system of protected left turn areas at traffic lights between 1st Ave. and 10th Ave. to avoid situations where a car trying to turn left at the light backs-up traffic that is trying to go straight ahead. Such situations can severely decrease the capacity of the highway. The intersection at 1st already has left turn arrows and turn lanes. Unfortunately, stop light intersections at 6th Ave. and 10th Ave. have only a 60 foot right-of-way and it may not be possible to have protected turn lanes at these intersections without losing one of the existing through lanes. More study will be needed to see if this strategy can be implemented. However, protecting left turns was the most acceptable concept to those residents surveyed on transportation system improvements.

ODOT staff suggested that a raised landscaped median with protected left turn lanes through the downtown area might be used to relieve this problem. This might also make it easier for pedestrians to cross the street at un-signalized intersections in the downtown area. However, it remains to be seen how the community, including the business community along and near Hwy. 99, would react to such a facility. ODOT and the City should hold a workshop or conduct a survey to elicit community response to this idea.

The modeling of the intersection of Hwy. 99 and Prairie Road shows high congestion by the end of the planning period, possibly requiring the intersection to be signalized or requiring other solutions.

Junction City has been notified that the Oregon Department of Corrections will begin building a 1600 bed medium security prison at the south end of the UGB at Milliron Rd. in two or three years. Specific studies will be needed to ascertain the effect of this facility on the City's TSP. The CAC is interested in working with Corrections and ODOT on this study and will amend the City's plan accordingly when information is available.

B. Alternate Routes

The model shows that Hwy 99 will become congested within the planning period if nothing is done to increase its capacity or reduce traffic using the highway. One way to address this would be to enable traffic to use alternative routes.

It appears that most of the traffic problems in Junction City occur when traveling in a north/south or south/north fashion, but east/west connectivity can also impact options for all modes of travel by allowing or disallowing access to alternative routes. By improving alternate routes a portion of this traffic might possibly be moved from Hwy. 99 to the alternate routes.

Alternate routes and connectivity are discussed below.

River Road. As much of the traffic is headed to Eugene from Junction City or to Junction City from Eugene, River Road might be improved to carry some of the traffic that would otherwise use Hwy.99. River Road connects with Beltline Road and the freeway system in and around Eugene and is a fairly direct route to shopping and work centers.

Oaklea Drive. Oaklea Drive, which lies to the west of the city limits, could be improved to carry traffic (including truck traffic), especially from Hwy. 99W (No.1W). A route connecting Oaklea to High Pass, High Pass to Pitney Lane, and Pitney Lane to Highway 36, could route part of the traffic from Hwy. 99 and disperse it to the south and west.

Deal Street. Deal Street could be improved and extended to First Street (possibly through 6th Ave. and Birch St.) to encourage traffic to avoid Hwy. 99 between 18th and 1st Streets, particularly in conjunction with improvements to River Road. However, Deal St. is a residential street and increased traffic could cause the concern of the residents there.

Love Lake Road. This road is under Lane County jurisdiction and, if upgraded, could be used to route traffic from Hwy. 99 (north of the “Y”) to River Road without going through the city. The CAC, however, reported that there may be drainage problems associated with the roadway that would need to be addressed.

Truck Route. Truck routes were suggested by the CAC as a method of improving the traffic flow on Hwy. 99. A study would have to be done to determine how many trucks actually use Hwy. 99 and how and where a truck route could be located and operated.

The survey showed only a slightly favorable reaction to the concept of a truck route. However, as traffic increases the community’s opinion might change.

Couplet System. The city’s comprehensive plan had provisions that seemed to preserve the option of using Juniper St. for a one-way couplet. Holly Street could also be used as a couplet if the existing railroad tracks were removed. However, the survey revealed that about three-in-five of those surveyed held very unfavorable feelings to a couplet system.

Bypass. Another possible scenario is a bypass of the city. ODOT staff, however, have stated that a bypass is unlikely because of financial constraints and land use regulations.

Extension of Hwy. 36 to I-5. This suggestion came out of the “Open House” held in June. Someone suggested that connecting Hwy. 36 with I-5 could alleviate many of the problems that will occur in the next 20 years by routing trucks and excess traffic to the interstate rather than through Junction City. This would be a high cost project and would also be very difficult because of land use regulations. In spite of this it should be kept in mind in the event that the

opportunity arises to add a direct route to I-5.

Connectivity

Connectivity is simply how and where streets connect or intersect with each other. The older sections of town were laid out in a grid, which provides very good access to choices of routes for all modes of travel. When you look at more recent land division and street patterns it is immediately apparent that by getting away from the grid system you also diminish connectivity. In some cases cul-de-sac development, with a limited number of streets and long stretches where there are no intersections, precluded getting from one side of the block to another. In other areas children couldn't get from their subdivision to a near-by school except by following a long route that included using very busy streets.

With modern styles of land division you often find this type of low connectivity. Often, only one or two streets serve as entrances/exits. Traffic is focused onto collector and arterial streets rather than disbursed through the community, causing concerns about increased traffic from those who live on the collectors and arterials. Walking and biking to destinations is discouraged by making routes less direct and forcing walkers and bikers onto busy streets.

The CAC was very interested in looking at system maps produced for this project. As can be seen by the system maps Junction City's street system began as a standard grid system which covers the area between 18th and 1st streets and between Nyssa Street and the eastern city limits at Alder St.. Newer areas developed outside of this area suffer from lack of connectivity because of the frequent use of cul-de-sacs and streets that are not widely interconnected.

The CAC studied this problem and decided that the city should decrease the use of this type of development while encouraging the use of a grid system wherever possible. In some areas of existing development connectivity can be improved; however, in other areas the land division and existing development patterns constrain the city's ability to improve the connectivity of the street system. A conscious effort will be needed to improve the existing street system's connectivity and require new development to fit the city's directives in this regard.

The grid system also provides excellent connectivity for pedestrians and bicyclists and the CAC has prepared a plan to interconnect and improve these facilities outside of the core grid.

By improving connectivity the city will improve the viability of alternative modes of transportation, such as walking, bicycling, and public transit. However, it is difficult at times to continue the grid system of streets in outlying areas where land divisions have occurred and small lots of various shapes and sizes exist. Nevertheless, it would benefit the city to require in all

cases where it is reasonable that land divisions continue and adapt to a grid system.

Adoption of the following policy into the comprehensive plan and parallel amendments to the ordinances would address this issue.

Policy _____. In all cases where it is reasonable, land divisions shall continue existing streets, set aside rights-of-way for future streets and intersections that will encourage connectivity, and continue the city's grid system. Cul-de-sacs and other low-connectivity street types shall be discouraged except where topography, land features (wetlands, drainage systems, etc.) or land development patterns preclude high connectivity street patterns.

Other Alternatives

Other alternatives exist for Junction City. These are combinations of strategies and are addressed below.

