CITY OF COLUMBIA CITY

TRANSPORTATION SYSTEM PLAN

ORDINANCE NO. 529

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1.0. OVERVIEW OF TRANSPORTATION SYSTEM PLANNING

1.1 Introduction

The purpose of this study is to develop a comprehensive multi-modal transportation system plan (TSP) that meets future transportation needs for the City of Columbia City. The TSP is intended to serve as a guide for the management of existing transportation facilities and for the design and implementation of future transportation facilities.

1.2 Transportation System Planning Requirements

The Columbia City Transportation System Plan is part of an ongoing statewide transportation planning process designed to meet the requirements of the federal Intermodal Surface Transportation Efficiency Act (ISTEA), Statewide Planning Goal 12 and its implementing policy, the Transportation Planning Rule (TPR). While each of these requirements identifies different policy initiatives, all three share several common themes: 1) a requirement that transportation plans provide a balanced transportation system providing transportation options; 2) that transportation plans reduce reliance upon the single-occupant automobile and increase the opportunity for modal choice; and 3) that transportation plans be coordinated with land use plans and address the environmental, social, economic, and energy consequences of proposed actions. Each of these requirements regarding the Columbia City Transportation System Plan is summarized below.

Intermodal Surface Transportation Efficiency Act

The Intermodal Surface Transportation Efficiency Act (ISTEA) specifies requirements for statewide and metropolitan long-range planning. ISTEA does not require areas with less than 50,000 population, such as Columbia City, to conduct transportation plans. The legislation is; however, relevant to the Columbia City TSP as it redefines the manner in which federal aid is provided for highway and transit programs.

Goal 12 - Transportation

In the mid-1970s, Oregon adopted 19 Statewide Planning Goals to be implemented in comprehensive plans. The aim of Goal 12 - Transportation is *to provide and encourage a safe, convenient and economic transportation system.*

Goal 12 required all communities, regions, and metropolitan areas to include the following transportation element in their comprehensive plans.

> 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 economy; and (9) conform with local and regional comprehensive land use plans.

Transportation Planning Rule

With concurrence of the Oregon Department of Transportation (ODOT), the Land Conservation and Development Commission (LCDC) adopted the Transportation Planning Rule (TPR), OAR 660 Division 12, in April 1991, revised April 1995, to guide regional and local transportation planning in carrying out LCDC Goal 12 - Transportation.

Through measures designed to reduce reliance on the automobile, the TPR is intended to assure that the planned transportation system supports a pattern of travel and land use in urban areas which will avoid the air pollution, traffic, and livability problems faced by other areas of the country. The rule requires the Oregon Department of Transportation (ODOT) to identify a system of transportation facilities and services adequate to meet identified State transportation planning needs and prepare a State transportation systems plan. The Oregon Transportation Plan is intended to meet the requirement for the State TSP.

The rule also requires metropolitan planning organizations (MPOs) and counties to prepare regional TSPs consistent with the adopted state TSP; cities and counties must prepare local TSPs consistent with both regional and state TSPs. The planning process is intended to assure that comprehensive plans provide for a network of transportation improvements sufficient to meet local, regional, and state transportation needs.

1.3 System Planning Description and Purpose

A transportation system plan (TSP) is a long-range (20-year) plan for managing transportation systems that move people, goods, and services within a defined geographic area. The purpose of the TSP is to develop a coordinated network of transportation facilities adequate to serve state, regional, and local transportation needs. TSPs are currently being developed for all Oregon counties and urban areas with a population greater than 2,500.

Under the Transportation Planning Rule (TPR), transportation planning is divided into two phases: transportation system planning and transportation project development. Transportation system planning establishes land use controls and a network of facilities and services to meet overall transportation needs. Transportation project development implements the TSP by determining the precise location, alignment, and preliminary design of improvements included in the TSP.

The local TSP is part of a statewide integrated planning approach designed to implement Goal 12 and the TPR. The Oregon Transportation Plan (the State TSP) identifies goals and policies and a system plan for the entire state of Oregon. Regional and local TSPs must be consistent with Oregon Transportation Plan and implement its policies at the local level. Figure 1.1 illustrates the integrated transportation planning process.

1.4 Planning Requirements for the City of Columbia City

The Transportation Planning Rule establishes a set of planning requirements and criteria for jurisdictions depending on their population, transportation needs, and location. Generally, all jurisdictions in the State must prepare a transportation system plan; however, larger communities have added requirements regarding the preparation and coordination of their TSP.

Because the City of Columbia City has a population of less than 2,500, the City is eligible to be exempt from preparing a transportation system plan under the Transportation Planning Rule. However, since Columbia City has been experiencing significant levels of growth over the past several years, the Oregon Department of Transportation and the City decided a TSP was needed to help prepare the City for the future.

Under the Transportation Planning Rule, the City of Columbia City must prepare a local TSP that is consistent with county, regional, and statewide plans and includes the following elements:

- Identification of transportation needs, including:
  - ⇒ All transportation needs within the Urban Growth Boundary
  - ⇒ Needs of the transportation disadvantaged
  - ⇒ Needs for movement of goods and services to support industrial and commercial development
- A road plan for a network of arterials and collectors, consistent with state and regional TSPs.
- A public transportation plan that:
  - ⇒ Describes public transportation services for the transportation disadvantaged and identifies service inadequacies.
  - ⇒ Describes intercity bus and passenger rail service and identifies the location of terminals.
- A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area.
- An air, rail, water, and pipeline transportation plan which identifies where public use airports, mainline and branch railroads and railroad facilities, port facilities, and major pipelines, and terminals are located or planned within the planning area.
- Policies and land use regulations for implementing the TSP.

1.5 TSP Study and Plan Organization

The development of the Columbia City TSP began with the establishment of the TSP goals and objectives and development of the evaluation criteria, as outlined and described in Section 2. Goals and objectives were developed with the input from the public at the first open house and Columbia City staff. The study team then developed the evaluation criteria based on these goals and objectives, and they were reviewed and approved by Columbia City staff members. The goals and objectives then guided the development of the transportation system alternatives.

In Section 3, the existing and future conditions for Columbia City are presented. These include land use, population and employment, and the natural and cultural environments. The review of existing plans, policies, ordinances, and standards are also presented.

An inventory of the existing transportation system was conducted to identify physical, operational, traffic safety, and travel characteristics of roadways within the Columbia City Urban Growth Boundary, as outlined in Section 4. Transportation issues were identified by the study team and then verified by the public through stakeholder interviews and at the first open house.

Section 5 presents the future conditions for the Columbia City area. Included are discussions of the forecast demographic conditions, future transportation conditions, and an assessment of the future transportation needs for the community.

The next step was the development of the transportation system alternatives, which are described in Section 6. The alternatives were analyzed using the QRS II travel demand model for Columbia

City developed as part of the TSP process. This section also includes the evaluation of the alternatives.

The Draft Transportation System Plan is presented in Section 7. The preferred alternative is described, and the recommended street system plan, bicycle plan, pedestrian plan, public transportation plan, the air/rail/water/pipeline plan, and access management plans are included.

Section 8 presents the TSP implementation plan. Included are the prioritization of projects and recommended land use ordinance modifications. The purpose of this section is to present the means of achieving the recommended transportation system plan.

Section 9 concludes the study by listing the requirements and recommendations of the Oregon TPR (OAR 660 Division 12) and outlining how the Columbia City Transportation System Plan provides the analysis and findings needed for the City to comply with the Transportation Planning Rule.

2.0 GOALS AND OBJECTIVES

2.1 Introduction

The intent of this Transportation System Plan is to serve as a guide for developing Columbia City's future transportation system. One of the primary components of the plan is the goals and objectives, which reflect the current vision of the community and address the requirements of statewide transportation policies. The goals and objectives need to be consistent with Columbia City's Comprehensive Plan and the general viewpoints of the City's residents and take into consideration the requirements of the Oregon Transportation Plan and Goal 12 - Transportation Planning Rule.

The goals give overall guidance to the strategies and specific polices that make up the Transportation System Plan. The goals are general statements of purpose for how the TSP relates to each element of the City's setting. The established goals relate to general transportation issues, transportation issues concerning the character of the community, and resource preservation. Each goal has specific objectives that identify how each goal is to be carried out.

2.2 Development of the Goals and Objectives

The goals and objectives were based on a variety of sources of information. A comprehensive public involvement program was conducted as well as a review of all relevant regional and statewide transportation plans. In specific, the goals and objectives were developed from the following sources of information:

- The Columbia City Comprehensive Plan
- Oregon Transportation Plan
- Transportation Planning Rule
- Portland - Astoria (U.S. Highway 30) Corridor Plan
- Stakeholder Interviews conducted in May 1996
- Public Open House conducted in May 1996

2.3 Development of the Evaluation Criteria

To determine how successful the alternatives are in meeting the desired goals and objectives, certain evaluation criteria were developed. The evaluation criteria are specific transportation-related indicators designed to measure how well each alternative achieves the stated goals and objectives.

The evaluation criteria for each goal are specific to that goal, as illustrated in Section 2-5. Each alternative was analyzed using the evaluation criteria, and a comparison was then made between the alternatives.

Many evaluation indicators can be quantified with a good degree of precision (i.e., transit travel times or capital cost estimates) while others rely totally on subjective evaluation (i.e., impact on visual quality of areas near a proposed improvement). In selecting a set of evaluation criteria, emphasis was placed on those which could be quantified. Since it was not always possible to use those type of criteria, as in assessing visual and aesthetic impacts, an attempt was made to select measures which can be clearly defined and understood by all involved and which most effectively show differences between alternatives.

Transportation Goal criteria include measures of how easy it will be to travel around the City, how long it will take, and if safety will be maximized with an alternative. Community Goal criteria include

measures of how accessible different locations in the City will be, how available transit will be, and what the land use impacts will be for each alternative. The Resource Goal criteria address environmental impacts.

2.4 Goals and Objectives

Goal: TRANSPORTATION - Develop a transportation plan to manage future transportation needs and prolong the useful life of the existing transportation system.

Objectives:

- Improve safety for all modes, especially along the Columbia River Highway.
- Provide safe, accessible, and connected pedestrian and bicycle facilities including: across and along Highway 30 and other collectors and arterials; to and along the waterfront; within neighborhoods; and to other towns.
- Provide an alternative to Highway 30 for local traffic.
- Provide solutions to reduce conflicts between through and local traffic and improve traffic flow.
- Improve town continuity by providing safe and easy access to and across Highway 30 and railroad crossings for all modes of travel.
- Promote alternative modes of travel (such as bicycle and pedestrian) and connections to these modes to reduce vehicle miles of travel.
- Provide access road on industrial site from Pacific Street to near "E" Street.

Goal: COMMUNITY - Develop a plan for a transportation system that supports the individual character of Columbia City.

Objectives:

- Provide transportation improvements that protect the area's historical character.
- Enhance the visual quality (such as with landscaping) of the transportation system.
- Encourage land-use patterns that reduce vehicle miles of travel.
- Enhance access to community structures (such as schools and community centers)

Goal: RESOURCES - Develop a plan for a transportation system that protects environmental resources and enhances the scenic beauty of the area.

Objectives:

- Minimize adverse impacts to natural environments, including wetlands, estuaries, and other wildlife habitat, especially that of threatened and endangered species.
- Maintain and enhance access to parks and recreational and scenic resources.
- Reduce noise impacts and visual impacts along Higway 30.

2.5 Evaluation Criteria

Goal 1 - Transportation

Mobility

Mobility is a measure of the relative ease with which people and goods can travel to and between different activities. A mobile person is able to get to the places where they live, work, shop, socialize, and play with reasonable travel time and convenience. An adequate transportation system provides this mobility for all members of the community. Therefore, a definition of mobility is dependent on all available modes of transportation, including: automobile, public and private transit, bicycle, and pedestrian.

Measures:

- Average speed by functional roadway class - Model output: mph
- Access to transportation disadvantaged - Qualitative comparison: +/-
- Provide for various transportation system users - Qualitative comparison:+/- (Commercial, commuter, residents, and recreational)

Vehicle Miles of Travel (VMT)

Vehicle miles of travel is the total number of miles that all vehicles have driven on all roadways in a transportation system or for select roadways only. VMT is measured for a specified time period, usually 24 hours. VMT is a measure of both how far people are traveling in their vehicles to their destinations and of how many vehicle trips are being made. VMT is a major component of automobile emissions and is determined in large part by the proximity of activity locations within the community.

Measures:

- Total VMT - Model output: vehicle-miles
- VMT by functional roadway classification - Model output: vehicle-miles by type

Vehicle Hours of Travel (VHT)

Vehicle hours of travel is a measure of the time spent by travelers in their vehicles on the roadway system. Vehicle hours traveled represents the total number of hours spent in vehicles on a specific road or a road network in a given timeframe, usually 24 hours. VHT is comprised of time spent traveling as well as time spent waiting (delay). VHT is directly related to travel speed. As travel speed decreases, the number of hours spent traveling increases.

Measure:

- Total VHT - Model output: vehicle-hours

Level of Service (LOS)

Level of service measures the adequacy of transportation facilities both in terms of physical operations and in terms of driver perception. The purpose of transportation facilities is to move travelers between locations. LOS applies a ranking system to define how well a transportation system is serving its purpose. In general, if travelers are easily able to travel along a roadway facility with little delay and interaction with other vehicles then LOS is "good." If travel is very slow and interaction with other vehicles is high, then LOS is "bad."

Measures:

- Miles in system by LOS by functional classification - Model output: LOS F, E, D, C or better

Maximize System Safety

Vehicle safety is measured in terms of number of accidents, accident rates, and traffic violations. These types of measures can not be made when considering future alternatives. However, qualitative comparisons can be made for transportation alternatives relative to their ability to address safety concerns in specific areas known to have safety problems.

Measures:

- Addresses safety concerns from analysis and public input – Qualitative comparison: +/-

Goal 2 - Community

Accessibility to Different Modes and to Varying Levels of Destinations

This measure is related to the mobility discussion on providing access to various transportation system users. Community residents have a variety of needs and wishes that are satisfied at differing locations. Different travel options should also be available to help limit congestion and to prevent people from being stranded by failure of a certain mode. This measure is a qualitative comparison that describes the ability of a transportation system to provide travelers with a variety of options.

Measures:

- Level of pedestrian, bike, auto & transit access to neighborhoods - Qualitative comparison: +/-
- Level of pedestrian, bike, auto & transit access to community - Qualitative comparison: +/-

Minimization of Land Use Impacts

Transportation system planning and land use planning should be done in complementary fashion. The transportation system must be compatible with and support adopted land uses. Different types of streets and levels of traffic are appropriate for different types of land uses. Streets serving neighborhood and school traffic usually carry lower levels of traffic than streets serving more intense land uses.

Measures:

- Supports land use plans - Qualitative comparison: +/-
- Minimizes Neighborhood traffic infiltration
  Percent VMT on minor collector/local street system - Model output

Availability of Transit

The availability of transit is part of the mobility and accessibility evaluation criteria. The purpose of transit is to provide options for travel to those who cannot, or choose not to, walk, bicycle, or drive a car to their destination. Transit can also be used for special purposes such as shuttles to events,

shuttles between major activity locations, and tourist routes. An evaluation of transit components is a critical part of a complete transportation plan.

Measures:

- Level of community-wide transit service - Qualitative comparison: +/-
- Level of transit service for transportation disadvantaged - Qualitative comparison: +/-
- Level of transit service for tourist destinations - Qualitative comparison: +/-

Goal 3 - Resources

Minimization of Environmental Impacts

Transportation amenities are part of a larger set of community amenities. Transportation system planning should consider the environmental, historical, and cultural aspects of a community that help to make that community a desirable place to live. The goal is to avoid or minimize impacts to these community features.

Measures:

- Minimizes impact on significant natural and cultural features (natural areas, wetlands, historic/cultural resources, schools, parks, and cemeteries) - Qualitative comparison: +/-
- Minimizes visual and aesthetic impacts - Qualitative comparison: +/-

3.0 EXISTING CONDITIONS AND PLANS

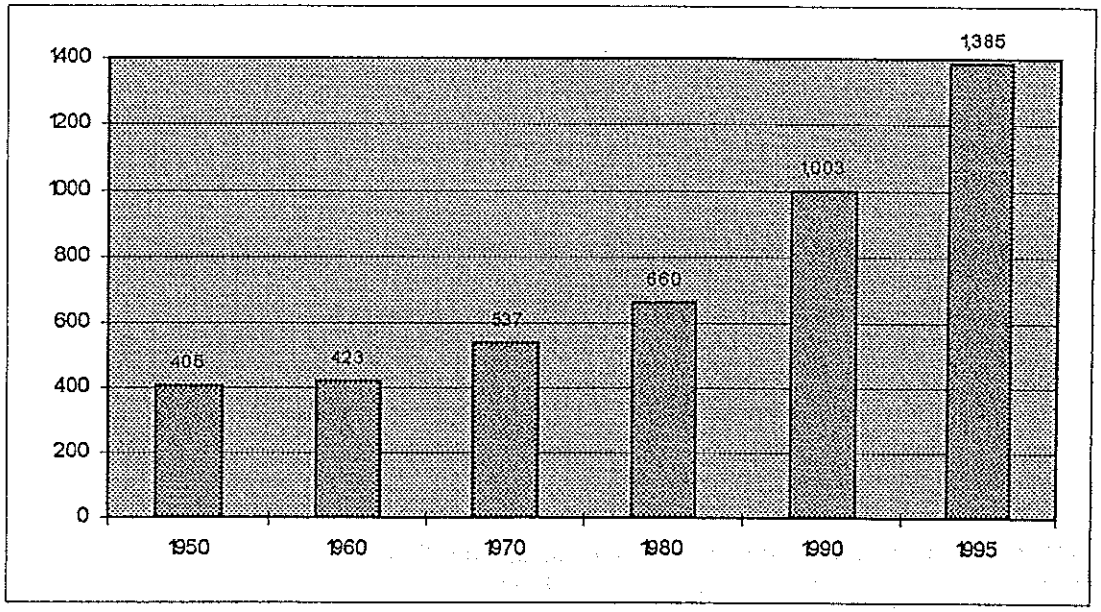
3.1 Introduction

The City of Columbia City is primarily a residential community located approximately 32 miles north of Portland and 2 miles north of neighboring St. Helens. Columbia City is bounded on the east by the Columbia River and on the west by the foothills of the east flank of the Pacific Coast Range Mountains. Its northern boundary is defined by McBride Creek, and its southern boundary edges a boggy, wooded area that has formed a one-half mile buffer between St. Helens and Columbia City.

3.2 Growth, Population, and Employment

Over the last 50 years, Columbia City has experienced two dramatically different rates of growth. Between 1950 and 1980, population in Columbia City grew at a relatively slow rate. During this time, the City increased by an average of only nine persons per year. However, since this period, Columbia City has been experiencing considerable levels of growth. Since 1980, Columbia City's population has more than doubled, increasing from a total 678 in 1980 to an estimated 1,385 in 1995. Figure 3.1 graphically displays Columbia City's population growth between 1950 and 1995.

Figure 3.1
HISTORICAL POPULATION GROWTH - COLUMBIA CITY
1950 - 1980



The first years of significant population growth started occurring during the later half of the 1980s and early 1990s, when Columbia City was growing by a rate of approximately 5 percent per year. However, with the closure of the nearby Trojan Nuclear Plant, population growth slowed during 1991 and 1992. Recently, Columbia City has been experiencing an unprecedented increase in population growth. Since 1993, the City has been increasing its population base by more than 10 percent per year. Table 3.1 displays Columbia City's population growth trends between 1980 and 1995.

Table 3.1
COLUMBIA CITY POPULATION GROWTH
1980 - 1995

Year	Columbia City Population	Average Yearly Population Growth Rate	Columbia Co. Population	Columbia City's Percentage of County Pop.
1980	678		36,646	1.9%
1982	700	1.6%	36,200	1.9%
1984	735	2.5%	36,200	2.0%
1986	795	4.0%	36,100	2.2%
1988	870	4.6%	36,800	2.4%
1990	1,003	7.1%	37,557	2.7%
1991	1,045	4.2%	37,800	2.8%
1992	1,070	2.4%	38,800	2.8%
1993	1,104	3.2%	38,800	2.9%
1994	1,240	10.7%	39,400	3.1%
1995	1,385	11.7%	39,700	3.5%

Sources: Center for Population and Research, School of Urban and Public Affairs, Portland State University.

Population Projections

Columbia City's Comprehensive Plan, adopted in October of 1992, utilizes a year 2010 population projection of 1,542 people. The projected growth assumes the growth rate in the City will continue at a brisk rate until 80 percent of the buildable land in the City is used. After that, the growth rate will slow if more land is not added to the City.

Based on the population projection of 1,542, the City estimated that it needed to plan for an additional 192 housing units (115 single family units, 35 multi-family units, and 42 manufactured housing units). However, since the time of the Comprehensive Plan, Columbia City has experienced a tremendous amount of growth, increasing by an average of over 10 percent per year to an estimated 1,385 in 1995. Also, since 1990 approximately 151 new housing units have been constructed in Columbia City. This is 78 percent of the new 192 housing units needed to the year 2010.

Employment

Columbia City does not support a strong employment base. The City is primarily a residential community, with most residents employed in nearby St. Helens or commuting to metropolitan Portland. The major employer in the City is West Oregon Wood Products, with approximately 35 employees.

3.3 Existing Land Uses

Columbia City is primarily a residential community, with predominantly single-family owner-occupied residential houses. There are two commercially-zoned sites within the City. One site is located at the corner of "I" and Second Streets, and the other site is located at the northwest corner of the Highway 30 and "A" Street intersection. Adjacent to that site is a newly-zoned commercial/recreational site.

Those two commercial sites include a 10,000-square-foot site at Second and "I" Streets, and two acres at Highway 30 and "A" Street. The Port of St. Helens also owns and operates approximately 93 acres located in the northeast portion of the City, north of "E" Street and east of Highway 30, along the Columbia River. This site represents all the industrial land in Columbia City.

There are a variety of public use lands scattered throughout the community of Columbia City. City Hall is located next to the Community Hall at the corner of Second and "I" Streets, and the public works office is located on Second Place between "J" and "K" Streets. Columbia City has one elementary school, located at Second Street between "F" and "H" Streets.