No Build Scenario. Under this scenario no new facilities would be built and facilities would be maintained to their present condition. Though savings could be captured this scenario would fail due to the fact that the City will grow substantially during the planning period. New housing areas will be needed and must access the city's grid system for goods and services. Also, without the retrofit streets contained in the list of projects no improvement in connectivity would take place, which would continue the exiting problems, such as those of the students walking or riding a bike to Oaklea Middle School and Laurel Elementary School who must take inconvenient routes or who must walk or ride their bicycles on busy streets.

Business as Usual. It would be possible to follow a "business as usual" alternative. Under such an alternative the City would continue to allow low connectivity land divisions. The result would be more traffic congestion on the collectors and arterials, which would then need to be upgraded. Capacity on Hwy. 99, Prairie Road, 1st, 6th, 10th, and 18th Avenues would be reached earlier than with the preceding alternative. Residents along those streets would likely object to such plans and the resulting processes would be quite controversial.

Alternate Modes Only. Another alternative is to greatly reduce reliance on automobile travel and focus on alternative modes. However, Junction City is a conservative town and many residents rely on automobile travel for conducting their personal and business affairs. There are also a large number of trips to Eugene/Springfield Metro area for employment, shopping, etc. To expect the community to wholeheartedly support this approach would be foolish. However, when blended with prudent steps to improve and better manage the City's overall transportation

system, alternative modes can make major contributions to the overall system. Since 92% of residents' trips are conducted by car efforts to encourage alternative modes can make a major contribution to managing traffic in the city.

The CAC rejected these three alternatives for a more balanced approach that encourages the use of alternative modes by making sure that the use of alternative modes is a viable option and improving the connectivity of streets in built areas and areas that are yet to be developed.

Maintain and Connect. This approach makes the most sense for the Junction City community. The City's transportation system is functioning at an acceptable level of service and needs few major fixes aside from the inevitable problems of Hwy. 99 capacity. Maintaining the existing roads, connecting those in areas of poor connectivity, and supporting alternative modes makes the most sense, as can be seen in the following chart. It is also the most likely to be supported by the community.

JC TSP Table - Evaluation of Alternatives

This is not to say that facilities will not need to be upgraded or that newly developed areas will not need additional streets. In those cases, developers will pay the cost and plan the streets according to their level of need. In other cases some little-used streets that have not been constructed according to City standards are scheduled to be upgraded.

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Last Saved: February 22, 2000

Appendix D

Policy Framework

A. Federal Policies

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

- “It is the policy of the United States to develop a National Intermodal Transportation System that is economical efficient and environmentally sound, provides the foundation for the Nation to compete in the global economy, and will move people and goods in an energy efficient manner.”
- “The National Intermodal Transportation System shall include significant improvements in public transportation necessary to achieve national goals for improved air quality, energy conservation, international competitiveness, and mobility for elderly persons in urban and rural areas of the country.”
- “The National Intermodal Transportation System must be the centerpiece of a national investment commitment to create the new wealth of the Nation for the 21st century.”

Clean Air Act Amendments of 1990

- Projects in transportation plans and programs must not contribute to violations in air quality standards set by the Environmental Protection Agency.
- Failure to show conformance with the standards will result in withdrawal of federal funds.

Americans with Disabilities Act (ADA) of 1990

- Mandates the access of public transportation to persons with disabilities.
- Establishes requirements for comparable paratransit services, to public transit, with an annual update of an ADA Paratransit Plan.

Clean Water Act

- The objective is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.
- Special consideration must be given to new facilities within areas that could impact water quality sources and sensitive areas (includes water run-off).

B. State Policies

Transportation Planning Rule

- Requires comprehensive transportation plans to be prepared for all Oregon cities.
- Requires plans to reduce reliance on the automobile.

Oregon Transportation Plan

- Sets policies for the state's transportation facilities and services for the next 40 years.
- Outlines the strategy the state has developed for implementing the policies and federal and state mandates.

Oregon Benchmarks

- Measurable indicators to assess progress toward broad strategic goals. The Benchmarks for transportation include:
 - increase the percentage of Oregonians who commute during peak hours by means other than the single-occupant vehicle
 - ensure that the percentage of Oregonians who are able to commute from home to work within 30 minutes does not decline
 - increase the percentage of streets in urban areas that have adequate pedestrian and bicycle facilities
 - reduce the backlog of city, county, and state road and bridges in need of repair and preservation
 - increase to 100% the portion of Oregonians living where the air quality meets government standards

C. Regional Policies

Lane County Transportation System Plan

The Lane County TSP updates the 1980 Lane County Master Road Plan. It provides coordination between and with local TSPs and statewide corridor plans. It also complements the Rural Comprehensive Plan for unincorporated portions of Lane County. It is still being developed and will be completed after Junction City's TSP is adopted.

Truck and Rail Objectives

1. Support rail freight service. For example, by:
 - Retaining land use designations of existing industrial sites north from Eugene through Junction City that allow the types of industrial development that uses rail for freight transport.
2. Support passenger rail service (including commuter service between Junction City and Eugene). For example, by:
 - Taking steps to provide inter-modal access to rail (e.g., auto, truck freight, bus, bicycle, pedestrian facilities).

Inter-City Bus Objectives

1. Work with inter-city carriers to increase the number of strategically located inter-city bus stops and to increase the frequency of service.
2. Improve inter-modal connections. For example, by:
 - Continuing to install bus shelters and bike lockers in urban and rural areas, and maintaining these facilities at the highest feasible standard; and
 - Creating multi-modal transportation facilities and services that create convenient and safe links with inter-city bus service in Eugene, Junction City, and, to a lesser extent, in rural communities along the Hwy 99 Corridor.

Bicycle Travel Objectives

1. Improve access, mobility, and safety for bicycle travel along the Corridor. For example, by:
 - Completing an adequate and connected bike system throughout the Corridor, i.e., a combination of consistent shoulder widths and off-street multi-use paths.
2. Enhance the inter-connection between bicycles and transit by planning and creating bicycle facilities at multi-modal facilities listed under other objectives of this Strategy.

Pedestrian Travel Objectives

1. Identify areas in urban and rural sections of the Corridor where pedestrian facilities are needed.
2. Meet identified pedestrian needs. For example, by:
 - Upgrading pedestrian facilities to urban standards (curbs, gutters, and sidewalks) and filling in gaps in sidewalks within UGBs;
 - Installing a center median or other pedestrian-safe area at intersections in urban areas;
 - Developing a refinement plan for the area between Junction City and Eugene that addresses pedestrian needs at the intersection of Hwys. 99 and 36.

Regional Connectivity Goal: Develop transportation facilities and services to provide a high degree of regional connectivity for users internal to the Corridor, including cities and unincorporated areas, as well as those passing through the Corridor.

Regional Connectivity Objectives

1. Improve regional connectivity through land use management, access management, and system improvements (passing lanes, re-alignments, and additional travel lanes).
3. Design land use patterns that provide efficiency through connected streets and access to alternative modes.
4. Develop strategies for alternative modes to connect places along the Corridor. For example, by:
 - Improving the facilities for inter-city bus (e.g., bus stations, park and rides); and
 - Improving connections between all modes, including rail freight opportunities.