There are two public parks (DAR) in Columbia City. Pixie Park is located on the Columbia River Waterfront at "I" Street, and Ruth Rose Richardson Park is at "I" Street between The Strand and First Street.

3.4 Natural Environment

The State of Oregon requires the City to conserve open space and protect its natural and scenic resources. In order to meet these requirements, the City of Columbia City has inventoried the location, quality, and quantity of the following natural resources:

Open Space - Land needed or desirable for open space is provided for in the County around the City. The Columbia River to the east also provides permanent open space.

Mineral and Aggregate Resources - There are no known mineral or aggregate resources within the City limits.

Energy Sources - There are no known deposits of oil, natural gas, coal, or uranium in the planning area; nor are there hydrological or natural thermal sources.

Fish Habitats - McBride Creek has been identified by the State Fish and Wildlife Department as a Class 1 Stream -- important to Steelhead spawning and rearing. The majority of the stream lies in the County, but the stream does meander through a residential portion of Columbia City. The majority of this habitat is currently unaffected by residential development. The riparian vegetation is a narrow band (25 to 50 feet wide) consisting of willow, cottonwood, Douglas Fir, and cedars. Portions of the stream corridor are steep.

Ecologically and Scientifically Significant Areas - There are none within the planning area.

Outstanding Scenic Views - The Columbia River and the Cascade Mountains are the main scenic views.

Water Area - The east Columbia City boundary extends to the middle portion of the Columbia River and flows the length of the City. There are no wetlands or watersheds within the City limits. The area is partially drained by McBride Creek.

Historic Areas, Sites, and Structures - The Caples House and McVey House are identified as historic structures in Columbia City. The Lewis and Clark Trail has also been recognized in Columbia City.

Cultural Areas - There are no identified cultural areas in the planning area.

Federal and State Scenic Waterways - There are none in the planning area.

3.5 Existing Plans and Policies

One of the objectives of the Oregon's Transportation Planning Rule (TPR) is to provide a transportation plan that is consistent with regional and local policies and standards. To meet this objective, a variety of transportation, land use, and other comprehensive plans were reviewed prior to the preparation of the Transportation System Plan. The following is a summary of relevant plans and policies related to Columbia City's transportation system:

Columbia City Comprehensive Plan (adopted October 1992)

Columbia City's Comprehensive Plan provides overall guidance for the community's land use, economic development, and resource management. The Plan is divided into two main parts: 1) inventory and background data information describing the community's resources and features, and 2) policies which set forth the community's long-range objectives and the policies by which to achieve them. The following is a summary of goals and policies that directly or indirectly have an effect on Columbia City's transportation system:

Transportation

Policies:

1. Inventory streets to establish priorities for upgrading them. Columbia City is presently involved in a program of maintaining existing local streets and upgrading collector streets. In order to ensure the best use of available funds, the Streets Committee will continue to inventory street paving needs on a yearly basis.
2. Overlay presently unpaved local and collector streets either through public funding (where possible) or though the formation of local improvement districts.
3. Minimize or eliminate rail and automobile conflicts.
4. Promote activities furthering traffic and pedestrian safety (such as signaled intersections and crosswalks) especially along the Columbia River Highway.
5. Plan, design, and develop the street system in accordance with the anticipated future land use and activity patterns in the area and the City. Plan to connect new streets to existing streets by creating loops and eliminating dead-end streets whenever possible. Future developments of Fifth and Lincoln Streets have been specifically identified as streets which need to be connected to existing streets.
6. Prohibit heavy truck traffic, which would harm the roadbed and surface of neighborhood streets and bridges. A truck route, to be marked, is "I" Street to Second Street, Second Street to "E" Street, and "E" Street to the Columbia River Highway.
7. Cooperate with regional and County plans to improve the transportation network in the southeast County area.
8. Continue to support the efforts of COLCO Transportation to supply public transit to the citizens of Columbia City.
9. Give special attention to the needs of the handicapped and other transportation disadvantaged individuals whenever the City considers a proposal for the provision of public transit.
10. Encourage the use and improvement of bike and walking paths.
11. Encourage right lane refuges at collector streets along the Columbia River Highway when the Highway is widened through the City. (Completed)
12. Require concrete sidewalks in all new developments.

Open Spaces and Scenic and Historic Areas

Relevant Policies:

The policy is to highlight Columbia City's role in the development and preservation of Columbia County through preservation of scenic and historic sites. The City policy shall be to:

1. Protect the scenic views through enforcement of the Columbia City Zoning and Fence Ordinances.
2. Coordinate and cooperate with State and County agencies and other historical organizations providing funding for a continuing program of inventorying, cataloging, and preserving historic structures and sites in Columbia City, including the Lewis and Clark Trail.

Natural Resources - Fish

1. Maintain and improve the water quality and fish resources that exist in McBride Creek and the Columbia River.
2. Cooperate with the Oregon Department of Forestry and Oregon Department of Fish and Wildlife in minimizing the impacts of any development along McBride Creek.

Air, Water, and Land Resources Quality

Relevant Policies:

1. Require developers to use erosion control measures -- including the revegetation of construction sites when deemed necessary.
2. Establish a planting program to help reduce levels of noise and air pollution, protect drainageways, and provide cover for wildlife populations.
3. Cooperate with County, State, and federal agencies in environmental efforts.
4. Review residential, commercial, and industrial proposals for potential degradation of air, land, and water quality.
5. Ensure that future developments possess adequate on-site and off-site storm water drainage.

Recreational Needs

Relevant Polices:

1. Utilize available State and federal funds for acquisition and improvement of parks and bike paths whenever possible.
2. Acquire sites for needed future parks as far in advance as possible to avoid rising land costs and risks of having the land put to some other use.
3. Cooperatively involve private parties, the City, school district, and State and federal agencies in the development of local recreational resources.
4. Develop public access to the Columbia River at "H" Street (e.g. fishing dock).
5. Pursue the implementation of the bike plan, specifically attempting to loop the path at the north end of the City into the residential area on the west side of the highway.

Economic Development

Relevant General Economic Development Polices:

1. Actively encourage industrial development of the land designated industrial.
2. Participate in regional strategies aimed at economic development and tourism.

Commercial Areas

Goal:

To establish commercial areas which would provide a service to Columbia City and are properly integrated into the physical pattern of the City.

Relevant Polices:

1. Discourage "strip" commercial development.
2. Ensure that commercial enterprises maintain sufficient off-street parking to accommodate their customers, workers, and loading requirements.

Commercial/Recreational Areas

Goal:

To establish commercial/recreational areas which would provide a service to the local area and are properly integrated into the physical pattern of the City.

Relevant Policy:

Recognize the existing commercial/recreational use of property located adjacent to the commercial zone at Columbia River Highway and "A" Street.

Industrial Areas

Goal:

To provide a place for industrial activities where service and transportation requirements can be met and where their environmental effects will have minimal impact on the community.

Relevant Polices:

1. Ensure safe, environmentally-sound development that does not conflict with adjacent lands zoned for residential use.
2. Ensure industrial operations have space for employee parking and truck parking, unloading, maneuvering, and storage.
3. Encourage industrial development to diversify the tax base of the City.

Housing

Relevant Policies:

1. Allow high-density, multi-family dwellings in the City.

2. Allow low density, single-family, and duplex dwellings within the City.
3. Strive to provide services sufficient to meet the demand for housing, so the City will not have to impose building moratoriums or impose other constraints which drive up building costs.
4. Require subdividers to provide adequate public services with subdivision approvals.
5. Require lands to be set aside for public use.
6. Ensure sufficient traffic-carrying capacity of surrounding streets and capabilities of other public services and utilities.

Public Lands

Relevant Policies:

1. Recognize lands that are set aside for public use and encourage the maintenance and continuation of such uses.
2. Develop a City parks plan. The following shall be included:
   - A policy that the City concentrate on developing neighborhood parks on the west side of the City and public access to the Columbia River on the east side.
   - A policy to provide a looped bike path from the existing northern bike path into the northwest residential zone -- along Pacific Street as far north as possible.

Energy Conservation

Relevant Policy:

Assist in carpooling programs.

Urbanization

Relevant Policies:

1. Work with Columbia County in establishing and maintaining urban growth boundaries.
2. Review plans in the growth area to ensure the development of a safe road system.
3. Facilitate orderly and efficient transition from urbanizable land to urban land uses within the City's urban growth boundary area.
4. Cooperate with the County in managing the urban growth area by establishing the following conditions for the urban development of land within the growth area:
   - Ensure orderly and economic provision of public services and facilities.
   - Review existing lands to determine if sufficient infilling has occurred within the City.
   - Review requests to determine if a demonstrated need exists.
   - Determine if sufficient land for development has been identified to meet the demand.

Transportation Planning Rule (TPR) OAR 660, Division 12

Under Oregon's statewide planning process, transportation issues are addressed under Goal 12. The objective of the goal is to provide and encourage a safe, convenient, and economic

transportation system. This is accomplished by requiring all jurisdictions to prepare multimodal transportation plans that are based on an inventory of transportation needs and a consideration of social, economic, environmental, and energy impacts.

The Land Conservation and Development Commission recently adopted administrative rules (the Transportation Planning Rule or TPR) to implement Goal 12. This rule is predicated on the preparation and coordination of transportation system plans (TSPs) which are defined as plans for one or more facilities that are planned, developed, operated, and maintained in a coordinated manner to supply continuity of movement between modes and within and between geographic jurisdictional areas. In addition, these TSPs must be consistent with all other elements, including planned land uses and regional and local land use plans and regulations.

ODOT and regional and local governments must each prepare and adopt TSPs complying with the TPR.

The Transportation Planning Rule governs preparation and coordination of transportation system plans (TSPs). A transportation system plan is a plan for one or more transportation facilities that are planned, developed, operated, and maintained in a coordinated manner to supply continuity of movement between modes and within and between geographic and jurisdictional areas.

State, regional, and local TSPs are required to be in compliance with the standards set forth in the Transportation Planning Rule. It establishes a planning hierarchy whereby regional TSPs must be consistent with adopted elements of the State TSP, and local TSPs must be consistent with the regional TSP.

A local TSP establishes a system of transportation facilities and services adequate to meet identified local transportation system needs; i.e. needs to move people and goods within communities and portions of counties and to provide access to local destinations. As with regional TSPs, local TSPs must be prepared, adopted, and amended in compliance with the rule.

The rule places responsibility for developing the State TSP on ODOT. ODOT must identify a system of transportation facilities and services adequate to meet identified State transportation needs; i.e. needs for movement of people and goods between and through regions of the State and between the State and other states. The Oregon Transportation Plan (1992), prepared by ODOT is discussed in Section 2.2.3.

The rule requires that where conflicts arise between proposed regional TSPs and acknowledged comprehensive plans, representatives of affected local governments will meet to discuss means to resolve the conflicts. Identified methods of conflict resolution include changing the draft TSP to eliminate the conflict and amending acknowledged comprehensive plan provision to eliminate the conflicts.

The role of preparing and adopting the regional TSP rests with Columbia County, while cities must adopt local TSPs which must be coordinated among the affected governments and consistent with the regional TSP and adopted elements of the State TSP.

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) is a long-range comprehensive State transportation plan that sets priorities and State policy in Oregon for the next 40 years. The plan is closely linked to the Transportation Planning Rule. It carries out the federal Intermodal Surface Transportation Efficiency Act requirements for a state transportation plan.

The OTP envisions healthy growth, clean, air and less traffic congestion for Oregon. Reducing the use of the single-occupancy vehicle and reducing the vehicle miles traveled are both priorities of the OTP.

The Oregon Transportation Plan (OTP) is implemented through integrated state, regional, and local planning and private sector actions. ODOT multimodal and modal plans and system management carry out or amplify the OTP and are consistent with it. The Transportation Planning Rule calls for the transportation system plans of metropolitan planning organizations (MPOs), counties, and cities to be consistent with the adopted elements of the OTP.

The OTP provides general direction to several Modal System Plans. Along with the Highway and Bicycle Plans, there is, or will be, a Rail Plan, Transit Plan, Aeronautics Plan, Waterways Plan, Pipeline Plan, and Ports Plan.

Oregon Highway Plan

The Oregon Highway Plan is one modal element of the overall transportation planning effort constrained in the Oregon Transportation Plan (OTP). The Oregon Highway Plan classifies the State highway system into four levels of importance: interstate, statewide, regional, and district. Regional Transportation Plans must conform to the policies outlined in the Highway Plan.

As a modal plan, the Highway Plan implements the Oregon Transportation Commission's directions and policies relating to highways. As the OTP develops to include all transportation modes, future Highway Plans will be amended to align with OTP policies and OTP direction.

Portland to Astoria (U.S. Highway 30) Corridor Plan

The Portland to Astoria Corridor Plan provides a comprehensive strategy for transportation services along U.S. Highway 30. The Interim Corridor Strategy for Highway 30 proposes a long-term (20-year) program for the operation, preservation, and enhancement of transportation facilities within the Portland-Astoria Corridor. The purpose of the Corridor Strategy is to establish realistic performance objectives for transportation in the corridor and to make major transportation tradeoff decisions. The following is a list of relevant strategies for Columbia City identified in the Interim Corridor Plan:

Transportation Balance

Autos

- Provide no additional expansion in highway capacity from Columbia City to Portland, except for transportation system management (TSM) improvements such as turning lanes.
- In lieu of capacity expansions, emphasize transportation demand management (TDM) techniques, especially the promotion of alternative modes: pricing mechanisms, and land use patterns which encourage alternatives to single occupant vehicles.

Bicycles

- Provide bicycle lanes in urban areas and, at a minimum, provide five-foot shoulders to accommodate bicycle use along the entire corridor length.
- Provide connections to local bicycle and hiking systems where feasible.
- Provide bicycle crossings across Highway 30 where appropriate and feasible.
- Where feasible, develop remaining sections of the Old Highway 30 alignment into bicycle routes.

Pedestrian

- In urban areas, at a minimum, provide six-foot sidewalks on both sides of the highway and convenient and safe pedestrian crossings.

Urban Transit/Intercity Transit

- Investigate contracted transit services to serve increasing numbers of commuters between St. Helens and Portland.
- Investigate expansion of Kelso-Longview transit service into St. Helens/Rainier.
- Encourage vanpooling to large employment centers.
- Develop "Park and Ride" and "Park and Pool" lots.
- Manage the rail line to preserve future opportunities for rail service, particularly self-propelled passenger rail. Through Transportation Systems Plans and the Corridor General Plan, identify the conditions that would warrant future investigation of the feasibility of passenger rail services.

Rail Service

- Upgrade railroad crossings in conjunction with other roadway improvements.
- Make infrastructure improvements (railroad, streets, utilities, etc.) to enhance the investment climate for rail users.

Truck Freight

- Minimize additional long-haul truck use of Highway 30 by promoting increased bulk freight movement by rail and water.
- Improve truck access to industrial sites, including turn and acceleration/deceleration lanes where appropriate.
- Design local street systems to separate local truck traffic from through traffic.

Water

- Investigate commercial ferry service between St. Helens and Portland.

Pipelines

- To the extent feasible, utilize pipeline rights-of-way as bicycle and pedestrian pathways and wildlife corridors.

Regional Connectivity

- In urban areas, establish travel times compatible with the promotion of compact, pedestrian-friendly "Main Streets."
- Provide a better network of local streets (alternative routes) in urban and developed rural areas.

Highway Congestion

- Provide Level of Service (LOS) C or better within the urban area of Columbia City.
- Develop local access management and circulation plans to relieve localized congestion problems, to facilitate local trips crossing U.S. 30 safely without unduly interfering with through traffic, and to meet other local transportation system needs.
- Improve local street systems to reduce the need for U.S. 30 improvements.
- Improve traffic signalization in urban areas to improve safety and livability.

Social and Land Use Impacts

- Design transportation system improvements to preserve the livability of the communities within the corridor and to avoid, minimize, or eliminate the impacts to sensitive cultural resources and other community resources.
- Encourage transportation-efficient land use patterns that reduce vehicle miles traveled and promote a live/work balance; e.g. clustered developments, mixed uses, maximum parking ratios, and circulation systems that reduce out-of-direction travel.

Highway 30 Access Management Study

The Highway 30 Access Management Study was conducted to provide access management strategies and an access management plan for the future. The study was a cooperative effort among Oregon Department of Transportation, the City of St. Helens, the City of Columbia City, and Columbia County. The goals of the study were to:

- Move existing and future traffic volumes efficiently on US Highway 30 at reasonable speeds (35 mph inside City limits and 45 outside City limits).
- Serve the businesses and residents along the US Highway 30
- Provide transportation safety for all users.

A minimum driveway spacing of 150 feet is recommended for (all) right-in/right-out access points and for full-access points from single-unit residential developments; and a minimum driveway spacing of 300 feet is recommended for commercial, industrial, and multiple-unit residential developments. Joint access to the highway should be considered whenever possible, even with access to single-unit residential units.

The plan recommends a 20-foot wide standard driveway for single-unit residential developments, with a 16-foot minimum allowable width and a 24-foot maximum allowable width. For multi-family residential, commercial, and industrial developments, a 36-foot standard width and a 40-foot maximum width are recommended.

The plan recommends limiting the number of driveways per property frontage to a single drive, unless the frontage exceeds 1/4 mile. Access from neighborhood commercial developments located on the corner of a public street intersection is recommended to be restricted to access on the cross street only. At the permit authorization stage, adjacent property owners should be encouraged to construct joint-use driveways in lieu of separate driveways.

An adequate internal design and circulation plan is recommended to be prepared for all site developments having direct access to the highway. Specifically, driveway throats should be designed long enough to allow free movement on and off of the highway. Also, the plan recommends that an adequate intersection sight distance must be provided at all existing and future signalized and unsignalized intersections, including driveways.

4.0. EXISTING TRANSPORTATION SYSTEM AND CONDITIONS

Columbia City is located approximately 32 miles north of Portland and just 2 miles north of neighboring St. Helens. While Columbia City is a relatively small residential community, the City has a fairly comprehensive multi-modal transportation system. Automobile and truck transportation is primarily served by US Highway 30, a major statewide transportation facility connecting Portland with Astoria. In addition to Highway 30, the City has an established network of community streets and roadways, as well as an existing bicycle network and plan, pedestrian ways, railroad connections, and the Columbia River, which provides a waterway for both recreational and commercial transportation.

As a requirement to the Systems Plan, a detailed inventory of Columbia City's existing transportation system was conducted. This included a field inventory of the location and condition of existing streets and highways, bicycle routes and paths, as well as pedestrian ways and sidewalks throughout the area. To supplement the field inventory, traffic counts were conducted throughout the area, and information on other modes were obtained through discussions with transportation officials and existing reports. The following is a summary of Columbia City's existing transportation system:

4.1 Highway and Roadway System

There are approximately 11.35 miles of platted City streets and roadways within Columbia City's urban growth boundary. The main artery for the City is the Columbia River Highway (US Highway 30). The highway dissects the City in a north/south line for 1.6 miles and connects Columbia City with neighboring St. Helens and Portland to the South and Longview, Washington, and the Oregon Coast to the North.

Only a small portion of Columbia City's roadway network is of the highest standard with asphalt concrete and curbed shoulders. These streets are primarily located along newer subdivisions and streets west of Highway 30. There are several gravel or natural surfaced roadways in Columbia City. The remaining roads in Columbia City are paved, but do not have curbs or adjacent sidewalks. Figure 4.1 depicts the existing standard of each roadway in Columbia City.

Functional Classification

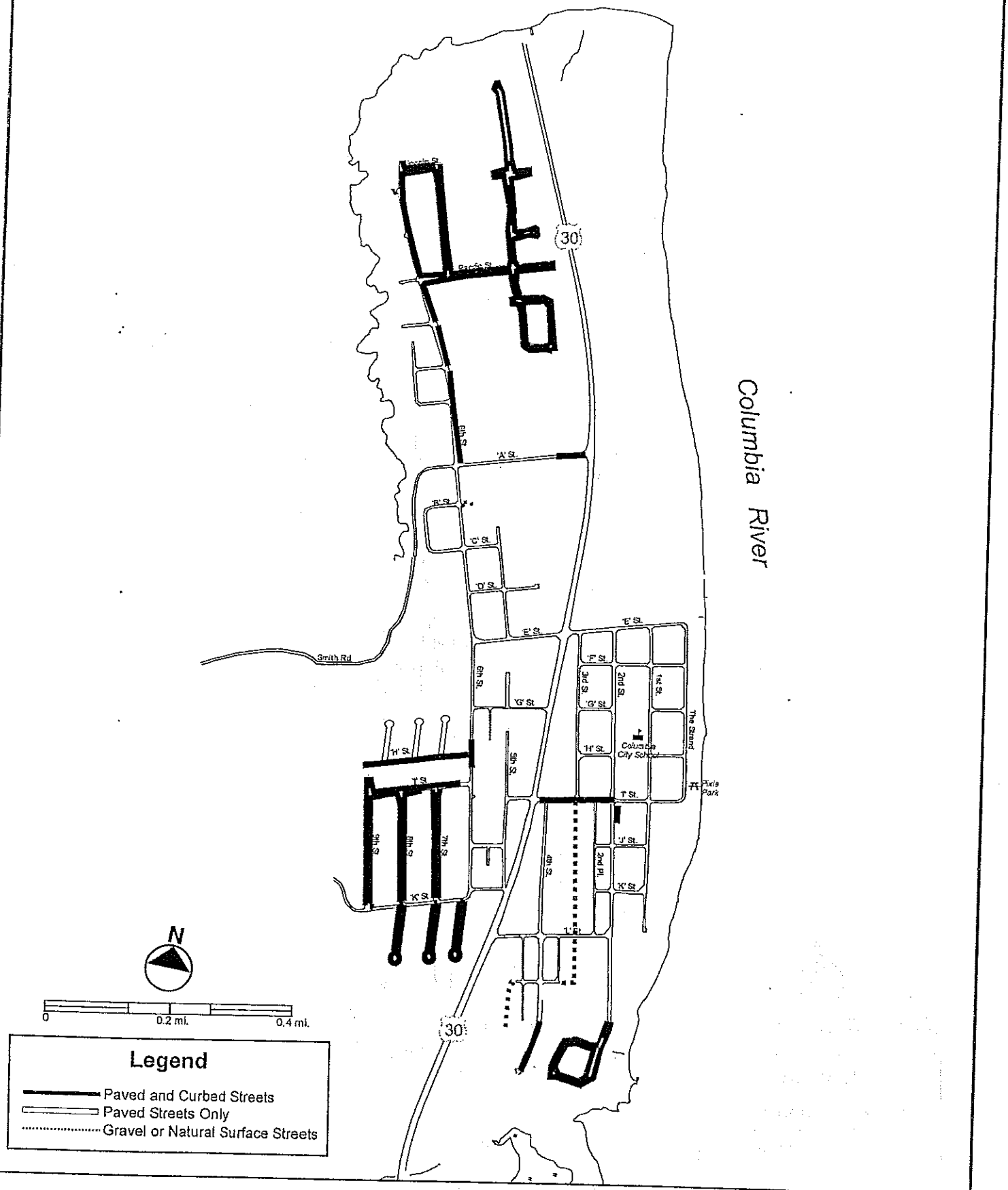
Columbia City currently has three functional classifications for its roadway system. The functional classification system requires different design standards and defines certain roles for its City streets. Columbia City's existing roadway functional classification system is illustrated on Figure 4.2.

The Columbia City functional classification system includes:

Arterials - These facilities carry the highest volumes of traffic and primarily function to provide mobility with limited access. The only arterial in Columbia City is the Lower Columbia River Highway (US Highway 30).

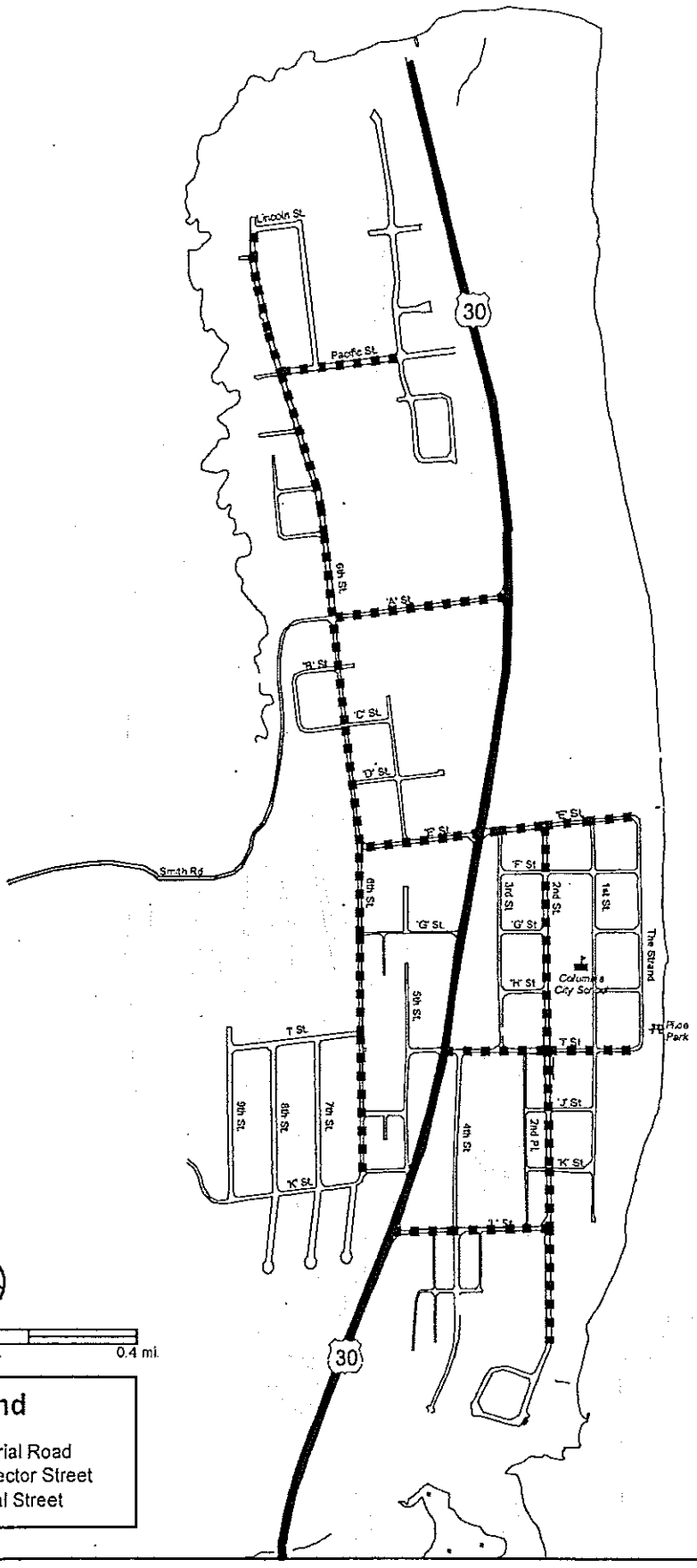
Collectors - These streets provide both land access and movement within residential, commercial, and industrial uses. These streets gather traffic from local streets and serve as connectors to arterials. Columbia City has a number of defined collector streets, as depicted on Figure 4.2.

Local Streets - These streets provide land access to residential and other properties within neighborhoods and generally do not intersect with any arterial routes. Streets classified as Local Streets are also depicted on Figure 4.2.



Columbia City Transportation System Plan

Figure 4.1
Existing Roadway Conditions



Columbia City Transportation System Plan

Figure 4.2
Existing Functional Classification

Traffic Circulation

The Lower Columbia River Highway (US 30) serves as the main artery for Columbia City. This highway has been upgraded to five lanes, two lanes in each direction with a continuous turning lane. Traffic along the Lower Columbia River Highway is continuous, only connecting traffic is required to stop before crossing or entering the Highway. The Highway Access Management Study, however, recommended a traffic signal at "E" Street when warranted. This signal was added during the Highway 30 Widening Project.

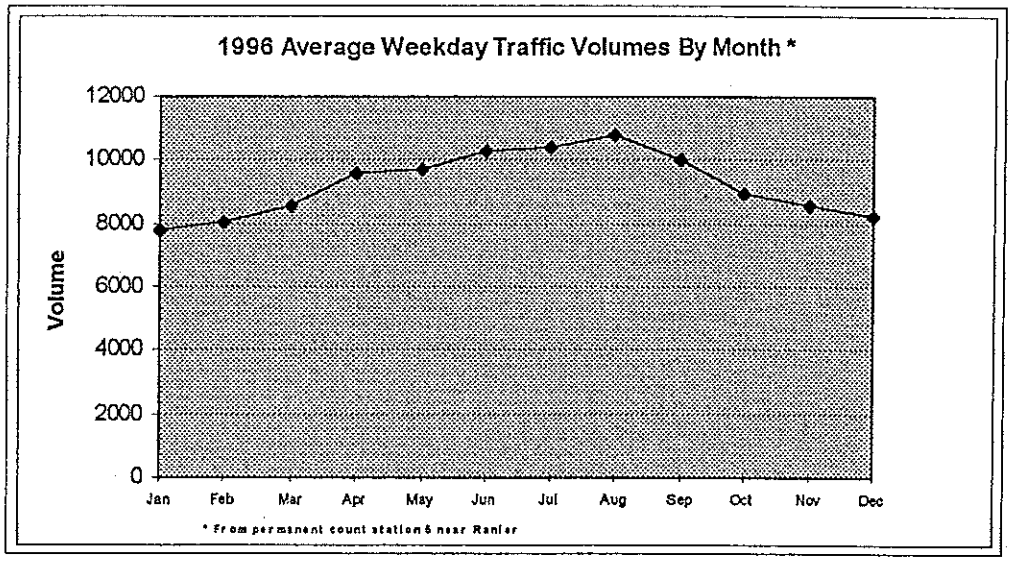
Columbia City currently has a designated truck route through the City, routing trucks from the Port of St. Helens to U.S. Highway 30. The route is designed to reduce the damage to neighborhood streets. The route follows "I" Street to Second Street, Second Street to "E" Street, and "E" Street to the Lower Columbia River Highway. However, the businesses at the Port property have been asked to use "E" Street to and from the Port to reduce residential neighborhood impact.

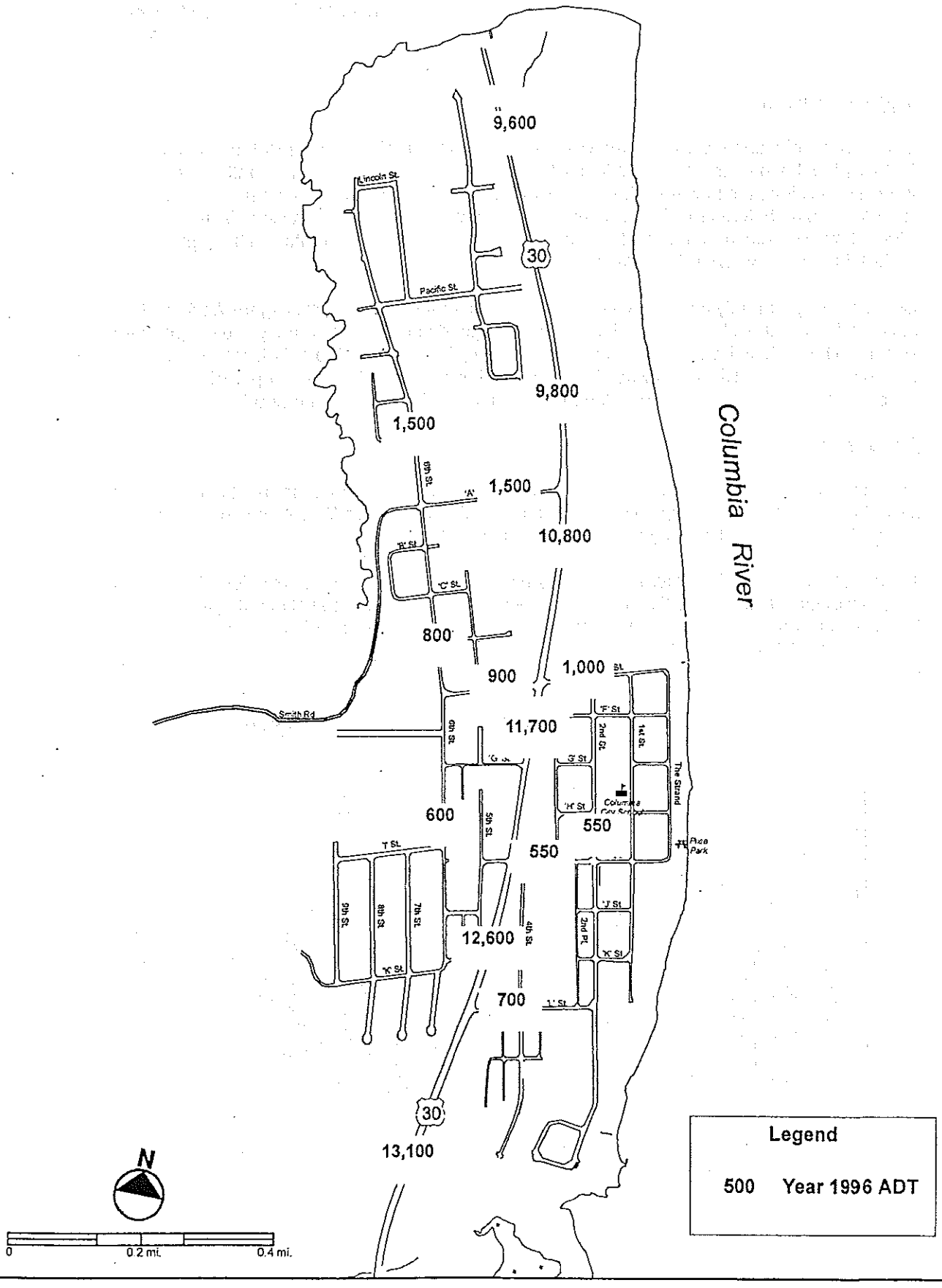
Average Daily Traffic

Traffic volumes along the Lower Columbia River Highway (US 30) range from a high of 13,100 near the south City limits to 9,500 at the north City limits. Existing traffic volume counts all along the Lower Columbia River Highway are depicted on Figure 4.3

Traffic volumes along the Columbia River Highway in Columbia City vary considerably by time of day, day of the week, and by time of year. During the peak summer travel months, traffic along Highway 30 increases by as much as 40 percent compared to travel during the winter months. Figure 4.4 depicts the monthly differences in traffic volumes along the Lower Columbia River Highway.

Figure 4.4: Average Daily Traffic By Month - U.S. Highway 30





Columbia City
Transportation System Plan

Figure 4.3
Existing (1996)
Average Daily Traffic

Traffic Safety Analysis

The Oregon Department of Transportation maintains a comprehensive database on statewide traffic accidents. This database includes accident information on state-maintained highways as well as all other urban and rural locations.

Accident information for a three-year period (January 1, 1993 to December 31, 1995) was obtained for the Columbia City area. During this three-year period, a total of ten accidents were reported within the Columbia City urban growth boundary. Eight of the ten accidents occurred along the Lower Columbia River Highway. One accident, near the north City limit, resulted in a fatality; and three accidents involved injuries. Figure 4.5 depicts the locations for all traffic accidents occurring within Columbia City over the last three years.

4.2 Public Transportation

Public transportation in Columbia City is provided by Columbia County Transportation (COLCO). COLCO is a non-profit corporation operated by the Columbia County Council of Senior Citizens and has provided transportation services in the region since 1969. This organization operates a dial-a-ride service throughout Columbia County. COLCO currently operates 20 vehicles ranging from minivans to small buses (holding up to fourteen passengers). Twelve of these vehicles are wheelchair accessible with lifts or ramps. COLCO also provides trips into Portland, Beaverton, and Hillsboro for medical services from Columbia City.

4.3 Bicycle Facilities

In 1983, a mile-long bicycle path was constructed with County funds at the north end of the City. A bike route is also designated along the east side of the City that connects with the Rutherford Road Parkway at the southern City limits.

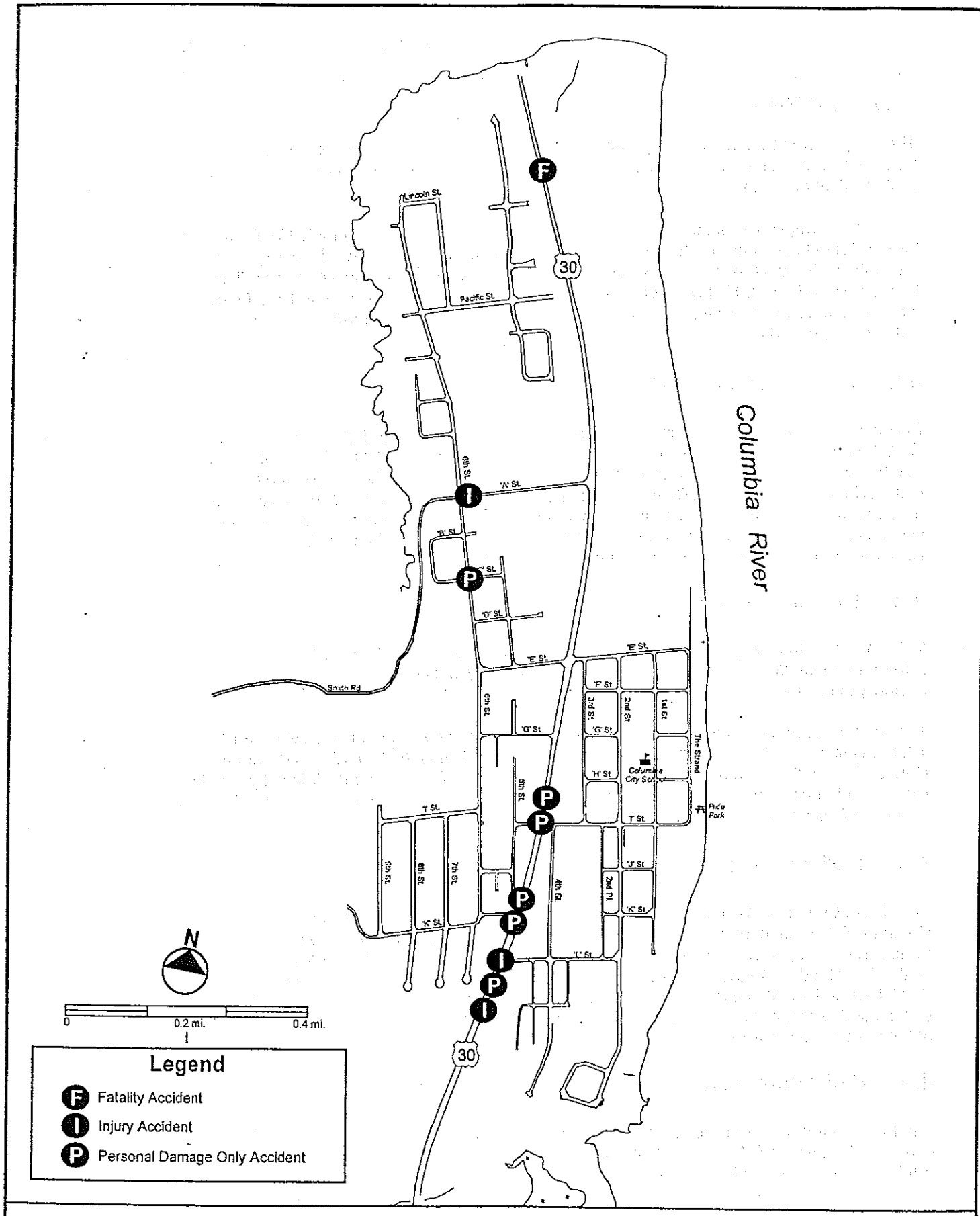
The Rutherford Path, which connects the cities of St. Helens and Columbia City, was constructed in 1986 with state grant monies obtained through the cooperation of the two cities and Columbia County. The path, which runs parallel to the Columbia River Highway, is maintained by both the cities of Columbia City and St. Helens through a joint agreement. Figure 4.6 depicts the location of Columbia City's designated bicycle routes.

4.4 Pedestrian Transportation

The City of Columbia City has a very limited pedestrian network of sidewalks and paths. None of Columbia City's neighborhoods have a complete sidewalk system allowing for off-street pedestrian traffic. There are, however, two existing pedestrian pathways located within the City: the Rutherford Road Parkway, a multi-use pedestrian and bicycle path connecting Columbia City with St. Helens and a path adjacent to Highway 30 in the northern half of the City. Figure 4.7 displays Columbia City's limited pedestrian network. Historically, people enjoyed walking down the middle of the streets. Now it is more difficult and dangerous.

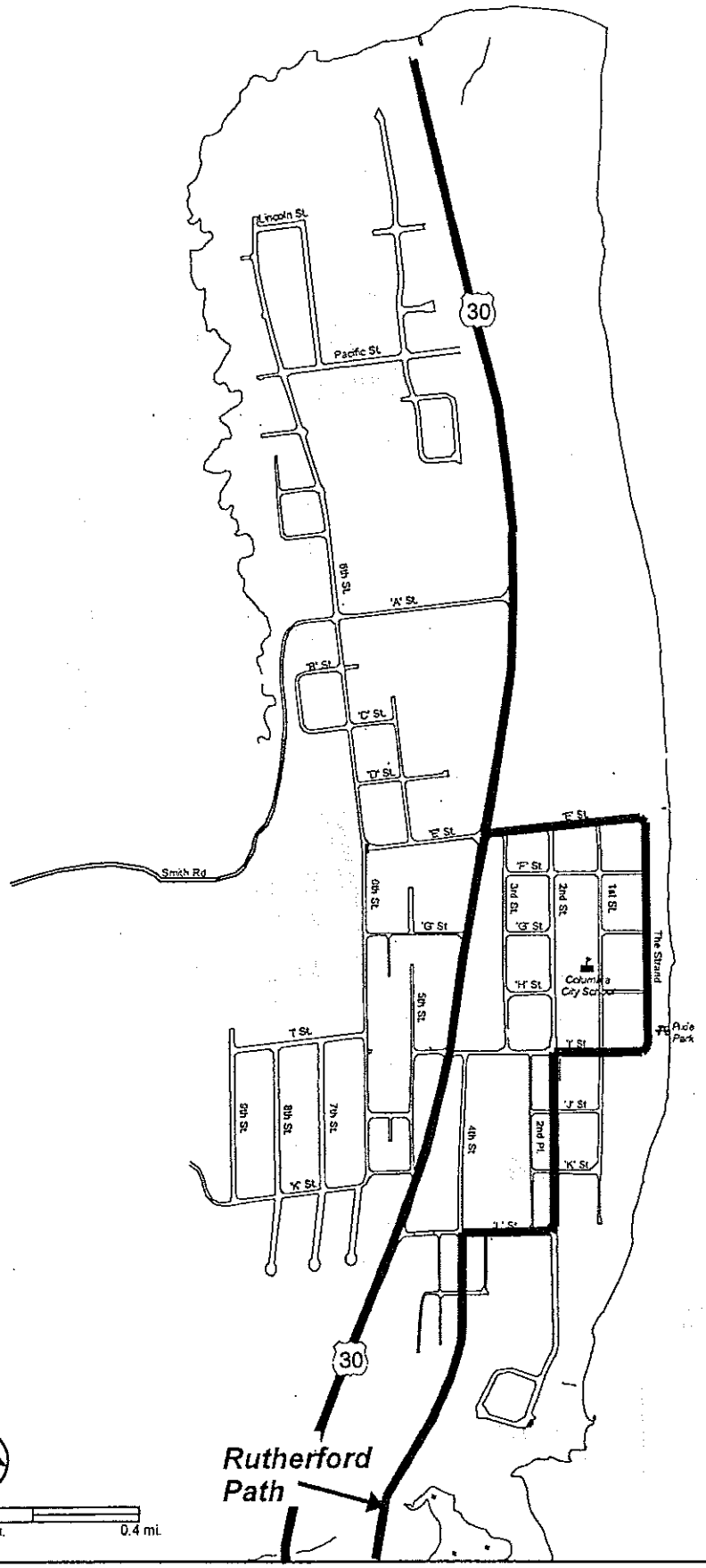
4.5 Rail Transportation

The Portland and Western "Port Access Branch Line" passes through Columbia City. This rail line connects the cities of Astoria, Clatskanie, Rainier, Columbia City, St. Helens, and Scappoose with Burlington Northern's mainline in Portland. The railroad also operates a spur line serving the Port's industrial property. Figure 4.8 graphically illustrates existing rail lines in Columbia City.