Highway Congestion Goal: Reduce congestion through cost-effective approaches that integrate level of service standards, system improvements, refinement planning, alternative mode strategies, and land use, access, and transportation demand management.

Highway Congestion Objectives

2. Implement land use management and alternative mode strategies through comprehensive plan, transportation plan, and code amendments that plan for:
 - A connected local street system,
 - Land use patterns and transportation facilities that accommodate alternative modes (buses, bicycles, and pedestrians); and
 - Land uses that create safe and convenient inter-modal links, especially with inter-city bus service.
3. Identify specific areas along the Corridor for access management planning.
4. Implement demand management strategies (e.g. bus pass programs) by coordinating among public agencies and between the public and private sector to reduce reliance on the single-occupant automobile.
6. Study and develop a plan to address congestion issues in areas impacted by special events, such as Scandinavian Days Celebration, and other community celebrations.
7. Prepare a refinement plan, to address safety and congestion issues between Junction City and Eugene, that includes:
 - An analysis of safety and congestion issues in this area, including Hwy 99 where it goes through the downtown area ; and
 - An analysis of alternatives that includes, at a minimum, maintaining current facilities, alternative routes, alternative modes and inter-modal links, transportation demand management, access management, land use management strategies in Junction City and Eugene, and system improvements.

Safety Goal: Improve all facets of transportation safety within the Corridor through road improvements, improved visibility, education, enforcement, and refinement planning.

1. Prioritize safety improvements (e.g., signing, guard rails, shoulder-widening, turning lanes, turnouts, lane markings and improvements listed under other goals and objectives) for cars, transit, bicycles and pedestrians based on the severity and frequency of accidents; and where appropriate, work with property owners on right-of-way acquisition.

- Hwy 99 and the signaled intersections have a high rate of accidents. A refinement plan should consider this and make suggestions for making these intersections safer.

2. Increase education and enforcement. For example:

- Study the issue of speeding, and address documented safety problems, including referring high-speed areas to the County Sheriff's office for patrol.

Economic Goal: Promote economic health and diversity by the efficient movement of goods, services, and people and by retaining the viability of rail for freight transport, providing access to recreational opportunities, and providing appropriate access to natural areas that attract visitors to communities along the Corridor.

Economic Objectives

1. Encourage economic development in cities and unincorporated rural communities along the Corridor by retaining the viability of rail for freight transport to serve future industrial users. For example:

- Continue to support freight rail; and
- Retain industrial designations of land that could be marketed to rail users, consistent with Regional Strategies Goal 1: increase the raw supply and productive utilization of existing forest materials.

5. Support sustainable development (e.g. encouraging employment opportunities that provide family wage jobs in Junction City, reducing commute trips).

Social and Land Use Goal: Provide an integrated land use and transportation system that maintains the quality of life, addresses social needs, and promotes transportation-efficient land use while providing a safe and efficient road system for automobiles.

Social Objectives

3. Develop an integrated land use and transportation system that encourages alternative modes, enhances pedestrian and transit connections, and incorporates higher density and mixed land uses in urban areas. For example, by:

- Supporting connectivity in local street plans and providing building sites access to local roads that have access to Highway 99 (e.g. plan for alternative access to commercial areas adjacent to Highway 99 where access from the highway is prohibited);
- Increasing transit use;
- Coordinating with multi-modal facilities; and
- Developing a transportation system that supports a jobs/housing balance and transportation-efficient development in urban areas and rural

designations in rural areas (i.e., requires clustered development; redesignates land to support transit; and supports other land use strategies in the Junction City, Eugene-Springfield, and Lane County TSPs).

Environmental Goal: Provide a transportation system throughout the Highway 99 Corridor that is environmentally responsible, encourages the protection of natural resources, and maintains federal air quality standards.

Environmental Goal

1. Identify and preserve wildlife habitat, high value wetlands, and rare plants, minimize road construction impacts on wetlands, and where needed, improve mitigation techniques to replace what is lost to construction.
6. Encourage increased use of transit and ride-sharing to help protect waterways from polluted run-off.

Energy Goal: Provide a transportation system that minimizes transportation-related energy consumption by using energy-efficient and appropriate modes of transportation for the movement of people, goods, and services.

1. Focus efforts on improving opportunities to use alternative modes. For example, by:
 - Supporting passenger and freight rail movements;
 - Improving local transit and inter-city bus service;
 - Improving pedestrian facilities;
 - Promoting car pooling, telecommuting, and other strategies for transportation demand management;
 - Widening and maintaining shoulders and other facilities for bicyclists and pedestrians, and
 - Improving alternative mode connections.

D. Local Policies

Junction City Comprehensive Plan

Goals and Implementation Methods

The goals of the transportation element are listed below. They reflect the existing resource, its problems, and offers solutions to those problems.

A. A goal of the transportation element is the safe movement of vehicles over city streets.

Implementation Method.

1. An annual capital replacement program will be prepared and funded by the streets system development charge.

2. The Streets and Alley subcommittee of the City Council will make frequent recommendations to the Council of the conditions of city streets and traffic control.

B. A goal of the transportation element is to provide a transportation system which is responsive to the economic and social needs of the community.

Implementation Method.

1. The city will continue to support the LTD program as long as adequate and convenient bus service is provided to Junction City residents.
2. The city will continue to aid development of alternate means of transportation within the city limits.
3. The city will continue the practice of closing its streets within the Central Business District for the annual Scandinavian Festival.

C. A goal of the transportation element is to provide and coordinate the transportation system with other levels of government and private industry.

Implementation Method.

1. The city resolves to offer its comments during the review of the Oregon Six Year Highway Improvement Program and the Lane County Five Year Capital Improvement Program.
2. The city will develop cooperative agreements with the BPA, Northwest Natural Gas Co., Southern (Union) Pacific, and Burlington Northern Railroad Co. For the protection of major transmission facilities within the city.
3. The city will develop a Master Street Plan coordinated with the Lane County Department of Public Works and ODOT,
4. The city will request the Oregon Department of Transportation to conduct a trip generation analysis and traffic study for Junction City.

II. Transportation Modes

A. Automotive.

Implementation Method.

1. State Highways. It is Junction City's goal to encourage the Highway Division, Oregon Department of Transportation, to provide a safe, convenient and economic transportation system over existing routes by:

- (A) Installation of a traffic signal system at the intersection of West 10th Avenue and Oregon State Highway 99 West.
- (B) Modernize the intersection of Oregon State Highway 99 West and Oregon State Highway 99 East by:

- a. Providing a cross connection between the two state highways south of Link Lane.
- b. Reconstruction of the intersection in its present alignment but providing signalization at the existing intersection.