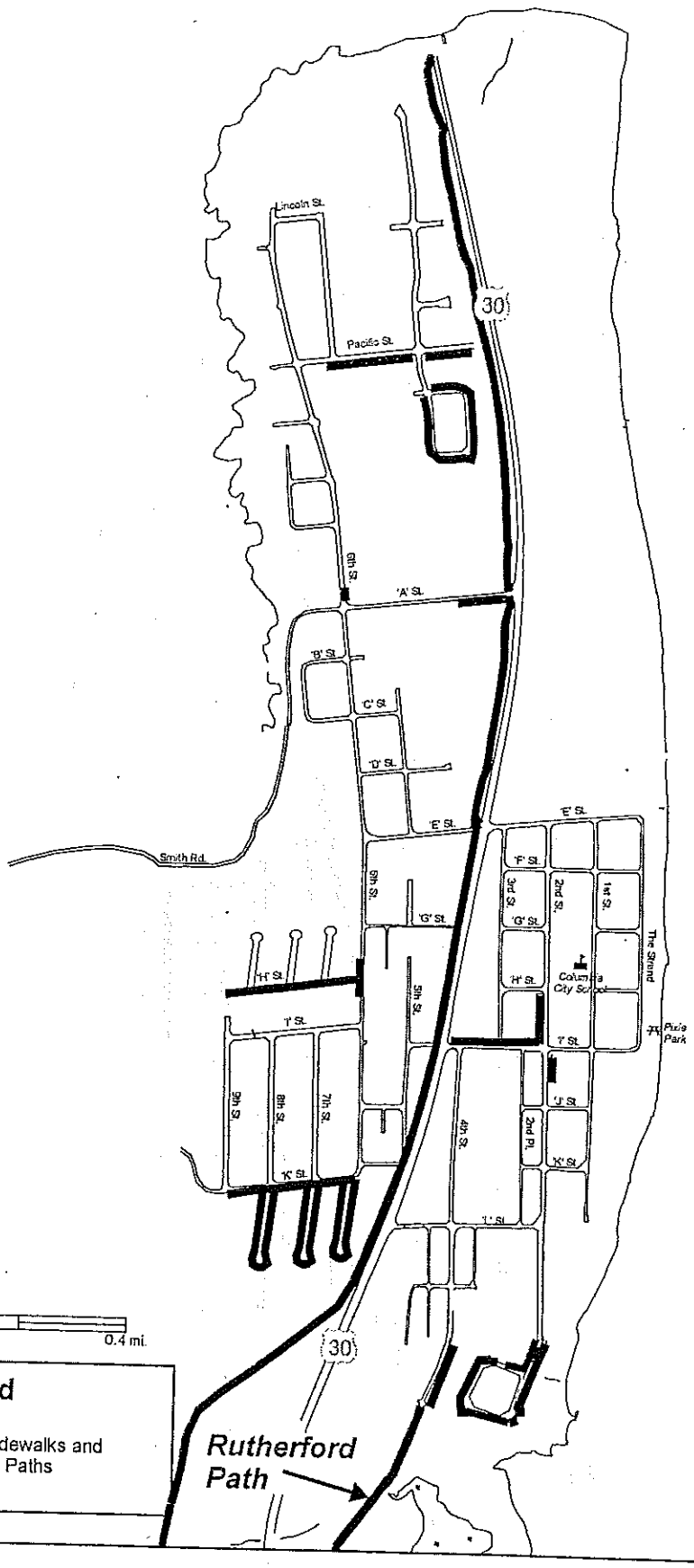
Columbia City Transportation System Plan

Figure 4.5
Traffic Accident Locations
1993 - 1995



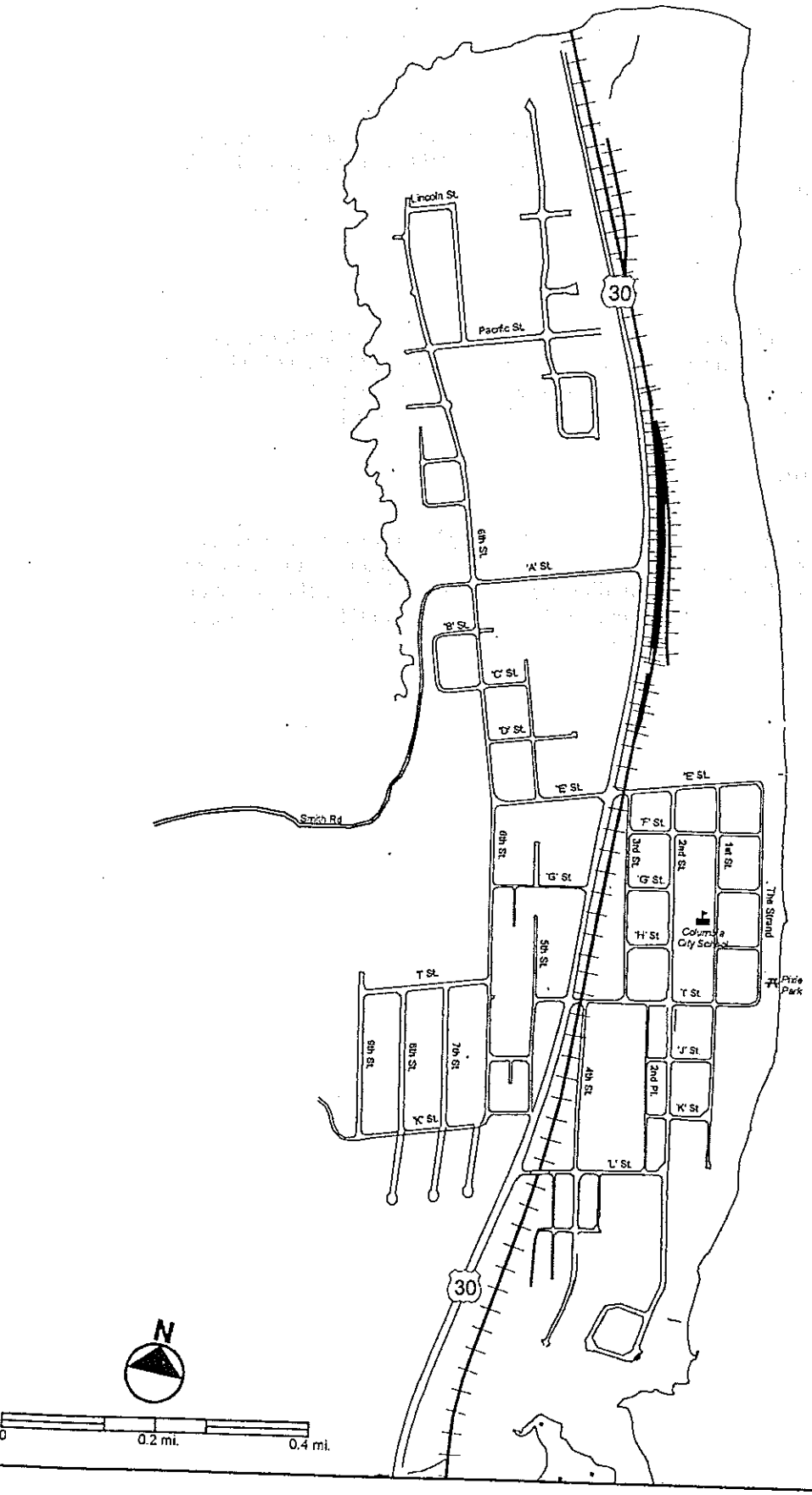
Columbia City Transportation System Plan

Figure 4.6
Existing Bicycle Routes and Paths



Columbia City Transportation System Plan

Figure 4.7
Existing Sidewalks and Pedestrian Paths



Columbia City
Transportation System Plan

Figure 4.8
Existing Rail Line

4.6 Water Transportation

Columbia City's eastern corporate limits extend to the center of the Columbia River. A significant amount of ship traffic passes by the City. Barge loading is available at the Port of St. Helens' facility, located in the northeast portion of the City. Pleasure boats comprise the remaining marine activity with some private docks and ramps in the City itself.

4.7 Air Transportation

The nearest air transportation facility is in Scappoose. Heliports are available for emergencies at the Oregon State Forestry facility in Columbia City, at Good Samaritan Medical Mall in St. Helens and the Warren Country Inn. Portland's International Airport, providing worldwide passenger and freight service, is approximately 50 minutes driving time from Columbia City.

4.8 Pipeline Facilities

A high-pressure gas transmission line, owned and operated by Northwest Natural Gas, runs through Columbia City. It is located on the west side of Highway 30 at the northern end of the City. It crosses the Highway at "E" Street (on the north side). It runs from "E" Street to "L" Street on the west side of Third Street -- where it travels west one block on the north side of "L" Street to Fourth Street. It continues on Fourth Street and follows the Rutherford Road Parkway as it extends south and to the City of St. Helens.

5.0. FUTURE TRANSPORTATION CONDITIONS AND NEEDS

This section presents the forecast future transportation conditions for Columbia City. Included is an evaluation of the City's future transportation needs. The forecast transportation conditions and the identification of needs are essential in developing specific transportation alternatives and projects that will be included in the transportation system plan.

The future transportation conditions and needs are based on forecast travel demands which rely upon increases in population, housing, and employment in the Columbia City area. The following section discusses population and employment forecasts for the Columbia City Urban Growth Boundary:

5.1 Forecast Demographic Conditions

The following sections discuss the demographic forecasts assumed in developing the future transportation needs for the community of Columbia City. The demographic forecasts are used as inputs into the travel demand model and assist in determining future traffic volumes.

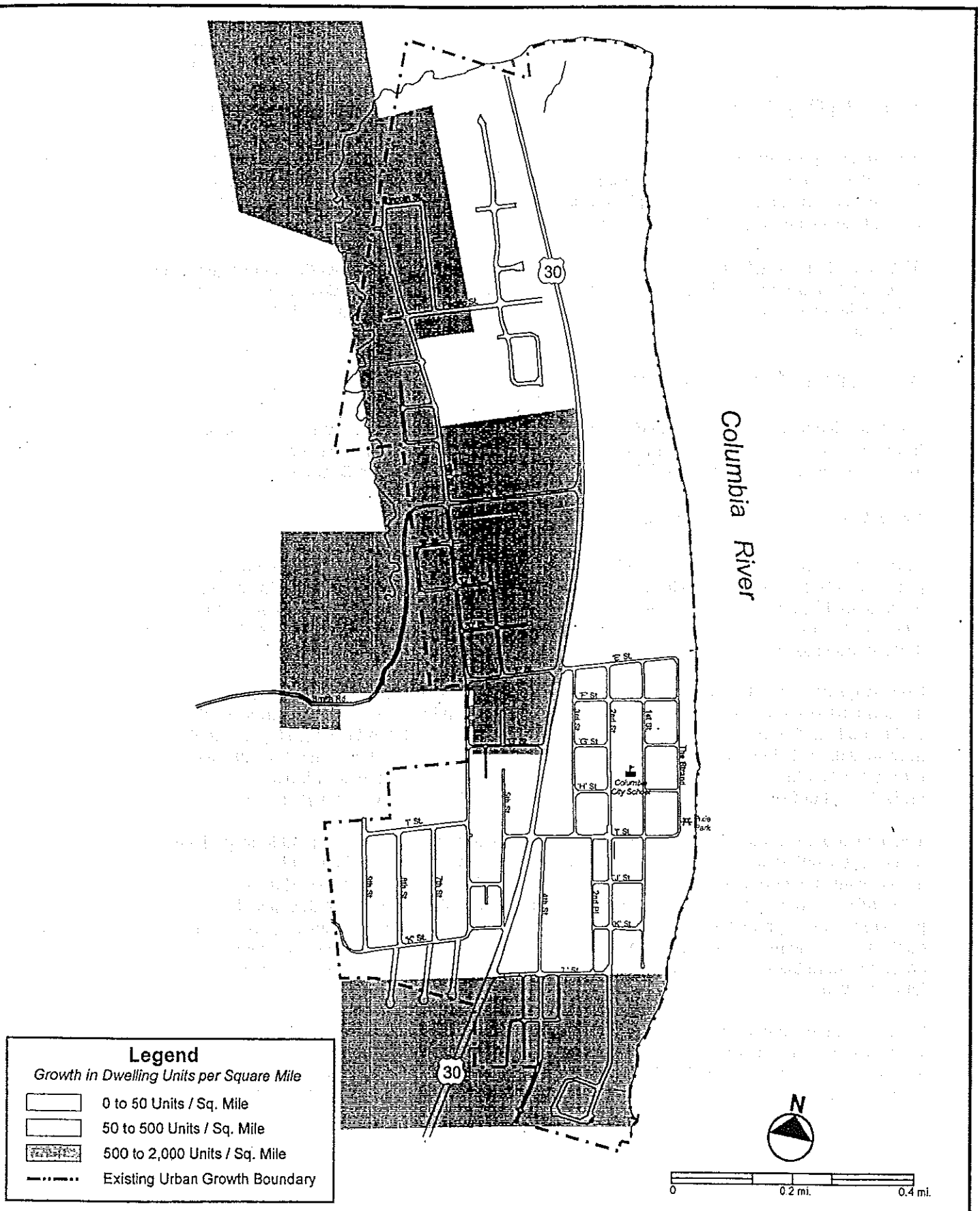
Population and Housing Assumptions

The City's Comprehensive Plan, adopted in October of 1992, utilizes population and housing projections based on historical trends up to the year 1990. The Comprehensive Plan's projections assume that by the year 2010, Columbia City's total population will reach 1,542 people (an increase of 54 percent from 1990). Based on the population projection of 1,542, the City estimated that it needed to plan for an additional 192 housing units inside the urban growth boundary.

However, since completion of the Comprehensive Plan, Columbia City has experienced a tremendous amount of growth. By the year 1995, population has increased to approximately 1,350 and more than 160 new housing units have been constructed in Columbia City, 78 percent of the new housing units the City estimated it needed by the year 2010. Based on this continuous growth rate, it is estimated the City will not only quickly surpass the Comprehensive Plan's year 2010 projections, but Columbia City will fill its entire urban growth boundary by the year 2004.

The Transportation Planning Rule requires that the transportation system plan address projects and policies that address the City's future transportation over a 20-year planning horizon based on a continuation of current growth trends. To ensure that the City's future transportation needs can be identified and properly addressed, updated population and housing estimates have been prepared. These projections assume that the City's current rate of annual housing starts will continue over the next 20 years. Members of the Columbia City staff identified locations and total acreage where the urban growth boundary can and most likely will be expanded to accommodate future growth.

Based on the previous assumptions, revised population and housing projections were developed. Table 5.1 presents the revised population and housing forecasts compared to historical trends and growth rates. Figure 5.1 graphically displays the expected growth in dwelling units by density for the Columbia City area. The figure identifies that much of the vacant land and new development is anticipated west of Highway 30.



Columbia City Transportation System Plan

Figure 5.1
Forecast Growth in Dwelling Units 1996 - 2016

Table 5.1
COLUMBIA CITY FORECAST POPULATION AND DWELLING UNIT GROWTH
1960 - 2016

Year	Columbia City Population	Avg. Yearly Population Growth Rate	Columbia City Dwelling Units	Avg. Yearly DU Growth Rate
1960	423		--	
1970	537	2.4%	--	--
1980	678	2.4%	268	--
1990	1,003	4.0%	355	2.9%
1995	1,350	6.1%	521	6.6%
2016	2,700	3.5%	1050	3.5%

Sources: Center for Population and Research, Portland State University, City of Columbia City, Parsons Brinckerhoff.

Employment Forecasts

Columbia City is predominantly a residential community with a small amount of industrial and employment activity. Currently, it is estimated there are 100 employees working in Columbia City. The City's policy towards economic development, identified in the Comprehensive Plan, calls for controlled and orderly economic growth. Based on the City's economic policies, only a moderate increase in employment is projected. Table 5.2 illustrates the employment forecasts by sector for Columbia City.

Most of the employment growth anticipated for Columbia City will be in the industrial and manufacturing sector. The Port of St. Helens is actively marketing its industrial sites and is forecast to attract some small-scale manufacturing activity. The remaining employment sectors should experience a small amount of growth, primarily from meeting the service needs of Columbia City's growing population.

Table 5.2
COLUMBIA CITY EMPLOYMENT FORECASTS
1995 - 2016

Sector	1995	2016
Industrial/Manufacturing	62	200
Retail/Service	18	60
Educational	12	25
Government	8	15
Total	100	300

Sources: City of Columbia City
Parsons Brinckerhoff

5.2 Future (Year 2016) Transportation Conditions

The QRS-II travel demand model, developed as part of the Transportation System Plan, was used to forecast future traffic demand on the Columbia City arterial and collector roadway network. The travel demand model utilized the demographic assumptions discussed in Section 5.1 to determine the location and number of origins and destinations of travelers within Columbia City. The traffic model then assigned the number of vehicle trips to the Columbia City roadway network.

The forecast traffic volumes are used as a basis to determine transportation conditions and needs within Columbia City. The future roadway network included the improvements that are currently planned as part of the Highway 30 reconstruction project. These specific improvements include the completion of Highway 30 to five continuous lanes throughout the Columbia City Urban Growth Boundary, the implementation of a traffic signal at the Highway 30/"E" Street intersection, the extension of Pacific Street to Highway 30, and the realignment of the Port of St. Helens entrance on Highway 30 to connect with Pacific Street. (These improvements were completed with the Highway 30 Widening Project.)

Vehicle Miles and Hours of Travel

The forecast demographic assumptions suggest that Columbia City is likely to double in population over the next 20 years. As a result, traffic volumes in the area are anticipated to increase at a similar rate. Overall, daily vehicle miles of travel (VMT) on the entire Columbia City roadway network are forecast to increase by 95 percent between 1996 and 2016 (Table 5.3). As a result of more vehicles traveling in Columbia City, total vehicle hours of travel (VHT), the amount of time spent traveling, is also forecast to increase.

Table 5.3
DAILY VEHICLE MILES OF TRAVEL AND HOURS OF TRAVEL
All Vehicles in Columbia City (Local and Through Trips)[1]
1996 - 2016

	1996	2016
Vehicle Miles of Travel	24,900	48,500
Vehicle Hours of Travel	570	1,100

1. Includes all vehicles traveling on Columbia City's roadway system.

Table 5.3 displays VMT and VHT forecasts for all vehicles traveling on the Columbia City roadway system, even motorists traveling through the community on Highway 30. Table 5.4 displays VMT and VHT forecasts for local trips only (i.e. vehicles having an origin or destination within Columbia City, excluding through trips on Highway 30). The amount of local traffic is forecast to more than double between 1996 and 2016. Also, because of an increased number of local trips, total vehicle hours of travel are anticipated to double. However, on a per capita basis, the time motorists spend traveling on a typical day is not anticipated to increase. This indicates that average travel speeds will remain constant over the next 20 years and that traffic congestion in Columbia City is not likely to occur or worsen from today's conditions.

Table 5.4
DAILY VEHICLE MILES OF TRAVEL AND HOURS OF TRAVEL
Local Columbia City Trips Only[2]
1996 - 2016

	1996	2016	1996 Per Capita	2016 Per Capita
Vehicle Miles of Travel	6,850	14,400	5.1 miles	5.4 miles
Vehicle Hours of Travel	200	400	8.9 min.	8.9 min.

2. Trips having an origin or a destination within Columbia City, excludes through trips on Highway 30

Year 2016 Forecast Traffic Volumes

Figure 5.2 displays the year 2016 average daily traffic forecasts for the Columbia City area. Overall, traffic volumes are forecast to increase in all areas of Columbia City. The largest traffic volume increases are anticipated on Highway 30. This is primarily due to an increasing number of vehicles traveling through Columbia City, as well as the anticipation of a increasing number of residents commuting to areas outside of Columbia City. On average, forecast traffic volumes on Highway 30 range from 25,000 at the south City limits to 18,300 at the north City limits.

Roadways west of Highway 30 area are also forecast to experience notable traffic increases. The extension of Pacific Street to Highway 30 is anticipated to attract 2,800 vehicles a day, making it the busiest collector roadway in the City in the year 2016. "A" and "E" Streets are also forecast to experience moderate increases in traffic volumes. It should be noted that the completion of Pacific Street to Highway 30 reduces considerable traffic demand on both "A" and "E" streets.