2. Relief of traffic congestion on Ivy Street (Hwy 99). The increasing level of vehicular traffic could be decreased by:

1. Construction of a bypass to the East of Junction City along the alignment with the future extension of the Northwest Expressway. The city is aware that federal and state funding support for such a major relocation are presently or in the extended future unavailable. However, because it is the city's position that such a relocation as a future highway project is an ideal solution to the increasing congestion through the city, it is determined that the city should continue to support the eventual relocation of Oregon State Highway 99 West.

(B) Implementation of specific goals as solutions to state highway transportation problems.

- a. The city resolves to cause inclusion of the previously mentioned programs into the Highway Division's Six year Highway Improvement Program.
- b. The city resolves to make application for state and federal funding when available.
- c. The city resolves to present its case for the need to solve the above problems at appropriate state hearings.

Policy: The city will coordinate with the ODOT in the implementation of the ODOT Six-Year Highway Improvement Program as is now or hereafter adopted.

(C). County Streets and Roads. Figure 5 indicates the streets within the city limits that are maintained by Lane County Public Works Department. Junction City supports Lane County's policy of improving county roads and streets within the city limits to city standards by federal timber and valorem tax receipts.

(D) City Streets. The city considers all improved city streets to be a resource which will be maintained. **It is a policy of this plan to encourage vacation of unimproved street rights-of-way between Ivy and Holly Streets. However, the city should be compensated by those adjoining property owners who benefit by receiving valuable commercial property.**

B. Railroads.

The city views the possibility of needing the full use of Holly Street as part of an important traffic grid system that will require the eventual relocation of the Burlington Northern Railroad tracks. The most logical right-of-way for the new BN track location would be adjacent to the existing

(Union) Pacific Railroad tracks. The city is presently studying its options and a possible timetable to cause the BN Railroad to relocate its main rail line.

C. Railroad Spur Lines

The increased cost of constructing new railroad spur lines to serve new industry causes the city to be concerned that the 12 existing railroad spurs serving present industry be protected through land use controls.

D. Rail Service to the Willamette Valley

It is a policy of this plan to encourage continued operation of Amtrak train service. Junction City resolved to offer its support to the concept or continued state and federal subsidy to this new service.

E. Air Service

It is a policy of this plan to encourage the continued development of the Mahlon Sweet (Eugene) Airport according to the airport's Master Plan.

F. Bus Services

It is a general policy of the city to require the installation of ramps at the intersection of sidewalks and streets.

It is a policy of the city to aid the transportation needs of the elderly and physically handicapped by encouraging Lane Transit District and Lane County Maxi-Taxi to continue such services.

Appendix E

GLOSSARY

of

TRANSPORTATION AND LAND USE TERMS

Access Control (Control of Access, or Controlled Access) - The regulated limitation of access. Achieved through the regulation of public access rights to and from properties abutting highway facilities. These regulations are categorized as Full Control of Access, Partial Control of Access, Access Management, and Driveway and Approach regulations.

- **Full Control of Access:** Preference is given to through traffic by providing access connections only with selected public roads and by prohibiting crossings at-grade and direct private driveway connections.
- **Partial Control of Access:** Preference is given to through traffic to a degree that, in addition to access connections with selected public roads, there may be some crossing at-grade and some private driveway connections. Full or Partial Control of Access is generally accomplished by legally obtaining access from the abutting property owners (usually at the time of purchase of right-of-way) or by the use of frontage roads.
- **Access Management:** Involves providing (or managing) access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed. Access Management views the highway and its surrounding activities as part of a single “system.” Individual parts of the “system” include the activity center and its circulation systems, access to and from the center, the availability of public transportation, and the roads serving the center. All parts are important and interact with each other. The goal is to coordinate the planning and design of each center to preserve the capacity of the overall system, and to allow efficient access to and from the activities.
- **Driveway and Approach Regulations:** These may be applied even though no control of access is obtained. Each abutting property is permitted access to the street or highway; however, the location, number, and geometrics of the access points may be governed by the regulations.

The principal advantages of control of access are the preservation or upgrading of service and safety of the roadway facility/facilities.

Accessibility - The opportunity to easily reach a given destination within a certain time frame without being impeded by physical or economic barriers.

Alternative Modes of Transportation - Forms of transportation that provide transportation alternatives to the use of single occupant automobiles. Examples include: rail, transit, carpools, bicycles and walking.

Alternative Work Hours - Work policies such as flex-time and staggered work hours and compressed work weeks that allow employees to meet transit, carpool, or vanpool schedules or to avoid commuting during peak hours traffic periods.

Americans with Disabilities Act (ADA) - Federal civil rights legislation for persons with disabilities, signed into law in 1990, that prohibits discrimination specifically in the areas of employment, public accommodation, public services, telecommunications and transportation. Transportation requirements include the provision of "comparable paratransit service" that is equivalent to general public fixed route service for persons who are unable to use regular bus service due to a disability.

Arterial (Principal): Roadways in urbanized areas which serve the major centers of activity, the highest traffic volume corridors, the longest trip desires, and a high proportion of the total urban area travel (-- even though it may only constitute a relatively small percentage of the total roadway network).

- Provides significant intra-area travel, for example:
 - Between central business districts
 - Outlying residential areas
 - Between major inner-city communities
 - Between major suburban centers
 - Intra-urban and intercity bus routes
- Because of the nature of the travel served by the major arterial system, almost all are fully and partially controlled access facilities.
- For major arterials, service to abutting land is subordinate to travel service to major traffic movements.

Arterial (Minor): Interconnects with and augments the principal arterial system.

- Accommodates trips of moderate length at a somewhat lower level of travel mobility than major arterials.
- Distributes travel to geographic areas smaller than those identified with the higher system.
- Places more emphasis on land access than the higher system does and offers lower traffic mobility.
- May carry local bus routes and provide intracommunity continuity. Ideally, does not penetrate identifiable neighborhoods.

Average Daily Traffic (ADT) - The average number of vehicles passing a specified point in a typical 24-hour time frame. A measure of traffic volume.

Balanced Transportation System - A system that provides a range of transportation options and takes advantage of the inherent efficiencies of each mode.

Bike Commuters - Bicycle commuters are those cyclists who utilize a bicycle as a primary means of transportation. This user requires convenient and direct routes and as a daily user is most observant of any maintenance problems within the system.

Bike Lane - In this case a portion of the roadway is set aside for exclusive use by cyclists. Since this approach intermingles the bicyclist with motor vehicle traffic, the lanes must be clearly marked on the pavement and with adequate roadside signage.

Bike Path - A bike path is physically separated from the roadway either by location or barriers. It may lie within the roadway right of way or have its own right of way. Typically they are used to serve two way bicycle traffic. Of the four major types of the bicycle transportation facilities, this is usually the most expensive option.

Capacity - The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions; usually expressed as vehicles per hour or persons per hour.

Capital Improvement Program (CIP) - A plan for future capital infrastructure and program expenditures which identifies each capital project, its anticipated start and completion, and allocates existing funds and known revenue sources for a given period of time.