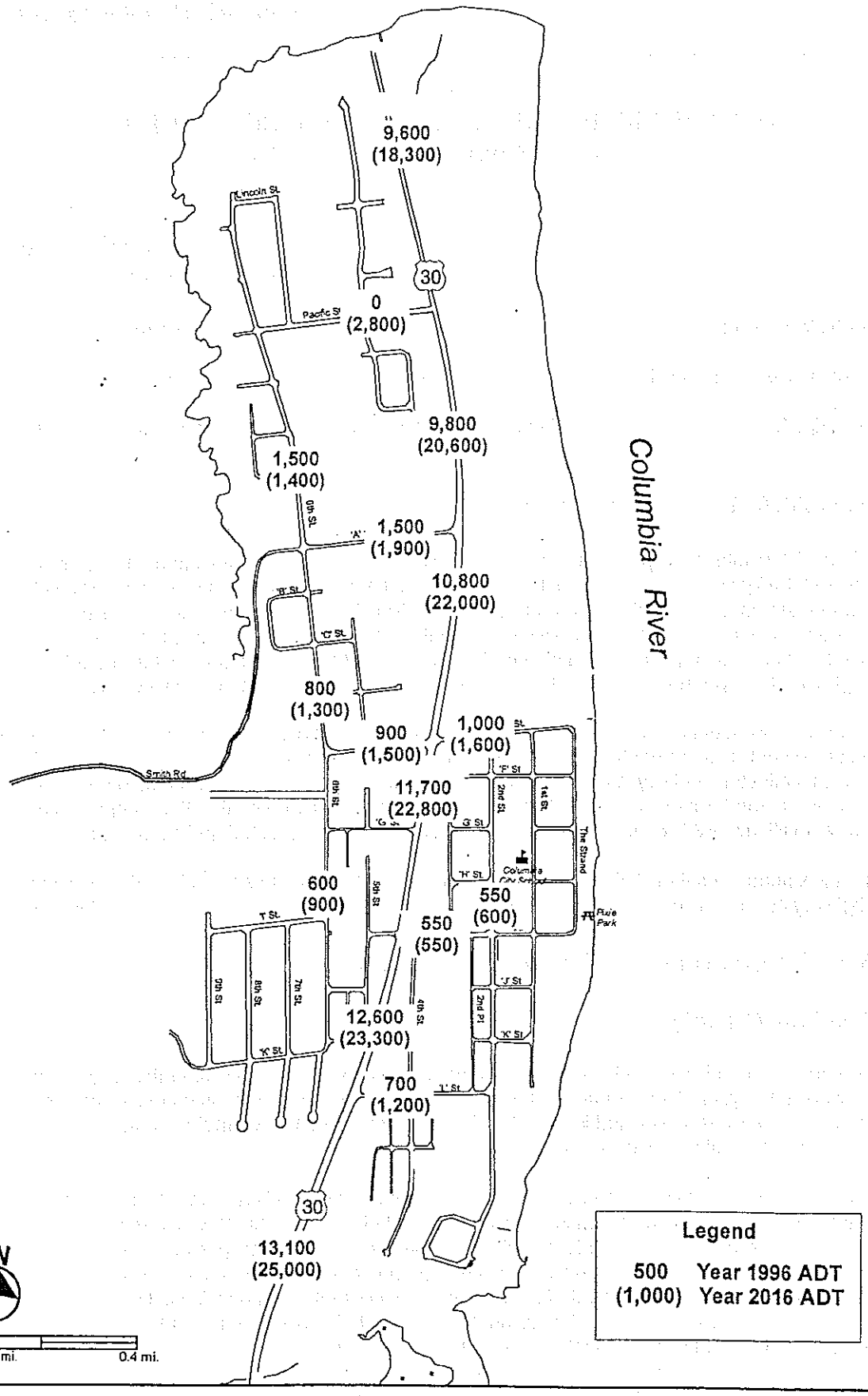
Traffic volumes, east of Highway 30 are not anticipated to increase as much as those west of Highway 30. This is primarily due to less development anticipated for this area of Columbia City.

5.3 Future (Year 2016) Transportation Needs

Roadway Capacity Needs

The purpose of this section is to discuss the operating conditions of the Columbia City roadway network in the year 2016. An understanding of any deficient locations will enable development of future alternative roadway and intersection improvements to enhance mobility and safety and decrease congestion within Columbia City.

In addition to the traffic volumes discussed in Section 5.2, intersection Level-of-Service (LOS) was used to determine transportation improvements needed for Columbia City. Intersection LOS was determined by using ODOT's "Sigcap" signalized intersection analysis package. Signalized intersection LOS is determined by calculating "percent saturation" for an intersection. Percent saturation represents the amount of intersection capacity that is being utilized. Unsignalized intersection LOS was determined by using the Transportation Research Board's "Highway Capacity Software." Unsignalized intersection LOS is based on average delay per vehicle entering the intersection. Appendix B contains definitions of Levels-of-Service and a description of how the levels are stratified for both signalized and unsignalized intersections.



Columbia City
Transportation System Plan

Figure 5.2
Year 2016 Forecast
Average Daily Traffic

Tables 5.5 shows intersection LOS results for key intersections within Columbia City. Figure 5.3 is a map that also shows the LOS results for these intersections.

Table 5.5
INTERSECTION LEVEL OF SERVICE

Intersection	Average Delay (sec)	Level-of-Service
Highway 30/ "L" Street	3.1	A
Highway 30/ "I" Street	5.6	B
Highway 30/ "E" Street	53%	B
Highway 30/ "A" Street	7.2	B
Highway 30/ Pacific Street	5.0	B
Sixth St. / "A" Street	3.9	A
Sixth St. / "E" Street	1.3	A
Second St. / "E" Street	2.4	A
Second St. / "I" Street	0.7	A

The determination of acceptable Levels-of-Service is guided by the 1991 Oregon Highway Plan. According to the Plan, the roadway LOS standard for Highway 30 is "C." This LOS designation corresponds to the roadway segment LOS shown in Figure 5.5 and is concerned with the ability of vehicles to move along Highway 30 itself. Roadway segments are defined by a length of road bounded on either end by intersections or access points. Therefore, roadway LOS is highly dependent on intersection LOS. Generally, intersections along an arterial must operate at LOS D or better in order to provide LOS C on the roadway. Intersection LOS standards are generally less strict because they consider delay to vehicles approaching from either three or four directions. In conclusion, this Transportation System Plan considers roadways not operating at LOS C or better and intersections not operating at LOS D or better as deficient.

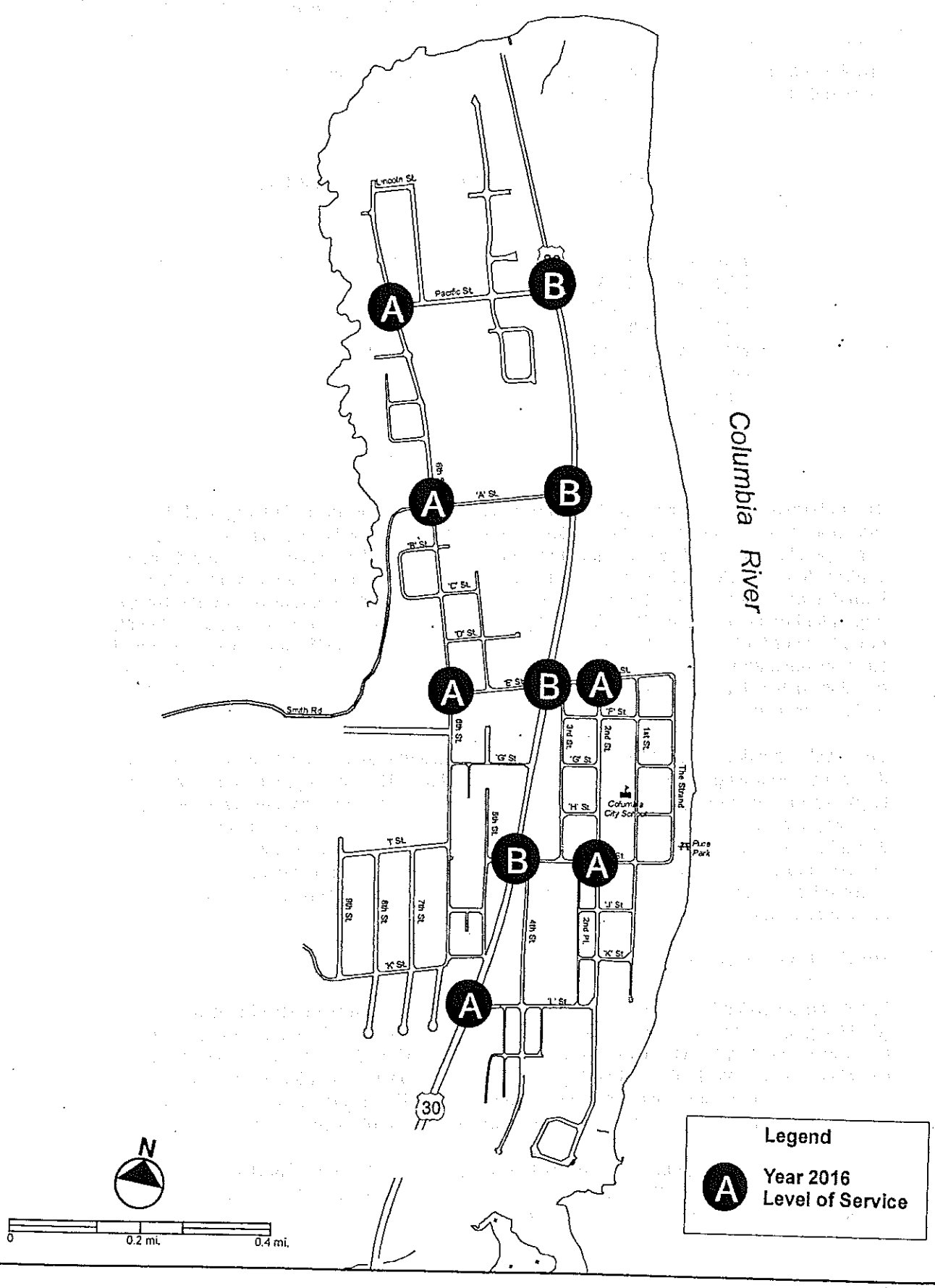
The level of service analysis for Columbia City indicates that there are no roadways or intersections that will be operating at unacceptable levels in the future. The development of five lanes on Highway 30, with turning lanes, and the extension of Pacific Street solves many of the anticipated roadway capacity problems in Columbia City. Pacific Street adds an additional access to Highway 30 on the westside and reduces traffic demand on "A" and "E" streets helping the system's overall level of service. Additional traffic lanes on Highway 30 create sufficient capacity for forecast traffic. Turning lanes on Highway 30 help to increase the level of service at many of the key intersections in Columbia City.

Public Transportation Needs

Local transit service is currently provided by the Columbia County Council of Senior Citizens (COLCO). COLCO currently provides dial-a-ride service for all of Columbia County, including Columbia City. In 1995 COLCO provided approximately 130,000 trips transporting Columbia County residents. While Columbia City is anticipated to continue growing in population, it is not anticipated that the community will need or be able to justify an intra-city fixed-route transit system. Instead, it is likely that COLCO will need to expand operation of its current local dial-a-ride service.

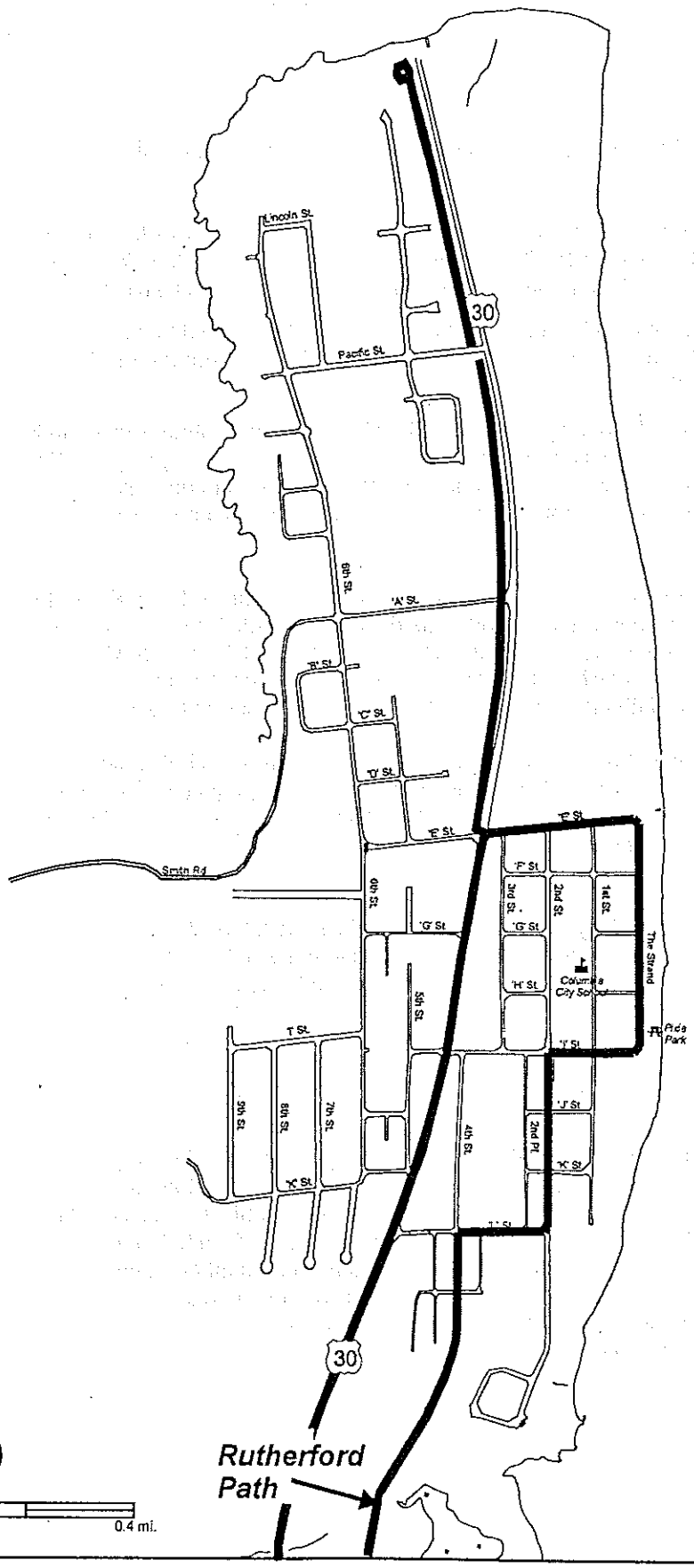
Intercity transit service is also operated by the Columbia County Council of Senior Citizens. A recent study sponsored by the Oregon Department of Transportation[1] has identified a future need for increased intercity public transit between Columbia City/St. Helens and Portland.

[1] US 30 Transit Feasibility Study, David Evans & Associates, August 1996.



Columbia City
Transportation System Plan

Figure 5.3
Year 2016 - Intersection
Level of Service



Columbia City Transportation System Plan

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Figure 5.4
Bicycle Routes and Paths

Bicycle Transportation Needs

The Oregon Bicycle Plan establishes specific principles for bikeway development in urban areas. These include:

- Bicycle networks should be developed and promoted in all urban areas to provide safe, direct, and convenient access to all major employment, shopping, educational, and recreational destinations in a manner that would double person trips by bicycle.
- Secure and convenient bicycle storage available to the public should be provided at all major employment and shopping centers, park and ride lots, passenger terminals, and recreational destinations.
- Statewide and regional bicycle systems should be integrated with other transportation systems in urban areas to accommodate commuting and other trips by bicycle. Safe, direct, and continuous bikeways free of unnecessary delays should be provided along all urban arterial and major collector routes. Paved shoulders should be provided on highways in rural areas.

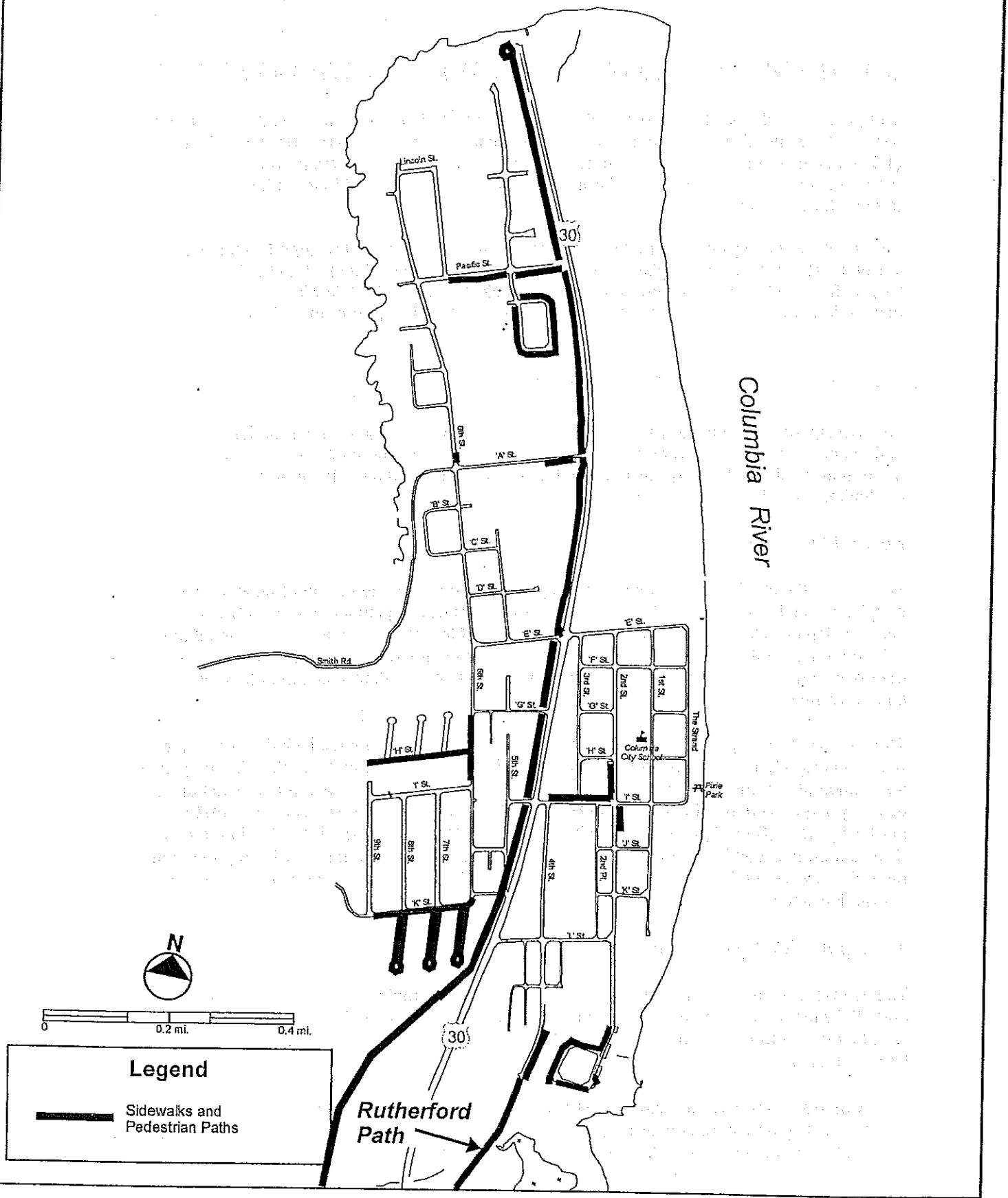
Columbia City currently has one designated bicycle route. The route connects the Rutherford Road Parkway to bicycle lanes along Highway 30. The designated route travels along several City streets including The Strand along the waterfront before connecting to Highway 30 via "E" Street (see Figure 5.4). The route currently has "Bicycle Route" signage but does not include striped lanes nor adequate shoulder width along the streets suitable for safe bicycle travel.

As part of the Highway 30 reconstruction project, a separate bicycle route is being developed adjacent to Highway 30 north of "E" Street. Completion of this bicycle project, will provide a continuos bicycle route along the entire length of the City. The new end-to-end bicycle facility should attract additional bicycle enthusiasts and increase the need for improvements along the City streets portion of the route.

Currently, there are no designated bicycle routes or facilities in the residential areas west of Highway 30. Residential growth is anticipated to continue to increase in this area, thus creating more automobile traffic and increasing the demand for designated safe bicycle routes. There is also a limited amount of public bicycle parking and storage around the City. Secure and convenient parking is needed to make bicycle travel a viable transportation alternative.

Pedestrian Transportation Needs

The Oregon Transportation Plan (OTP) identifies a set of principles and policies for pedestrian travel similar to those for bicycle travel. The principles generally state that urban areas should provide safe pedestrian facilities that provide for connectivity and convenient access to all major destinations. Figure 5.5 displays the City's pedestrian facilities in comparison to the area's major destinations. The figure reveals that the City currently has a limited amount of sidewalks and lacks a connected and continuous pedestrian system. Considerable improvements are needed to enhance pedestrian safety and if walking is to become a viable alternative for short distance automobile trips inside Columbia City.



Columbia City Transportation System Plan

Figure 5.5
Sidewalks and Pedestrian Paths

6.0 TRANSPORTATION SYSTEM ALTERNATIVES EVALUATION

The purpose of this section is to identify and evaluate an alternative that best meets the future transportation needs of the community. The previous section of the Transportation System Plan (TSP) identified future transportation needs and deficiencies. This section proceeds to evaluate a comprehensive list of multi-modal transportation projects designed to meet those future transportation needs.

The transportation system alternative evaluated in this section was developed with input from various relevant studies and plans (including ODOT's TSP Guidelines), stakeholder interviews, City staff, as well as information from the first public meeting. The following presents a description of the transportation system alternative analyzed as part of the TSP development process.

6.1 Description of the Alternatives

The Transportation Planning Rule (TPR) requires that a wide range of multi-modal transportation options be evaluated as part of the transportation system planning process. As a means to meet the requirements set forth by the TPR a total of two alternatives have been developed for evaluation. The following describe each of these alternatives.

No-Build Condition

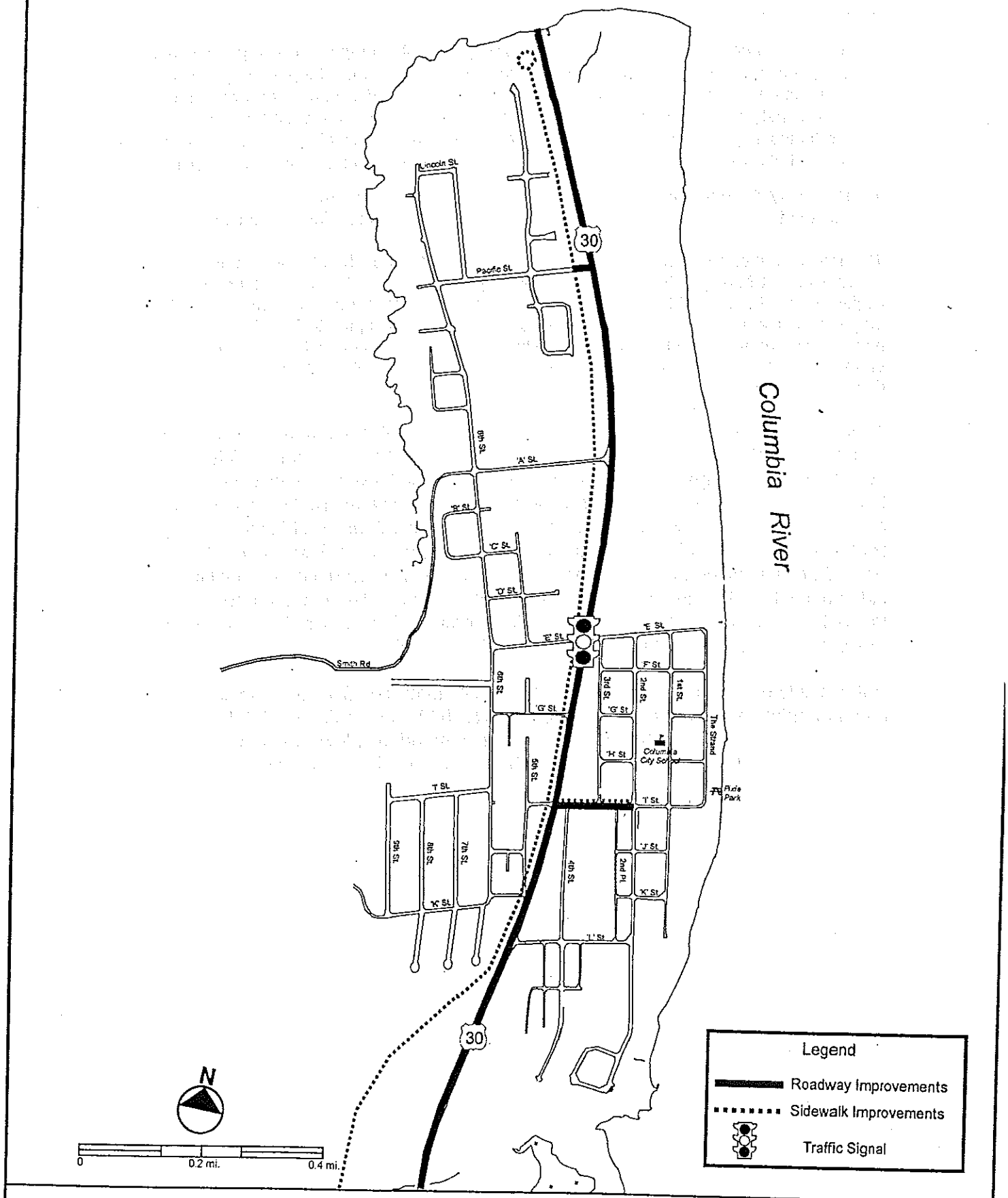
The No-Build condition is the base case alternative. It contains the existing transportation system coupled with all transportation improvements that are currently planned or currently under construction in Columbia City. The primary purpose of this alternative is to determine if the existing transportation system and the committed planned improvements are adequate to meet the goals and objectives of the TSP and to serve as a benchmark to which the other alternative can be compared.