Collector: Provides both land access service and traffic circulation within residential neighborhoods and commercial and industrial areas.

- Differs from Arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to their ultimate destination.
- Conversely, they collect traffic from the local streets in neighborhoods and channel it into the arterial system.

Comprehensive Plan - An official document adopted by a local government in which are set forth the general, long-range policies on how the community's future development should occur. A local comprehensive plan must be in compliance with state land use planning goals.

Congestion - A condition under which the number of vehicles using a facility is great enough to cause reduced speeds and increased travel times. Congestion is measured as the percent of capacity that is being used.

Low Congestion	= less than 71 % of capacity
Moderate Congestion	= between 71% and 86% of capacity
High Congestion	= greater than 86% of capacity

Connectivity - A term used two ways in transportation planning.

- One definition describes the qualities of easy access and appropriate connections between all parts of the transportation system, providing for ease of transfer between different modes of travel, such as rail to bus or bicycle to walking.
- A second definition refers to the connections between streets and paths. Minor collectors and local streets should connect to surrounding streets to permit convenient movement of traffic between residential neighborhoods and to facilitate emergency access and evacuation. Connectivity provides shorter, direct routes to local destinations; and offers more route options thereby relieving congestion on any single street.

Constant Dollars - Often used for large, long term projects, such as transportation or infrastructure. Refers to a method of comparing costs over time, relative to the value of a chosen base year. Using constant dollars controls for the effects of inflation, so as to remove the distortion in value caused by inflation. For example, an economic analysis of a project's costs over a 10 year period could be in "1992 dollars."

Cul-de-sac - A local street, usually only a few hundred feet in length and closed at one end, designed to serve the interior of a subdivision or large tract of land.

Design Standards - Those conditions that should be met when a new road is constructed, or when a deficient section is improved, including all relevant geometric and structural features required to provide some desired level of service over the life of the project - generally 20 years beyond project implementation.

Density - The average number of families, persons, or housing units per unit of land; usually density is expressed "per acre."

Development Patterns - The overall development characteristics of an area, such as the built form of a city, town, district or neighborhood. For example, the development pattern in a downtown business district has different qualities and characteristics in terms of land use, architecture, street pattern and density than does an out-lying residential neighborhood.

Discontinuous Street - A street that is disconnected from other parts of the same street by land features, buildings, cross streets, etc. Cul-de-sacs or dead end streets are also discontinuous streets.

Environmental Impact Statement (EIS) - Document that studies all likely impacts that will result from major federally assisted programs. Impacts include those on the natural environment, as well as impacts on the economy and society, and those on the built environment of historical and aesthetic significance.

Environmental Protection Agency - The federal agency charged with protecting the environment. EPA is the source agency of air quality control regulations affecting transportation.

Express Bus Service - Bus services with limited stops, primarily at transfer points and activity centers, and higher average speeds. Often provided only during peak periods, and using freeways and HOV facilities where available.

Floor Area Ratio (FAR) - A ratio comparing the amount of floor space to the total land area of a development site. Specified ratios are often required for commercial and industrial development projects, and are used in urban zoning ordinances to regulate the dimensions of multistory buildings.

Frequency of Service - The number of transit vehicles in a given time period passing by any given point on a route.

Goal 12 - One of 19 statewide planning standards that makeup the state land use planning program. Goal 12 relates to transportation, and reads: "To provide and encourage a safe, convenient and economic transportation system." See Transportation Planning Rule.

Goals - A desired result or purpose. In planning, a goal is a broad statement of philosophy that describes the hopes of the people of the community for the future of the community. A goal may never be completely attainable but it is used as a point to strive for.

Group Bus Pass Programs - Programs designed for large groups or organizations to allow bulk purchases of transit passes for all members of the group at a significant cost savings.

Guaranteed Ride Home - Program to guarantee that an alternative modes employee will be provided a ride home in an emergency.

High Occupancy Vehicle (HOV) - A vehicle carrying more than one person, such as a carpool, vanpool or bus.

High Occupancy Vehicle (HOV) Lane - A lane(s) on a street or highway reserved primarily for the use of high occupancy vehicles (HOVs), either all day or during specified periods (e.g. during rush hours).

Household Characteristics - Used in the statistical study of human populations. Includes a variety of household attributes, such as number of family members, age, income, number of vehicles, and method of travel to work. The U. S. Census gathers household characteristics of the U S. population.

Impervious Surface - Surfaces which prohibit water from soaking into the ground. Concrete, asphalt, and rooftops are the most common urban impervious surfaces.

Infill Development - Development consisting of either (1) construction on one or more lots in an area which is mostly developed, or (2) new construction between two existing structures.

Infrastructure - The system of essential public services, utilities, and public and community facilities, e.g. water, sewerage, power, roads, schools, health facilities, necessary for the functioning of urban development.

In-migration - The number of persons moving into a geographic area within a given period of time. A component of an area's total population growth.

Interchange - A grade separated system of interconnecting roadways that provides for the movement of traffic between two or more roadways or highways on different levels.

Intermodal - Connecting individual modes of transportation and/or accommodating transfers between such modes.

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 - The 1991 federal transportation funding legislation that provides for a new direction in transportation planning, with emphasis on protecting the environment and reducing congestion, relying on the most efficient transportation mode and providing increased flexibility to state and local governments on the use of federal funds.

Intersection - The general area where two or more highways join or cross, including the roadway and roadside facilities for traffic movements within it.

Interstate Highway System - That system of highways which connects the principal metropolitan areas, cities, and industrial centers of the United States, as well as routes of continental importance in Canada and Mexico.

Land Conservation and Development Commission (LCDC) - A seventeen member commission established by Senate Bill 100 in 1973 to develop and administer Oregon's statewide planning goals.

Land Use - The way specific portions of land or the structures on them are used; for example commercial, residential, retail, industrial, and open space.

Land Use Decision - A final decision or determination made by a local government or special district that concerns the adoption, amendment or application of: the goals, a comprehensive plan provision, a land use regulation, or a new land use regulation.

Land Use Board of Appeals (LUBA) - A board established by the state legislature in 1979 to hear and decide on contested land-use cases.

Level Of Importance (LOI) - State highway facilities are divided into four main Levels of Importance. This categorization system provides overall direction for managing the system and provides a basis for developing funding strategies for improvements. Each LOI is described in terms of its primary and secondary functions, key characteristics, and objectives for managing the operations of that class of highway.

CLASS (LOI): PRIMARY FUNCTION

**SECONDARY
FUNCTION**

**Interstate
Highways**

Provide connections & links to major cities, regions of the state & other states. Connections are primarily with roadways that serve areas of regional significance or scope.

Provide connections & links for regional trips within metropolitan areas.

**Statewide
Highways**

Provide connections & links to larger urban areas, ports and major recreation areas that are not directly served by interstate highways. Provide links to the interstate system and alternate links to the other states.