The planned and programmed improvements included in this alternative include: the Highway 30 widening project, including the addition of bicycle lanes along the entire length of the project, the installation of a traffic signal at the Highway 30/"E" Street intersection, and the addition of a multi-use bicycle/pedestrian path adjacent to Highway 30 on the west side between "E" Street and the north City limits (See Figure 6.1). Also included in the No-Build alternative is the improvement of "I" Street from Second Street to Highway 30. This project is a programmed City improvement project and will contain a new sidewalk on the north side of the street. The primary purpose of this alternative is to serve as a benchmark to which the other alternatives can be compared.

Transportation System Alternative

The Transportation System Alternative contains a variety of multi-modal transportation projects to potentially meet the future transportation needs and the goals and objectives developed to guide development of the TSP. Included in the alternative are three types of transportation improvements:

- **Transportation System Management (TSM)** - TSM attempts to maximize the efficiency of the existing transportation system without adding additional roadway capacity. TSM projects can be characterized as being low-capital cost alternatives that can be implemented in a relatively short timeframe and that aim to make better use of existing facilities, either by operational changes or by better traffic management.



Columbia City
Transportation System Plan

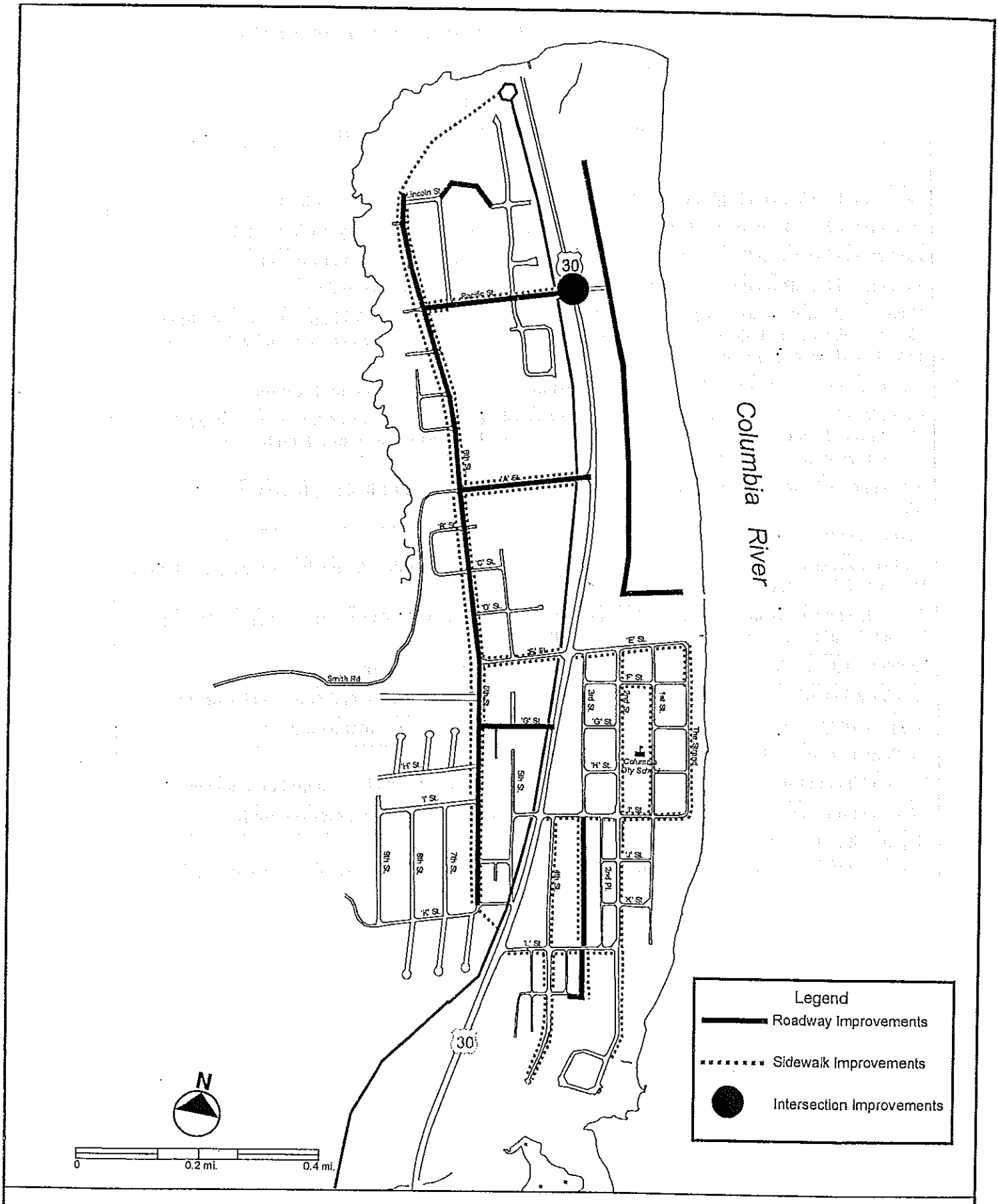
Figure 6.1
Improvements Included in the No-Build Alternative

- **Transportation Demand Management (TDM)** - TDM attempts to manage travel demand, and, hence, avoid adding more capacity (lanes) to the system. The primary purpose of the TDM alternative is to reduce the number of vehicles using the road system while providing a wide variety of mobility options. TDM projects can also be characterized as lower cost strategies, especially when compared to major roadway capacity improvements. Projects that support alternative modes (bicycles, pedestrians, transit) are also considered as part of TDM.
- **Roadway System Improvements** - Roadway system improvements attempt to meet future transportation needs through the use of additional roadways and increased capacity.

The Transportation System Alternative contains projects from each of the above elements. There is one TSM project included in the alternative: a truck deceleration and turning lane along Highway 30 at the Port of St. Helens entrance at the Pacific Street intersection. The TDM projects include a variety of bicycle and pedestrian projects designed to establish a connected network throughout Columbia City. Also included as a TDM element is the support for commuter vanpool service between Columbia City and Portland and the continued support of COLCO's dial-a-ride service.

There are also several street improvements included in the alternative. These projects primarily include the reconstruction of several existing streets to more safely accommodate anticipated traffic volume increases and bicycles. These include: Sixth Street, Pacific Street, "A" Street, and "E" Street. The alternative also includes the construction of two new roadways. These include the extension of Lincoln Street from Park Drive to Tahoma Street and the construction of an internal access road on the Port of St. Helens' property. The new road within the Port would connect all the industrial activity through the Pacific Street entrance and eliminate the need for heavy trucks to access via "E" Street. The individual projects included in the Transportation System Alternative are listed in Table 6.1 and graphically displayed on Figure 6.2.

Note: Table 6.1 has been revised by Planning Commission from the original recommendation and adopted as Ordinance No. 529. Tables 7.1 and 7.2 have been combined into Table 6.1 which includes all recommended sidewalk and street improvements. The original costs for each recommendation have also been deleted.



Columbia City
Transportation System Plan

Figure 6.2
Transportation System Alternative

Table 6.1
Transportation System Alternative

Project Description
Add right turn lane on Highway 30 at the Pacific Street intersection. (Completed)
Add one sidewalk on the east side of Second Street from "E" Street to River Club Estates
Add one sidewalk on the south side of "F" Street between First and Second Streets
Add one sidewalk on the west side of First Street between "F" and "I" Streets
Pave Third Street to local street standards – developer responsibility. Add one sidewalk on the west side of Third Street between "I" and "L" Streets, and one sidwalk on the east side between "L" and "M" Streets – developer responsibility
Add one sidewalk on east side of Fourth Street from the Rutherford Path to "I" Street
Complete the sidewalk on the south side of Pacific Street. Reconstruct Pacific Street to collector standards. Low priority now, but change it to collector status with one sidewalk on the south side when development demands
Reconstruct Sixth Street to collector standards. Add sidewalks on both sides, but do the west side first
Add one sidewalk on the south side of "L" Street
Add sidewalks on bothsides of "I" Street – (the sidewalk on the north side has been completed from Highway 30 to Second Street)
Add sidewalks on both sides of "E" Street on the west side of the Highway, and add one sidewalk on the south side of the street on the east side of the Highway
Reconstruct "A" Street to collector standards with sidewalks on both sides
Add bicycle parking at all City parks, civic buildings, multi-family zones, and commercial locations
Support vanpoolservice between Columbia City and Portland when demand dictates
Continued to support COLCO's dial-a-ride service.
Extend Lincoln Street from Park to Tahoma – low priority. This could be required of a developer
Construct a roadway internal roadway within the Port of St. Helens – **Port responsibility**
Replace the "L" Street Bridge – low priority
Study and develop a plan for The Strand providing for separation of vehicle and pedestrian traffic.

6.2 Evaluation of the Alternatives

Specific Goals and Objectives for the Transportation System Plan were developed early in the TSP process[1]. The intent of the goals and objectives is to give overall guidance to the strategies and specific projects that make up the Transportation System Plan. As a result, specific evaluation criteria were developed to ensure that the preferred alternative accomplishes the intent of the goals and objectives. The evaluation criteria are grouped and presented by each of the three goals. These goals include:

- **Transportation Goal** - Develop a transportation plan to manage future transportation needs and prolong the useful life of the existing transportation system.
- **Community Goal** - Develop a plan that supports the individual character of Columbia City.
- **Resources Goal** - Develop a plan that protects environmental resources and enhances the scenic beauty of the area.

Table 6.2 presents the evaluation results of each alternative using the evaluation criteria. Many of the evaluation indicators can be quantified with a good degree of precision (i.e., vehicle travel speeds or travel times) while others rely totally on subjective evaluation (i.e., impact on visual quality). In selecting a set of evaluation criteria, emphasis was placed on those that could be quantified. Because it was not always possible to use those types of criteria, an attempt was made to select measures that can be clearly defined and understood and which most effectively show differences between alternatives.

Evaluation Related to the Transportation Goal

The transportation goal specifies that the TSP should provide improvements to meet the future transportation needs, while still maintaining the existing transportation infrastructure. The following presents the results of the evaluation criteria:

Mobility

Average Speed by Functional Class

Average speed is measured by the travel demand model for vehicles in the peak hour. The average speed of vehicles on a roadway is an indication of that roadway's ability to serve its function. Higher level facilities should have higher travel speeds. Travel speed is directly influenced by physical design of the roadway and the traffic volume. Average speed data for each alternative is shown in Table 6.2. In 1996, the average speed is estimated at 48.4 mph for all arterials (Highway 30) and 24.3 mph for all collector roadways.

Under the No-Build Alternative average travel speeds are anticipated to slightly decline compared to 1996. This is primarily due to a significant increase in traffic between 1996 and 2016, and the addition of a traffic signal at "E" Street and Highway 30. However, the peak hour travel speeds do not indicate any level of congestion throughout Columbia City.

[1] The development of the goals and objectives as well as the evaluation criteria are discussed in Section 2 - Goals and Objectives

The improvements under the Transportation System Alternative would slightly increase average travel speeds compared to the No-Build Alternative. The construction of a truck deceleration/right turn lane at the Port's Pacific Street entrance combined with an internal access road inside the Port would reduce automobile and truck conflicts on Highway 30, thereby increasing average speeds on Highway 30. Also, this alternative would improve and widen many of the collector streets in Columbia City. These improvements should also slightly increase average travel speeds.

Access to the Transportation Disadvantaged

As part of the Highway 30 improvement project, a bicycle/pedestrian path is being constructed adjacent to Highway 30 on the west side. However, no improvements are planned to provide additional connections to the path or any other destinations in Columbia City. The Transportation System Alternative provides a Citywide system of bicycle and pedestrian connections. The pedestrian and bicycle network will allow for improved and safer travel for all Columbia City residents including the transportation disadvantaged. The Transportation System Alternative also contains improved transit services including Columbia City's participation in a commuter vanpool service to the Portland metro area.

Access to Various Transportation Users

The Transportation System Alternative provides a wide range of multi-modal improvements that should increase mobility for all types of transportation users. The alternative includes: bicycle and pedestrian improvements for recreational travel, roadway improvement projects that will increase automobile mobility and safety, as well as enhancements that will improve access to and within the Port of St. Helens.

Vehicle Miles of Travel (VMT)

Vehicle miles of travel, as a relative measure between alternatives, is an indication of how much demand is being generated for the use of automobiles on the transportation network. Within a given population, changes in the transportation network, activity locations, and alternative mode opportunities (e.g., transit, bicycle, pedestrian) can alter the total VMT on the network.

As shown in Table 6.2, 24,900 daily vehicle-miles were estimated for 1996 and were estimated to increase to 48,500 per day under the No-Build Alternative in the year 2016. This indicates a significant increase in population and the number of vehicles traveling on Columbia City's roadway system in the future. The Transportation System Alternative is not anticipated to significantly reduce VMT inside Columbia City. While the pedestrian and bicycle improvements are anticipated to increase recreational use, they are not expected to noticeably reduce automobile trips. The majority of Columbia City residents work and shop outside of the City, and alternative modes are often not conducive to eliminating these types of auto trips. However, successful implementation of a commuter vanpool service to Portland does have the potential to reduce single-occupant vehicle trips to and from Columbia City.

Availability of Transit

The Transportation System Alternative includes continued support and expansion of COLCO's dial-a-ride service as well as the City's participation in commuter vanpool service to Portland. Increased transit service will provide additional transportation options for commuters and the disadvantaged.

Maximize System Safety

One of the primary objectives under the transportation goals is to improve safety for all modes of travel in Columbia City. The Transportation System Alternative provides several improvements

that should reduce accidents and enhance safety within Columbia City. The completion of a network of separated sidewalks will enhance pedestrian safety, especially as traffic volumes increase on collector roadways. The addition of a deceleration/turning lane on Highway 30 for trucks entering the Port will reduce accident potentials at this location. Also, the widening of several highly-traveled roadways will more safely accommodate both bicycles and automobiles.

Level of Service (LOS)

Level-of-service is a concept developed to quantify the degree of comfort afforded to drivers as they travel through an intersection or roadway segment. Comfort is determined by various factors including travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles. Six grades (A through F) are used to denote the various operating conditions. "A" indicates minimal delay and no driver discomfort, and "F" indicates severe congestion and high level of discomfort (See Appendix B for a further description).

The level of service analysis for Columbia City indicates that there are no roadways or intersections that will be operating at unacceptable levels in the future. The improvements associated with the Highway 30 Project (development of five lanes on Highway 30, with turning lanes, and the extension of Pacific Street) solve many of the anticipated roadway capacity problems in Columbia City. Pacific Street adds an additional access to Highway 30 on the west side and reduces traffic demand on "A" and "E" streets helping the system's overall level of service. Additional traffic lanes on Highway 30 create sufficient capacity for forecast traffic. Turning lanes on Highway 30 help to increase the level of service at many of the key intersections in Columbia City.

Because the improvements associated with the Highway 30 Project solve many of the major level-of-service problems anticipated in the future, only minor (safety-related) roadway improvements were required in the Transportation System Alternative.

Evaluation Related to the Community and Resources Goals

The community and resources goal specifies that the future Columbia City transportation system support the individual character of the community and protect and enhance the scenic beauty of the area. This includes protecting the visual quality of the community; protecting the area's historical character; enhancing access to local parks, schools and community centers; and reducing noise and visual impacts along Highway 30. The following presents the results of the alternatives compared to the community and resources evaluation criteria:

The Transportation System Alternative provides a variety of improvements that would meet the objectives of the community and resources goals. First of all, the alternative does not include the construction of any new major roadways that could cause adverse impacts to the environment or visual quality of the community. The emphasis of the alternative is to upgrade and maintain the existing roadway system and improve bicycle and pedestrian modes that enhance the community's livability.

6.3 Evaluation Summary

The alternatives evaluation compared the Transportation System Alternative to the No-Build Alternative based on the criteria of the TSP goals and objectives. The analysis revealed the projects included in the Transportation System Alternative comply with the goals and objectives of the TSP. In summary, this alternative provides sufficient roadway capacity to meet the future vehicle needs of the community, provides increased opportunity for the usage of alternative modes (bicycles, pedestrian, and transit), improves safety for all modes, and protects and enhances the character of Columbia City. The Transportation System Alternative has been

selected as the preferred alternative and will be included as part of the Columbia City Transportation System Plan.

Table 6.2
Evaluation Criteria Matrix

EVALUATION CRITERIA	1996	2016 ALTERNATIVES No-Build	2016 ALTERNATIVES Transportation System	
TRANSPORTATION GOAL				
MOBILITY				*% change from No-Build*
Average Speed (mph) by Functional Class				
Arterials (Highway 30)	48.8	47.2	47.6	0.8%
Collectors	24.3	23.3	23.6	1.3%
Access to Transportation Disadvantaged	o/+/-	o	+	
Access to Various Transportation Users	o/+/-	o	+	
(Commerical, commuter, residents, recreational)				
VEHICLE MILES OF TRAVEL (VMT)				*% change from No-Build*
Total VMT (thousand vehicle-miles/day)	24.9	48.5	48.5	0.0%
VMT Per Capita (miles/day)	18.4	18.0	18.0	0.0%
VMT by Functional Class (thousands per day)				
Arterials (Highway 30)	21.9	43.3	43.3	0.0%
Collectors	3.0	5.2	5.1	-1.9%
AVAILABILITY OF TRANSIT				
Level of Community-wide Transit Service	o/+/-	o	+	
Level of Transit Service for Transportation Disadvantaged	o/+/-	o	+	
MAXIMIZE SYSTEM SAFETY				
Addresses Safety Concerns from Analysis & Public Input	o/+/-	+	++	
LEVEL-OF-SERVICE (LOS)				
Percentage of Miles in system by LOS by Functional Class				
Highway 30				
LOS B or better	100.0%	100.0%	100.0%	
LOS C or worse	0.0%	0.0%	0.0%	
Minor Arterials & Collectors				
LOS B or better	100.0%	100.0%	100.0%	
LOS C or worse	0.0%	0.0%	0.0%	
Key Intersections				
Highway 30 & "L" Street	"A"	"A"	"A"	
Highway 30 & "I" Street	"A"	"B"	"B"	
Highway 30 & "E" Street	"B"	"B"	"B"	
Highway 30 & "A" Street	"B"	"B"	"B"	
Highway 30 & Pacific Street	NA	"B"	"B"	
6th Street & Pacific Street	"A"	"A"	"A"	
6th Street & "A" Street	"A"	"A"	"A"	
6th Street & "E" Street	"A"	"A"	"A"	
2nd Street & "E" Street	"A"	"A"	"A"	
2nd Street & "I" Street	"A"	"A"	"A"	

Table 6.2
Evaluation Criteria Matrix

EVALUATION CRITERIA	1996	2016 ALTERNATIVES	
		No-Build	Transportation System
COMMUNITY GOAL			
ACCESSIBILITY TO DIFFERENT MODES AND TO VARYING LEVELS OF DESTINATIONS			
Level of Access to Neighborhoods (Pedestrians, bikes, autos, & transit)	o/+/-	o	+
Level of Access to Community	o/+/-	o	+
AVAILABILITY OF TRANSIT			
Level of Community-wide Transit Service	o/+/-	o	+
Level of Transit Service for Transportation Disadvantaged	o/+/-	o	+
MINIMIZATION OF LAND USE IMPACTS			
Supports Land Use Plans	o/+/-	o	+
RESOURCE GOAL			
MINIMIZATION OF ENVIRONMENTAL IMPACTS			
Minimizes Impact on Significant Natural & Cultural Features *(Natural areas, wetlands, historic/cultural resources, schools, parks, & cemeteries)*	o/+/-	o	-
Minimizes Visual and Aesthetic Impacts	o/+/-	o	-

+	Positive Impact
o	No discernable change
-	Negative Impact

7.0. TRANSPORTATION SYSTEM PLAN

This section presents the Transportation System Plan (TSP) for the City of Columbia City. This TSP presents project improvements and policies towards achieving the goals and objectives outlined in Section 2.

The TSP comprises all the improvements included in the Transportation System Alternative evaluated in Section 6. This alternative has been identified as the "Preferred Alternative," which best represents the overall goals and objectives of the TSP. The preferred alternative recommends $3.5 million in transportation improvements over the next 20 years.

The TSP is divided into 5 different elements: These include:

1. Street System Plan
2. Pedestrian Plan
3. Bicycle Plan
4. Transit Plan
5. Air/Rail/Water/Pipeline Plan

The following describes the recommended projects and policies for each transportation element of the Columbia City transportation system.