Provide connections & links for intra-urban and intra-regional trips.

**Regional
Highways**

Provide connections & links to areas within regions of the state, between small urbanized areas and larger population centers, and to higher level facilities.

To serve land uses in the vicinity of higher level highways.

District Highways To serve local traffic and land access. Similar in function to county roads and city streets.

Level of Service - A measure of how well the transportation facility (street, intersection, sidewalk, bikeway, etc.) provides service. More congestion means a lower level of service. Congestion is measured as the percent of capacity that is being used.

- A** - Free flow conditions: 32% of capacity
- B** - Reasonably free flow conditions: 51% of capacity
- C** - Operation stable: 71 % of capacity
- D** - Lower speed range of stable flow: 86% of capacity
- E** - Unstable flow: 100% of capacity
- F** - Forced flow, stop and go operation: +100% of capacity

Light Rail - A type of electric transit vehicle railway with a "light volume" traffic capacity as opposed to "heavy rail." Light rail may be on exclusive or shared rights-of-way, high or low platform loading, multi-car trains or single cars, and be automated or manually operated. In generic usage light rail includes "streetcars," "trolley cars," and "tramways"; in specific, light rail refers to very modern and more sophisticated development of these older rail modes.

Local Street - Comprises all streets that are not collectors or arterials. It serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes.

Local Street System - Comprises all facilities not in one of the higher order systems.

- Permits direct access to abutting properties and connections to the higher order systems.
- It offers the lowest level of mobility and usually contains no bus routes.

National Highway System (NHS): A classification of roads authorized by ISTEA comprised of Interstate Highways and roads designated as important for interstate travel, national defense, intermodal connections, and international commerce. Federal funds are designated for projects on the NHS system. Highway 126 is part of the NHS.

Mixed Use - A development having a mixture of uses which may include office space, commercial activity, residential uses, parks and public places, and supporting public facilities and services. The development is designed so that the need to travel from one activity to another is minimized.

Mobility - Being able to move easily from place to place.

Modal Split (or Mode Share) - The proportion of total persons using a particular mode of travel.

Mode - A method of travel, such as automobile, transit, pedestrian, bicycle, or paratransit.

Multimodal - Involving several types of transportation, such as a trip using both rail and bus.

Non-Point Sources - Causes of water pollution that are not associated with point sources. Non-point sources include agricultural fertilizer or pesticide runoff, and sediment runoff from construction. Non-point sources of pollution may enter a sewer system and become a point source, such as urban runoff.

Objective - An attainable target that the community attempts to reach in striving to meet a goal. An objective may also be considered as an intermediate point that will help fulfill the overall goal.

Oregon Transportation Plan (OTP) - The comprehensive, long-range plan for a multimodal transportation system for the state which encompasses economic efficiency, orderly economic development, safety and environmental quality.

Paratransit - Alternative known as "special or specialized" transportation which often includes flexibly-scheduled and routed transportation services that use low capacity vehicles, such as vans, to operate within normal urban transit corridors or rural areas. Services usually cater to the needs of persons whom standard mass transit services would serve with difficulty, or not at all. Common patrons are the elderly and persons with disabilities.

Park-and-ride - An access mode to transit and other HOV modes in which patrons drive private automobiles or ride bicycles to a transit station, stop, or carpool/vanpool waiting area and park the vehicle in the area provided for that purpose (park-and-ride lots, park-and-pool lots, commuter parking lots, bicycle rack or locker).

Pedestrian Pathway - Pathway designed for pedestrian travel.

Policy - Statement adopted as part of the Plan to provide a specific course of action moving the community towards attainment of its goals. Due to budget constraints and other activities, all policies cannot be implemented at the same time. Generally, those with metropolitan-wide implications should receive priority consideration.

Preferential Parking - Parking for HOV's such as vanpools or carpools. Located closer to destination, workplace or shopping mall than spaces provided for SOVs.

Public Facility Plan - Required by state law for any city with an urban growth boundary encompassing a population greater than 2,500. A plan for the sewer, water, and transportation

facilities needed to serve such an urbanized area.

Retrofit - To change or upgrade an existing structure or system to meet new needs or requirements. For example, structurally strengthening an existing bridge, or upgrading a home's electrical and plumbing system to accommodate a solar water heater.

Ridesharing - Sharing of one vehicle by two or more commuters. While the concept of ridesharing applies primarily to carpools and vanpools, it is sometimes applied to transit as well. Commuters are matched with others having similar commute trip origins, destinations, and schedules.

Right-of-Way - Public space legally established for the use of pedestrians, vehicles or utilities. Right-of-way typically includes the street, sidewalk and buffer strip areas.

Shared Roadway - This type of facility requires the bicyclist to share the roadway with vehicular traffic. In most cases, these facilities are signed as bicycle routes. This type of facility does not include separate lane marking. Shared roadways are typically utilized in low traffic volume and slow traffic situations.

Shoulder Roadway - This type of facility utilizes existing road shoulder space to provide a good area where bicyclists can ride without conflicting with vehicle traffic. These facilities lend themselves well to bicycle traffic along rural highways with adequate shoulder space. When bicycle traffic is significant, these facilities are signed as bicycle routes.

Sight Distance - The length of roadway ahead visible to the driver. The minimum sight distance available on a roadway should be sufficiently long enough to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path.

Single-Occupant Vehicle (SOV) - A vehicle carrying only one person.

Site Design - The aspects of overall design relating to the form and function of a specific site. Site design deals with the configuration of elements on a particular site, usually for a specific project or purpose. These would include grading plans, building siting, and landscape planting plans.

Statewide Transportation Improvement Plan (STIP) - The STIP outlines the statewide construction project schedule for the Oregon Department of Transportation (ODOT) and Metropolitan Planning Organizations. The STIP is not a planning document. It is a project prioritization and scheduling document.

Stormwater (Urban Runoff) - Rain which travels over land surfaces and drains into the street gutters or storm sewer pipes and is discharged into a ditch, channel, stream or river. As stormwater travels over the land, it accumulates pollutants from roofs, yards, driveways, streets and industrial and commercial land uses.

Strip Commercial Development - A linear pattern of commercial development along a major street or highway, usually configured for the convenience of automobile travel.

Subdivision Street Pattern - Typically refers to a limited access, usually curvilinear street pattern, with a relatively high number of cul-de-sacs, designed to serve a low-density residential subdivision development. Other than at limited access points, this type of street pattern usually does not connect with other adjacent subdivision developments or to existing street patterns.

Telecommuting - A method of either working at home or at an off-site work station with computer facilities that link to the work site.

Traffic Calming - An integrated traffic planning approach which seeks to maximize mobility while creating a more livable city by reducing the undesirable side effects of that mobility.

Traffic Flow Improvements - Projects that are designed to enhance or improve the movement of vehicles on existing facilities such as freeways or streets. Some examples include ramp metering and signal timing improvements.