7.1 Street System Plan

The Street Plan identifies the roadway alternatives that are necessary to safely and efficiently serve the vehicular needs of the community over the next 20 years. It has been determined that the roadway improvements associated with the Highway 30 improvement project will provide the additional roadway capacity necessary to meet the increased traffic needs of the community for the next 20 years. Therefore, the primary objectives of the Street Plan are to maximize the efficiency and improve safety of the existing roadway system. The protection of the health, safety and welfare of the citizens of Columbia City shall be an important factor in the transportation decision making process in that these decisions have a direct impact on future generations. In addition, the unique and rural character of Columbia City east of Highway 30 is important and should be preserved whenever reasonably possible.

Roadway Improvements

The recommended project improvements and future Columbia City roadway network are illustrated in Figure 7.1. There is a limited amount of new roadway construction included in the recommended Street Plan. The only recommended major new street improvements are the extension of Lincoln Street from Park Drive to Tahoma Street and a local access road within the Port of St. Helens. The road within the Port will enable heavy truck traffic to access the Port's industrial sites through the Pacific Street entrance, thus reducing the amount of traffic entering via "E" Street, a local City street.

The City should also protect the corridor rights-of-way along Sixth Street, north of Lincoln Street, and Fourth Street at the south end of the City for future roadway expansion. Currently these two areas are outside of the Columbia City Urban Growth Boundary. This area of Sixth Street should be preserved as a possible future collector extension for potential new development to the north, and Fourth Street could be used as a potential additional connection between Columbia City and St. Helens.

Also, the City should work with the County to ensure that the right-of-way along Smith Road is protected. If Columbia City expands its Urban Growth Boundary to the west and development

occurs in this direction, Smith Road will have considerably larger traffic volumes and will need to be classified as a City collector and be upgraded to collector standards.

The primary focus of the recommended Street Plan is to preserve and maintain Columbia City's existing roadway system. It is forecast that traffic volumes will nearly double over the next 20 years. To safely accommodate the anticipated increase in traffic, many of the City's collector streets will need to be upgraded and reconstructed. The recommended street improvements include:

- Improve Sixth Street from Lincoln Street to "K" Street. Improve the road to include sidewalks and to safely accommodate both automobiles and bicycles.
- Upgrade Pacific Street to current collector standards.
- Improve "A" Street to current collector standards.
- Add paved surface on Third Street between "I" and "M" Streets.
- Construct a deceleration/turning lane into the Port of St. Helens at Pacific Street. (Completed)
- Replace the "L" Street bridge over the Portland and Western Railroad to collector standards limited to two 12-foot vehicular travel lanes with one 5-foot sidewalk on the south side

Table 7.1 lists all the recommended improvements of the Street System Plan.

Table 7.1
Street Improvement Projects

Roadway Improvements	Travel Lanes	Roadway Class.	Sidewalk Width	Parking	Estimated Cost
Construct a roadway within the Port of St. Helens	2	Local	None	Yes	$920,000
Extend Lincoln Street to Tahoma Street.	2	Local	5 ft.	Yes	$210,000
Reconstruct Sixth Street (from Lincoln Street to "K" Street)	2	Collector	5 ft.	Yes	$830,000
Widen Pacific Street	2	Collector	5 ft.	Yes	$40,000
Reconstruct "A" Street	2	Collector	5 ft.	Yes	$150,000
Reconstruct Third Street (from "I" Street to "M" Street)	2	Local	5 ft.	Yes	$230,000
Replace the "L" Street Bridge	2	Collector	5 ft.	No	$500,000
TOTAL					**$2,880,000**

Note: Does not include the cost for sidewalks.

Functional Classification System

Streets perform various roles in a community, ranging from carrying large volumes of primarily through traffic to providing direct access to abutting properties. These functions are often conflicting, and a hierarchical classification system is needed to determine the appropriate function and purpose of each roadway.

Figure 7.2 displays the recommended functional classification system plan for the City of Columbia City. This plan recommends three roadway classifications. These include:

- **Arterials** - These facilities carry the highest volumes of through traffic and primarily function to provide mobility and not access. Arterials provide continuity for intercity traffic through the urban area and are usually multi-lane facilities. The only facility identified as an arterial in Columbia City is Highway 30.
- **Collector Streets** - These streets provide both land access and movement within residential, commercial, and industrial uses. These streets gather traffic from local roadways and serve as connectors to arterials. The following streets are identified as collectors:

  ⇒ Second Street
  ⇒ Sixth Street
  ⇒ "A" Street
  ⇒ "E" Street
  ⇒ "I" Street
  ⇒ "L" Street
  ⇒ Pacific Street

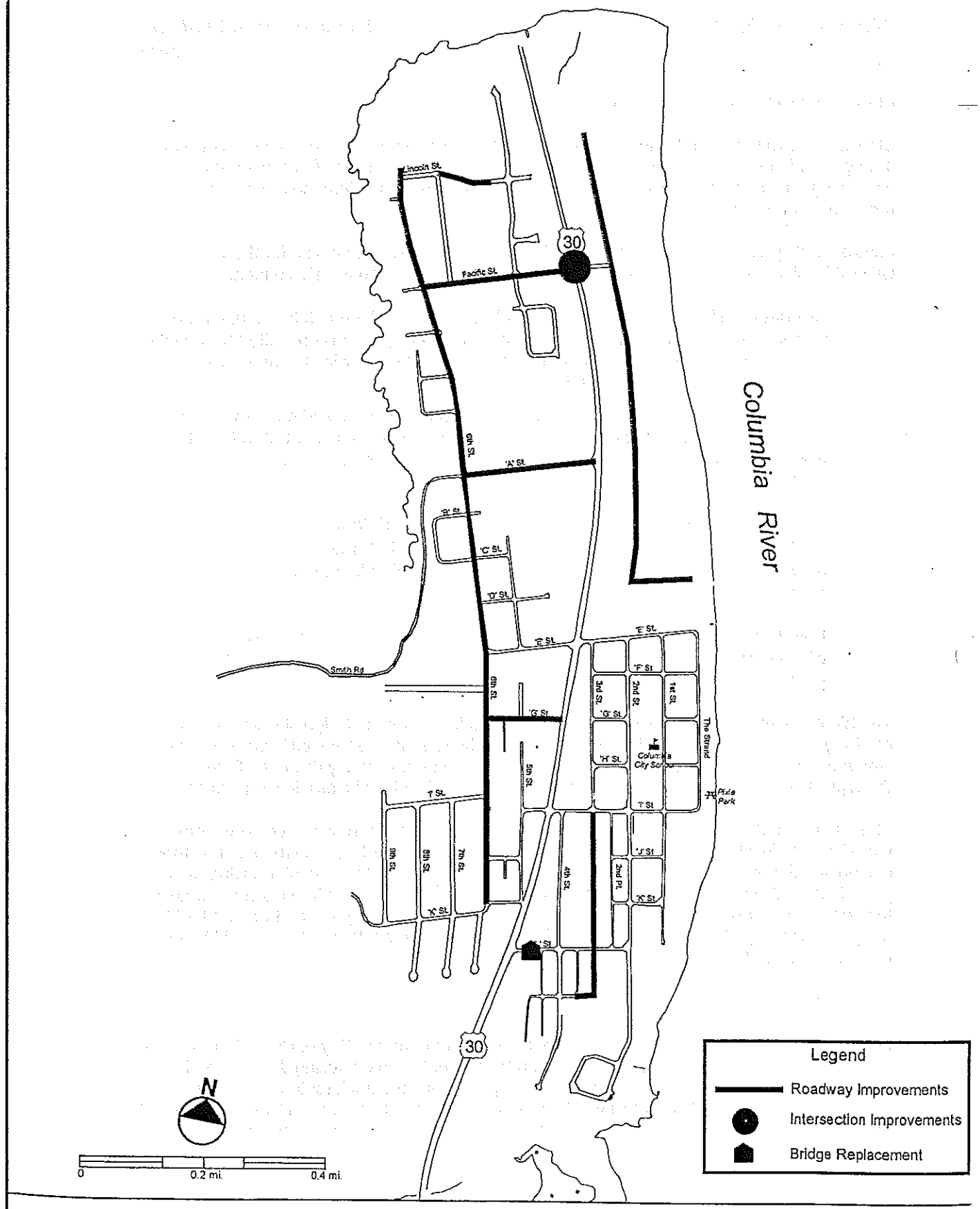
- **Local Streets** - These streets provide land access to residential and other properties within neighborhoods and generally do not intersect any arterial routes. All remaining streets are identified as local streets.

The hierarchical functional classification system requires different design standards for each roadway classification. For instance, major thoroughfare routes require different access control standards, paving requirements, right-of-way widths, and traffic safety devices. Figure 7.3 shows the typical design standards for each roadway under the functional classification system.

The suggested design standards are to be used as a guideline for roadway construction, including the development of new roads and the reconstruction of existing roads. The roadway design standards are established not only to ensure consistency throughout the City, but also to provide flexibility for unique and special situations. For example, 1) future improvements around the school may vary from the design standards to preserve existing mature trees and address unique on-street parking opportunities, and 2) future improvements to "L" Street will be designed in accordance with the size of the "L" Street bridge.

Truck Route Plan

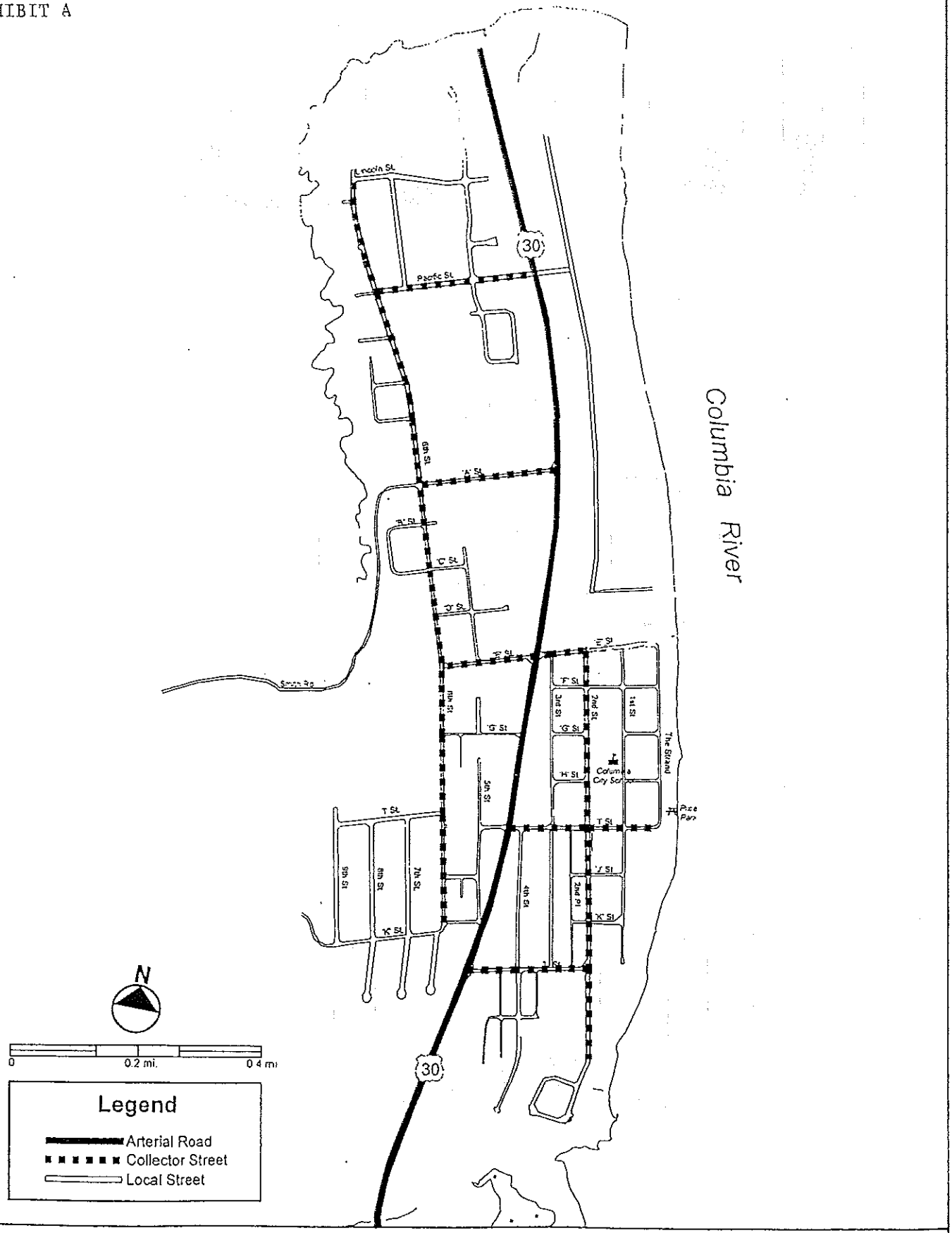
Figure 7.4 shows the recommended designated truck route for the City of Columbia City. The route is designed to limit heavy truck traffic on local streets, thus reducing damage and improving safety along neighborhood streets. Specifically, the truck route would connect the Port of St. Helens with Highway 30 via the Port's Pacific Street entrance. Heavy trucks would only be permitted on other streets to make local deliveries. (This would replace the old truck route through the City.)



Columbia City Transportation System Plan

Figure 7.1
Recommended Street Plan

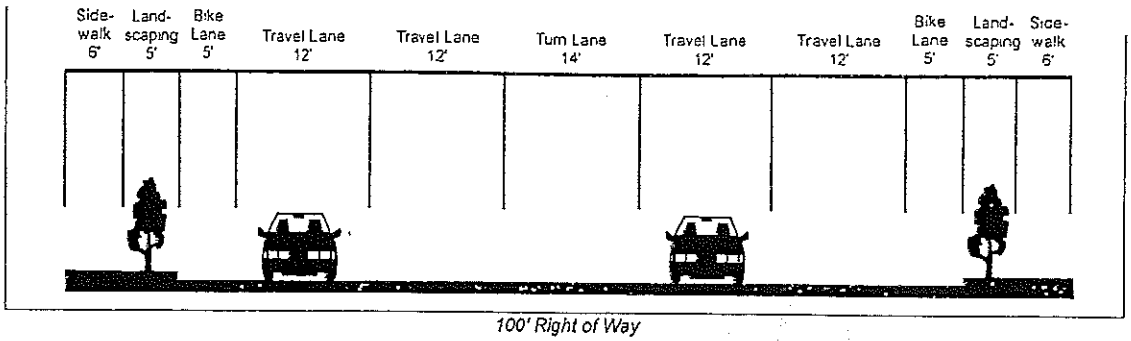
EXHIBIT A



Columbia City
Transportation System Plan

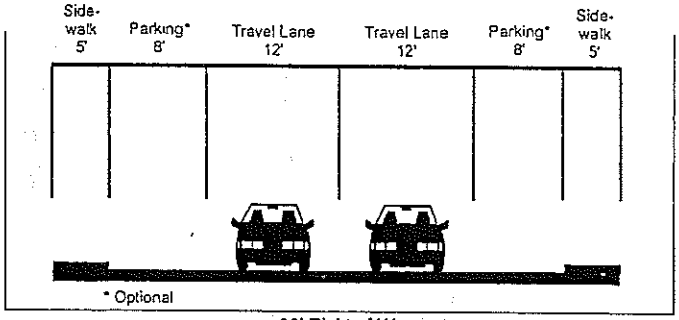
Figure 7.2
Functional
Classification Plan

Arterial (Highway 30)



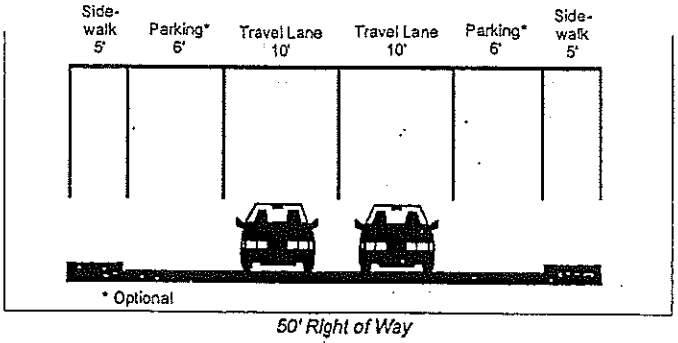
100' Right of Way

Collector

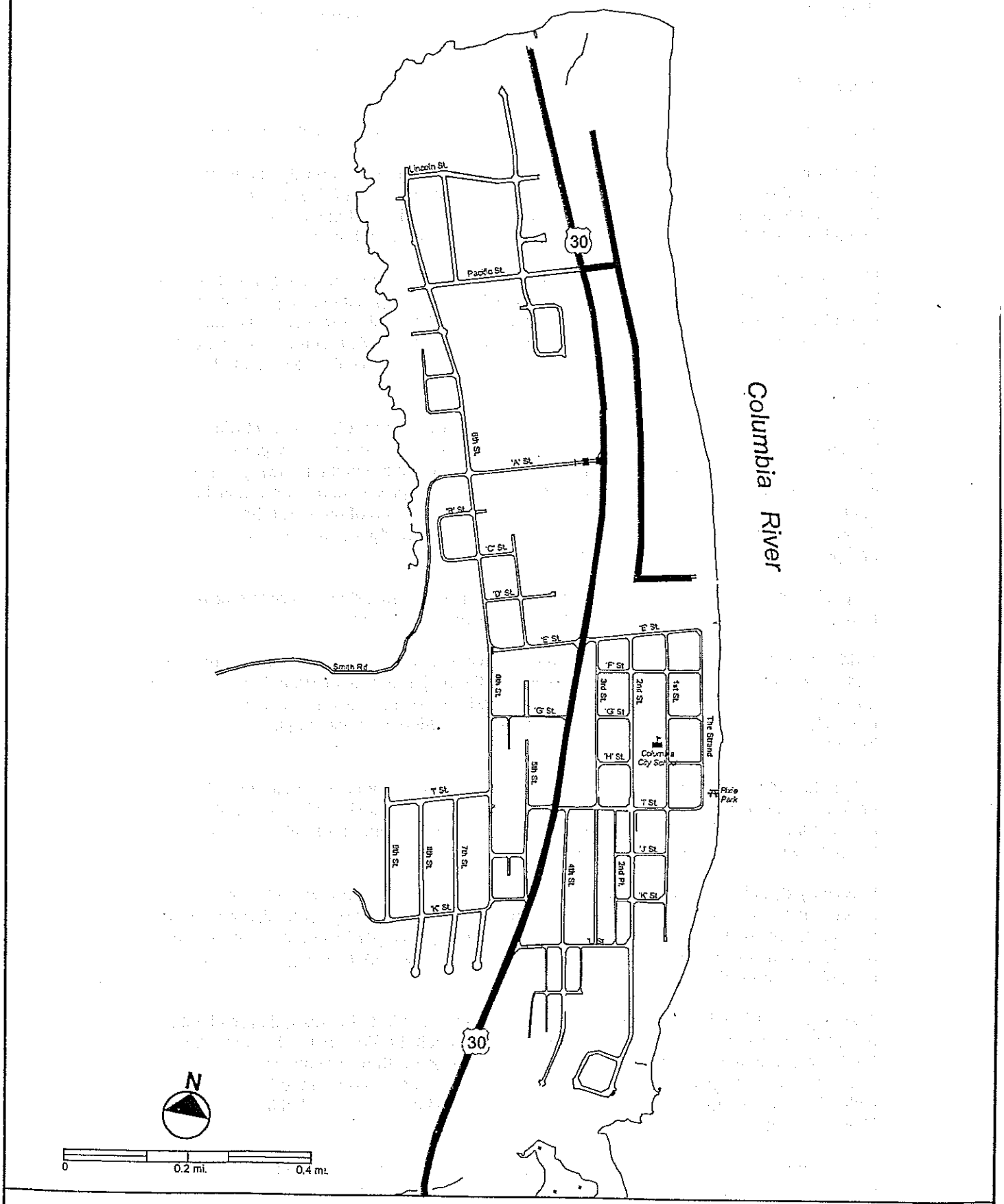


60' Right of Way

Local Streets



50' Right of Way



Columbia City Transportation System Plan

Figure 7.4
Recommended Truck Routes

Access Management Plan for Highway 30

The following is from the "Highway 30 Access Management Study" DEA, June 1995.

The primary goal of an access management program is enhanced mobility and improved safety by limiting the number of traffic conflicts. Minimizing the number of driveways and locating driveways to minimize interference between each other and street intersections helps to minimize conflict points and maintain the function of the principal roadway.

Limiting access to higher class roadways is the foundation of access management planning. Where reasonable alternatives exist, the access to an abutting property is generally less disruptive to overall traffic flow if made to and from the lower class roadway. Locating traffic signals to emphasize traffic flow is also an important principle. Appropriate spacing of traffic signals and their interconnection helps to enhance progressive traffic movement along the corridor.

Traffic Signals - As part of the US Highway 30 improvement project, a new traffic signal at "E" Street has been installed. Future traffic signals should be appropriately placed and coordinated to enhance the progressive movement of traffic along the Highway. In coordination with ODOT, all existing and future traffic signals along the project corridor are anticipated to operate under an 80-second cycle length, including 37 seconds of green for the major street through movement and the remaining total of 43 seconds assigned to cross-street movement and protected left turns from the highway.

A spacing of approximately 2,650 feet (0.50 miles) is recommended to enable efficient traffic flow in the corridor which is signed for a travel speed of 45 to 55 mph.

A driveway should be considered for signalization only if installation of the signal meets warrants and does not interfere with traffic progression on the major arterial or will not interfere when the major street system reaches capacity conditions when the area becomes fully urbanized. This normally means that signalization should be limited to driveways meeting the uniform signalized intersection spacing.

When the public street or high volume access driveway does not conform to the selected uniform spacing criteria, consideration of signalization should be based upon a traffic engineering study which demonstrates that the signal will not interfere with efficient traffic progression for peak and off-peak conditions.

Driveway Spacing - The regulation of minimum spacing of driveways and public street intersections along the highway reduces the frequency of conflict by separating adjacent, basic-conflict areas and limiting the number of basic-conflict points per length of highway. An additional effect is that driveway vehicles will be delayed less by standing queues at signal-controlled intersections.