Transit Amenities - Items that support buses and bus riders. They include items such as bus stops, bus pads, turn-arounds, shelters, and benches.

Transportation Corridor - Major or high volume routes for moving people, goods and services from one point to another. They may serve many transportation modes or be for a single mode such as an air corridor.

Transportation Demand Management (TDM) - "Demand-based" techniques which are designed to change travel behavior in order to improve performance of transportation facilities and to reduce the need for additional road capacity. Methods include the use of alternative modes, ride-sharing and vanpool programs and trip-reduction ordinances.

Transportation Disadvantaged - Persons who must rely on public transit or paratransit services for most of their transportation. Typically refers to individuals without access to personal vehicle.

Transportation Needs - Estimates of the movement of people and goods consistent with an acknowledged comprehensive plan and the requirements of the Transportation Rule. Needs are

typically based on projections of future travel demand resulting from a continuation of current trends as modified by policy objectives, including those expressed in Statewide Planning Goal 12 and the Transportation Rule, especially those for avoiding principal reliance on any one mode of transportation.

Transportation Planning Rule (TPR) - A state planning administrative rule, adopted by the Land Conservation and Development Commission in 1991 and amended in 1995, to implement state land use planning Goal 12, Transportation. The TPR requires metropolitan areas to show measurable progress towards reducing dependence on automobiles.

Transportation System Improvements (TSI) - TSI focuses on the supply side of transportation. TSI strategies include the full range of system improvements from improving the capacity and efficiency of the existing system to the construction or expansion of a new facility. TSI strategies are not limited to improvements for the automobile but also incorporates system improvements, expansion, and construction for transit, bicycles, and pedestrians.

Transportation System Management - Techniques for increasing the efficiency, safety, capacity or level of service of the existing transportation system without increasing its size. Examples include traffic signal improvements, traffic control devices including installing medians and parking removal, channelization, access management, ramp metering, and restriping for high occupancy vehicle (HOV) lanes.

Travel Mode - Means of transportation used, such as automobile, bus, bicycle, or by foot.

Trip Purpose - The primary reason for making a trip. In travel demand analysis, trips are often classified according to whether they start or end at the tripmaker's home, and by the primary activity at the tripmaker's destination. For example, the typical commute trip is a home-based work trip. A typical shopping trip is either a home-based non-work trip, or a non-home-based non-work trip.

Trip Reduction Ordinances - Regulations which require developers or employers to participate in efforts to reduce automobile demand.

Urban Design - Urban design deals with the forms, functions, materials and activities of cities, and the use and management of urban settlements or their significant parts, such as neighborhoods or districts.

Urban Growth Boundary (UGB) - A site-specific line in the Comprehensive Plan that separates existing and future urban development from rural lands. Urban levels and densities of development, complete with urban levels of services, are planned within the UGB. A

requirement of the state land use planning program.

Urban Facilities and Services - Those public facilities and services important to urban development. They are primarily planned for by local government and are provided within the current urban service area.

User Group - People with common characteristics in terms of how they use the transportation system. These characteristics include attitudes toward transportation choice, trip making patterns, and other shared travel behaviors. For example, retired persons, university students, and working parents can be considered different user groups.

Vanpool - Commuting in a seven to 15 passenger van, with driving undertaken by commuters. Some portion of the van's ownership and operating cost is usually paid for by the riders on a monthly basis. The van may be privately owned, employer-sponsored with the company owning and maintaining the vehicle, or it may be provided through a private company that leases vehicles. Fares may be charged, or the cost may be divided as agreed by the passengers.

Vehicle Capacity - The number of motor vehicles a highway or road is designed to carry over a given period of time at a given level-of-service.

Vehicle Miles of Travel (VMT) - The sum of distances traveled by all motor vehicles in a specified region. A requirement of the state Transportation Planning Rule is reducing vehicle miles traveled per capita.

Wetlands - Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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Appendix H

Compatibility With State Transportation Planning Rule and Other Plans

<u>TPR Requirements/ Recommendations</u>	<u>Junction City Transportation System Plan</u>
Public and Interagency Involvement	
<ul style="list-style-type: none"> • Establish Advisory Committees 	An 8-member Transportation Citizens Advisory Committee (CAC) was established to provide project guidance. A list of the CAC membership is included on the inside cover of the TSP.
<ul style="list-style-type: none"> • Develop Information Material 	Materials including reports, tables, and maps were prepared for public and agency review of the various TSP components. The Tri-County News periodically wrote stories on the plan. Informational packets were also prepared and made available to the general public attending meetings.
<ul style="list-style-type: none"> • Schedule Meetings and Public Hearings 	The CAC met monthly from June 1996 through November 1997. Following that, the CAC met two more times to review work products and provide input on public comments. Two public open houses and a works session with the Junction City Planning Commission were held to allow the public to review various aspects of the plan.
<ul style="list-style-type: none"> • Develop Other Methods to Involve the Community 	Staff made two presentations to the local Chamber of Commerce. The open houses all included opportunities for the public to participate verbally and in writing. A community survey was taken to get the citizens' opinions on transportation issues.

<ul style="list-style-type: none"> • Coordinate the Plan With Other Agencies 	<p>The TSP was coordinated closely with the City of Junction City, Oregon Department of Transportation (ODOT), and Lane County. Members of these organizations frequently attended most CAC meetings. The plan was also sent to the Department of Conservation and Development and Lane Transit District, who provided written comments.</p>
<p>Review Existing Plans, Policies, and Standards</p>	
<ul style="list-style-type: none"> • Review and Evaluate Existing Comprehensive Plan and state and federal plans 	<p>The Junction City Comprehensive Plan was reviewed and evaluated as part of the TSP Development. The following other plans were reviewed: The Oregon Transportation Plan, Oregon Highway Plan, Oregon Bicycle and Pedestrian Plan, Oregon Rail Passenger Policy and Plan and Oregon Rail Freight Plan, and American with Disabilities Act</p>
<ul style="list-style-type: none"> • Analyze Existing Land Uses and Vacant Lands 	<p>Existing land uses and vacant lands within the TSP study area were updated. Maps and associated data were produced and analyzed by Transportation Analysis Zone.</p>
<ul style="list-style-type: none"> • Review Population and Employment Forecasts 	<p>Population and employment data were updated and new forecasts developed. Housing by development type and employment by sector were allocated to vacant lands. These data were used in the Junction City TSP modeling effort.</p>
<ul style="list-style-type: none"> • Review Existing Ordinances and Zoning, Subdivision, and Engineering Standards 	<p>The Junction City Zoning Ordinance and Subdivision Ordinances were reviewed for consistency with the TPR. Street standards and other engineering standards were analyzed for consistency with new TSP policies.</p>

<ul style="list-style-type: none"> Review Significant Transportation Studies 	<p>No significant transportation studies have been conducted in the Junction City area.</p>
<ul style="list-style-type: none"> Review Existing Capital Improvements and/or Public/Facilities Plans 	<p>The Junction City Capital Improvements Plan is consistent with the TSP.</p>

<p>Inventory Existing Transportation System</p>	
<ul style="list-style-type: none"> Street system (number of lanes, lane widths, traffic volumes, level of service, traffic signal location and jurisdiction, pavement conditions, functional classification and jurisdiction, truck routes, access points, and safety issues.) 	<p>A complete inventory of Junction City’s existing street network is included in Chapter Three.</p>
<ul style="list-style-type: none"> Bicycle Ways (type, location, width, condition, ownership/jurisdiction). 	<p>Chapter Three of the TSP describes the existing bicycle system.</p>
<ul style="list-style-type: none"> Pedestrian Ways (location, width, condition, ownership/jurisdiction). 	<p>Chapter Three describes the existing pedestrian system.</p>
<ul style="list-style-type: none"> Public Transportation Services (transit, intercity bus, passenger rail, special transit services). 	<p>A summary of existing public transportation service is provided in Chapter Three.</p>
<ul style="list-style-type: none"> Air Transportation 	<p>There are not airports within the city.</p>
<ul style="list-style-type: none"> Freight Rail Transportation 	<p>A summary of freight rail transportation services is provided in Chapter Three.</p>
<ul style="list-style-type: none"> Water Transportation 	<p>There are no navigable waterways in the planning area.</p>
<ul style="list-style-type: none"> Pipeline Transportation 	<p>A summary of pipeline transportation services is provided in Chapter Three.</p>

<ul style="list-style-type: none"> • Environmental Constraints 	<p>A discussion of natural features including slope, soils, surface water drainage, and wetlands is included in Chapter Three. A discussion of cultural features including parks and open space, schools, and historical features is also included in Chapter Three.</p>
<ul style="list-style-type: none"> • Existing Population and Employment 	<p>Existing and projected population and employment is included in Appendix B of the TSP.</p>

<p>Determine Transportation Needs</p>	
<ul style="list-style-type: none"> • Population and Employment Forecasts 	<p>Population and employment forecasts are included in Appendix B. Junction City was divided into 18 transportation analysis zones (TAZ). Housing and employment data were allocated by TAZ and projected to the year 2015. An EMME/2 model was developed to forecast future vehicle trips. The results of the model are included in Chapter Three and Appendix A.</p>
<ul style="list-style-type: none"> • Determine Transportation Capacity Needs 	<p>A Level 2 analysis was conducted to project traffic volumes to the year 2015. The model was calibrated using existing traffic counts. The model projected future trip rates and origin and destination information. The model also estimated level of service, P.M. peak hour traffic volume, and P.M. peak hour congestion. This information is included in Chapter Three and Appendices A and C.</p>

<ul style="list-style-type: none"> • Other Roadway Needs (safety, bridges, reconstruction, operation/maintenance) 	<p>The TSP includes a policy to pursue, with ODOT, a refinement study of Hwy. 99 within the downtown area (between 1st and 18th Avenues. Other roadway needs are described in the Chapter Three and Appendix C of the TSP.</p>
<ul style="list-style-type: none"> • Freight Transportation Needs 	<p>The proposed TSP will provide for adequate freight movement by rail and highway.</p>
<ul style="list-style-type: none"> • Public Transportation Needs (special transportation needs, general public transit needs) 	<p>The proposed TSP identifies public transportation system and needs in Chapter Three.</p>
<ul style="list-style-type: none"> • Bikeway and Pedestrian Needs 	<p>Bikeway and pedestrian system needs are described in Chapter Three</p>

<p>Develop and Evaluate Alternatives</p>	
<ul style="list-style-type: none"> • Evaluate and Develop Transportation Goals 	<p>Goals were established as part of the TSP development contained in Chapter 2.</p>
<ul style="list-style-type: none"> • Establish Evaluation Criteria 	<p>The established goals formed the basis for evaluating projects. These are present in Chapter 2.</p>
<ul style="list-style-type: none"> • Develop and Evaluate Alternatives (no-build system, transportation system management, transportation demand management, transit feasibility, improvements to roadway system, land use alternatives, and combination alternatives). 	<p>Chapter 3, Modal Plans, and Appendix C, Needs Analysis, generally identified the need for future projects.</p>

<ul style="list-style-type: none"> Select Recommended Alternative 	<p>The preferred plan alternative is contained in Chapter 3. The CAC reviewed and prioritized projects into short, medium, and long-range priorities. Project lists were also reviewed by the public at open houses.</p>
<p>Produce a Transportation System Plan</p>	
<ul style="list-style-type: none"> Transportation Goals, Objectives, and Policies 	<p>Transportation goals and policies are contained Chapter 2.</p>
<ul style="list-style-type: none"> Street Plan Element (function street classification and design standards, proposed facility improvements, access management plan, truck plan safety improvements) 	<p>All of these elements are contained in Chapter 3 of the TSP.</p>
<ul style="list-style-type: none"> Public Transportation Element 	<p>A transit plan is contained in Chapter 3</p>
<ul style="list-style-type: none"> Bikeway Element 	<p>The bike plan is contained in Chapter 3.</p>
<ul style="list-style-type: none"> Pedestrian System Element 	<p>The pedestrian system plan is contained in Chapter 3 of the plan.</p>
<ul style="list-style-type: none"> Air, Rail, Water, and Pipeline 	<p>The rail and pipeline plans are contained in Chapter 3. There are no air or water systems in the city.</p>
<p>Plan Review and Coordination</p>	
<ul style="list-style-type: none"> Consistent with ODOT, Lane County, and other applicable plans 	<p>Representatives from ODOT and Lane County attended most CAC meetings. In addition, the draft plan was reviewed by the Department of Land Conservation and Development and Lane Transit District.</p>
<p>Adoption</p>	

<ul style="list-style-type: none"> • Is it Adopted? 	<p>A joint public hearing of the Junction City Planning Commission, Lane County Planning Commission, and Lane County Roads Advisory Committee was held on _____. The Junction City City Council and Lane County Board of Commissioners held a public hearing on _____. Adoption of the TSP is pending.</p>
<p>Implementation</p>	
<ul style="list-style-type: none"> • Ordinances (facilities, services, and improvements; land use or subdivision regulations) 	<p>Implementing Ordinances were developed as part of the TSP.</p>
<ul style="list-style-type: none"> • Transportation Financing/Capital Improvements Program 	<p>Capital projects are contained in Chapter 3 and the financing Plan in contained in Chapter 4 of the TSP.</p>

Junction City Comprehensive Plan

The Junction City Transportation System Plan (TSP) is consistent with the Junction City Comprehensive Plan. The TSP is adopted as an amendment to the Comprehensive Plan and the TSP goals and policies replace transportation-related goals and policies contained in the Comprehensive Plan. The remainder of the TSP, including appendices, is adopted as background information to the Comprehensive Plan. The Junction City Comprehensive Plan Diagram will also be amended to reflect any amendments contained in the TSP.