The project corridor is characterized by a railroad on one side of the road; thereby limiting driveway access to the other side of the road. As a result, traffic conflicts between driveway turning movements are lower than a comparable highway with residential and commercial driveway accesses provided on both sides of the road. For sections of the highway through Columbia City, the minimum access spacing of 800 feet as recommended in the Oregon Highway Plan should be utilized in the future.

Driveway Widths - Driveways are currently not clearly demarcated along the project corridor, due to the absence of curbed sections in certain segments. A policy on maximum driveway widths is aimed at reducing conflict areas by defining the maximum width of driveway openings on the highway. The maximum width is a function of the types of vehicles using a facility as well

as the nature of the developments to be served. Consideration must be given to highway operating conditions, volume, geometry, sight distance, angle of intersection, and alignment (vertical and horizontal).

A 20-foot standard driveway width is recommended for single-unit residential developments, with a 16-foot minimum allowable width and a 24-foot maximum allowable width. For multi-family residential, commercial, and industrial developments, a 36-foot standard width and a 40-foot maximum width is recommended. The driveway widths in the construction plans for highway improvements along the project corridor are in agreement with the standards recommended above.

Number of Driveways per Property Frontage - Minimizing the number of driveways per length of highway reduces the number of basic conflict points, the frequency of conflicts, and the severity of conflicts. There are many different ways to minimize the number of driveways per length of the highway. The following strategies are recommended for the project corridor:

- Limit the number of driveways per property frontage to a single drive, unless the frontage exceeds ¼ mile.
- Restrict access from neighborhood commercial development located on the corner of a public street intersection to access on the cross-street only.
- At the permit-authorization stage, encourage adjacent property owner to construct joint-use driveways in lieu of separate driveways. Driveway pairs with more than 50 vehicles using each driveway per hour will be good candidates for this technique.
- At the permit-authorization stage, consolidate existing access to commercial sites whenever separate parcels are assembled under one purpose, plan entity or usage.
- Designate the number of driveways permitted to each existing property before development, and deny additional driveways regardless of future subdivision of that property.

Driveway Sight Distance - Adequate intersection sight distance must be provided at all existing and future signalized and unsignalized intersections, including driveways. Access driveways should not be permitted where the sight distance is not adequate to allow a motorist to maneuver to come to a safe stop.

Access driveways should be designed such that they provide adequate intersection sight distance, per AASHTO guidelines. The guidelines recommend minimum sight distances for a typical vehicle (e.g. passenger car, truck, etc.) to either safely cross the highway or to safely merge with the highway traffic when turning left or right from a stopped position at the access point. The sight distance requirements based on roadway vehicle travel speeds are listed in Table 8 in the chapter on Recommended Policies and Ordinances.

Driveway sight distance can be increased by eliminating or altering physical and geometric barriers, such as by altering roadway alignment (horizontal and vertical curves) and by eliminating physical obstructions (shrubbery, fencing, walls, etc.).

Require Adequate Internal Design and Circulation Plan - An adequate internal design and circulation plan is recommended for all site developments having direct access to the highway. Although this technique can be applied to existing developments, it is recommended for application mainly during the site plan approval and access permitting processes.

New site developments and redevelopment of existing sites having direct access to the highway should be designed such that they provide adequate handling of limited parking and maneuvering areas, minimize internal interference by supplying storage areas to egress movements, and distribute ingress vehicles into the main circulation patterns with minimal hesitation and confusion. The following list reflects recommendations by which this technique can be properly applied.

- General location of driveway entrances should be approved by permitting agencies before the major effort toward maximum capacity planning begins.
- Wherever possible, the long sides of rectangular parking areas should be parallel.
- Curved, triangular, and other irregularly-shaped parking areas should be avoided.
- Driveway throats should be designed long enough to allow free movement on and off of the highway. For developments generating more than 500 trips per day, the depth of the driveway throat should be determined based on a site traffic impact study.

Install Visual Clues of the Driveway - Visual clues of driveways help reduce the severity of driveway conflicts. This is accomplished by increasing driver perception time and thereby limiting maximum deceleration requirements of highway vehicles.

Driveways to all new developments and existing sites being redeveloped should be designed such that they are readily visible to the approaching drivers in the through traffic lanes. Visual clues should provide information as to both the location and the geometrics of the driveway to the driver. The driver should be able to locate and identify the driveway at a distance that is at least equal to the decision sight distance (the perception-reaction distance plus the distance required to maneuver to a turn at a speed of 10 mph or less).

If circumstances exist such that adequate sight distance cannot be provided by removing obstructions or relocating the driveway, advance warning will be required. Consideration must be given to the geometric and grace layout, traffic level, and roadway type. Recommended visual cues include flashing beacons, warning lights, contrasting pavements, reflectorized treatments, driveway lighting, or any combination of the above. Installation of warning devices must adhere to recommendations outlined in the Manual on Uniform Traffic Control Devices (MUTCD).

7.2 Pedestrian System Plan

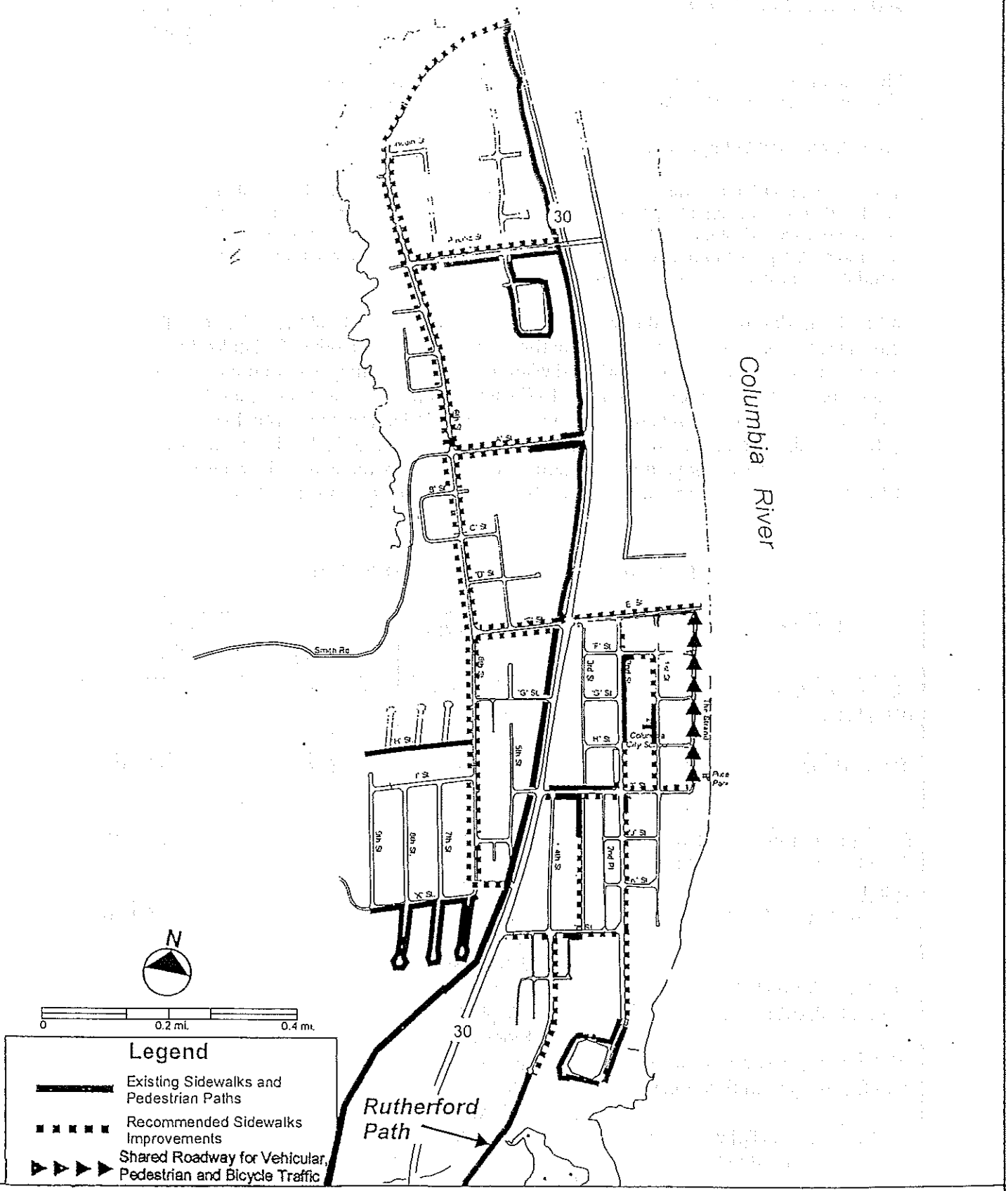
One of the primary transportation objectives of this TSP expresses that Columbia City should promote alternative modes of travel and improved connections to these modes as a means of reducing vehicular trips within the community. A principal means of meeting this objective is to improve the City's pedestrian network.

Walking is the most basic form of transportation. Everyone is a pedestrian. Whether a traveler rides a bus or takes an automobile, each trip begins and ends with a walk. Providing a safe and convenient pedestrian network is essential for all residents of Columbia City and is needed to maintain the City's high level of livability.

If Columbia City is to meet its goals and objectives, it must emphasize walking as a major means of travel. To encourage more walking, the City must:

- **Provide a continuous network.** An intermittent pedestrian system that strands pedestrians at the end of unfinished sidewalks or forces them into hazardous street crossings will discourage walking.
- **Provide a safe walking environment.** A pedestrian environment that is perceived as unsafe will deter people from walking.
- **Ensure pedestrian-oriented urban design.** Design of both existing and future commercial and residential sites must give access by pedestrians equal weight with access by automobiles.

EXHIBIT B



Columbia City Transportation System Plan

Figure 7.5 Pedestrian Plan

The following describes the Pedestrian Plan for Columbia City. Included are various pedestrian elements to ensure that walking becomes a more viable alternative.

Pedestrian Facility Improvements

The Pedestrian Plan recommends a continuous sidewalk system in good repair that connects neighborhoods with schools, parks, community centers, and the waterfront. Table 7.2 lists the recommended pedestrian facility improvements, and Figure 7.5 displays the entire recommended pedestrian network. Specifically, the Plan calls for continuous sidewalks on all arterial and collector streets in Columbia City.

It has been determined that it would be quite expensive to retrofit the existing collector streets with concrete sidewalks and curbs. Currently, the majority of all collector streets in Columbia City are asphalt surfaced without curbs. To safely accommodate both pedestrians and automobiles in a cost-effective manner, it is recommended that existing collector roadways be upgraded with extruded curbs and asphalt sidewalks. (The Planning Commission recommends the use of concrete instead of asphalt.) However, when roadways are reconstructed, such as the recommendation with Sixth Street, it is suggested that concrete curbs and sidewalks be implemented.

Table 7.2
Pedestrian Facility Improvement Projects

Roadway Segment	Sidewalk Type	Sidewalk Width	Estimated Cost
First Street from "F" to "I" Street (West Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$4,000
Second Street (East Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$25,000
Fourth Street from the Rutherford Path to "L" Street (East Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$12,000
"L" Street (South Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$9,000
"I" Street from Highway 30 to Second Street (Both Sides)	Extruded Curb & Asphalt Sidewalks	5 ft.	$4,000
"I" Street from Second Street to The Strand (North Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$6,000
"E" Street from Highway 30 to The Strand (North Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft.	$9,000
"E" Street from Sixth Street to Highway 30 (Both Sides)	Extruded Curb & Asphalt Sidewalks	5 ft.	$15,000

Roadway Segment	Sidewalk Type	Sidewalk Width	Estimated Cost
"F" Street from First Street to Second Street (South Side Only)	Extruded Curb & Asphalt Sidewalks	5 ft	$3,000
* "A" Street (Both Sides)	Concrete, abutting the curb.	5 ft.	$33,000
* Sixth Street (Both Sides)	Concrete, abutting the curb.	5 ft.	$247,000
* Third Street between "I" and "M" Streets (West Side Only)	Concrete, abutting the curb.	5 ft.	$34,000
* Pacific Street (North Side Only)	Concrete, abutting the curb.	5 ft.	$26,000
Pedestrian Path from Sixth St./"K" St. intersection to sidewalk on Hwy 30	asphalt	6 ft.	$10,000
Pedestrian Amenities (benches) along Highway 30 Path	---	---	$1,000
TOTAL			**$438,000**

* To be completed as part of the road reconstruction project.

Sidewalk Standards and Policies

To enable a connected and complete pedestrian system, sidewalks must be considered at the inception of transportation projects and incorporated into the total design. The City's current street standards require new sidewalks in residentially-zoned areas to be five feet in width and shall abut the curb.

It is recommended that the City require curbs and five-foot sidewalks on all new roadway and reconstruction projects as identified in Table 7.2 and on Figure 7.5 contained in this plan, and require curbs and five-foot sidewalks on all new roadway developments not identified in this plan and ensure that sidewalks provided on development property be connected to the external pedestrian system..

It is also recommended that striped crosswalks be marked across Highway 30 at "E" Street, "I" Street, and "L" Street to alert motorists of pedestrians. Allowing people to cross busy streets as freely as possible is important in maintaining a pedestrian-friendly environment.

7.3 Bikeway System Plan

The purpose of the Bikeway System Plan is to develop a continuous, safe, and interconnected network of bicycle routes throughout Columbia City. While all roadways and streets can be used as bikeways, designated routes along bicycle-friendly streets and/or separated bicycle lanes on busy streets can improve safety as well as increase bicycle use.

Figure 7.6 presents the recommended bicycle plan for Columbia City. The bicycle plan intends to create a recreational loop throughout the City, connecting the existing Rutherford Road Parkway bicycle trail with the planned Highway 30 bicycle trail (replaced as part of the Highway 30 improvement project).

The plan calls for keeping the current designated bicycle route on the east side, from the Rutherford Road Parkway to the Highway 30/"E" Street intersection along existing City streets. From this intersection, the designated bike route would travel along the planned Highway 30 trail to its termination point near McBride Creek. The plan then recommends the construction of a bike trail connecting the Highway 30 trail to Sixth Street. The bike route would then travel along Sixth Street to "E" Street completing the loop.

Separated striped bicycle lanes are not being recommended on city streets designated as bicycle routes. In accordance with the Oregon Bicycle Plan, the designated city streets can safely accommodate both bicycles and automobiles within the same travel lane. However, it is being recommended that Sixth Street be improved and widened to manage both increased automobile and bicycle traffic.

Bicycle Facility Improvements

The bicycle plan recommends several improvements to the City's bicycle networks and system. The improvements and their estimated costs include:

- New bicycle trail connecting the Highway 30 trail to Sixth Street (estimated cost = $34,000)
- Added bicycle parking at all city parks, civic buildings, schools, and commercial locations (estimated cost = $2,000)

7.4 Public Transportation Plan

Intracity Transit

The City of Columbia City should continue to support COLCO's (Columbia County Transportation) dial-a-ride service throughout Columbia County. COLCO provides transportation services to the disabled and transportation disadvantaged. The City should actively participate and support any expansions and added service improvements by COLCO.

Intercity Transit

A recent transit feasibility study[1] has determined that there is not enough demand to support a commuter fixed-route bus service from St. Helens and Columbia City all the way into downtown Portland. The demand for travel from the St. Helens/Columbia City area to Portland is high but diffused both in terms of destination and time of travel. Instead, the study recommends that a "Vanpool Service" be implemented between St. Helens/Columbia City and Portland. A vanpool service is different from fixed-route bus service in that the driver is a volunteer who is also commuting to the destination. The driver is unpaid but usually does not contribute to the costs of the vanpool. Vanpooling is also different from fixed-route bus service in that it can be more responsive to individual needs and schedules. Riders may be picked up at various locations and dropped off at one or more destinations.

The transit feasibility study recommends that this service be expanded to an all-day service, with connections to the St. John's Transit Center. St. Johns is a major terminus and transfer point for several Tri-Met lines and should help to provide better connectivity. The all-day transit service would be an important complement to the vanpool program. Commuters are more easily attracted to vanpools if some kind of transit also exists, because passengers can be assured of an alternative if they need to leave work late or early.

[1] Transit Feasibility Study, U.S. 30 Corridor, David Evans and Associates, August 1996.

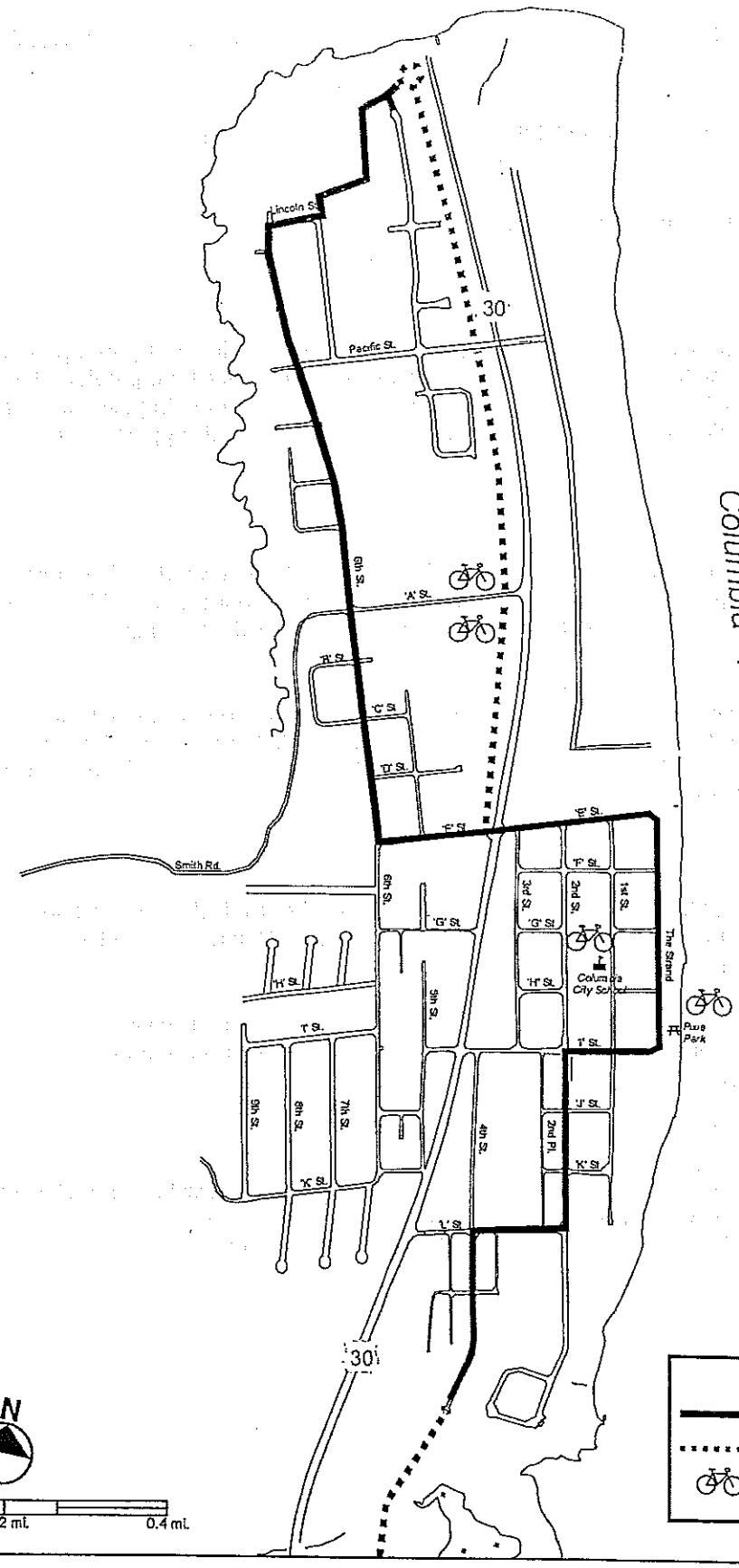


Figure 7.6
Recommended Bicycle Plan

Columbia City should support the establishment of a vanpool service to Portland and provide shelters and bicycle parking at specific transit stops.

7.5 Air/Rail/Water/Pipeline Plan

Air Transportation

The nearest passenger air service is provided by Portland's International Airport, approximately 50 minutes driving time from Columbia City. General aviation services are provided by the Scappoose Industrial Airpark. This plan recognizes the importance of both passenger, freight and general use aviation to the community and encourages continued support and usage by the City of Columbia City.

Rail Transportation

Rail freight service in Columbia City is provided by a one-track line owned and operated by the Portland and Western Railroad. The "Port Access Branch Line" connects the cities of Astoria, Clatskanie, Rainier, Columbia City, St. Helens, and Scappoose with the Burlington Northern's mainline in Portland.

The System Plan recognizes the importance of rail freight service to the City of Columbia City and the Port of St. Helens. The City should help support efforts to maintain rail service to Columbia City. The City should also work with the Portland and Western Railroad to improve safety at all railroad crossings.

Water Transportation

Currently, water freight transportation is provided by the Port of St. Helens' operating from Columbia City. The Plan supports the efforts of the Port of St. Helens to attract waterborne activity via the Columbia River.

Recreational water transportation is provided by the Columbia River. The City of Columbia City should continue its efforts to provide more public access to the river, including the construction of a fishing dock at "H" Street.

Pipeline Transportation

A high-pressure gas transmission line, owned and operated by Northwest Natural Gas, currently runs through Columbia City. The Plan encourages the continued use and support of this pipeline and any additional pipelines that could be developed as a means of reducing the number of freight truck trips through the community.

8.0 TRANSPORTATION SYSTEM PLAN IMPLEMENTATION

This section presents two necessary steps towards implementing the transportation system plan recommendations. Included are: 1) the project implementation plan, which outlines the prioritization and general timing for project completion, and 2) draft ordinance recommendations and changes to assist in implementing the TSP.

8.1 Project Implementation Plan

Each of the alternatives was developed to address the transportation needs of Columbia City over the next 20 years. However, because of funding constraints, the City will need to disperse the improvements over the 20 year period. The following is the recommended implementation plan for individual projects over the next 20 years. The projects are divided into two phases, first decade and second decade. The projects outlined in the first decade have been listed as higher priority projects based on immediate need identified through the analysis process and citizen input.

Project Prioritization

First Decade	Capital Cost
• Construct a roadway within the Port of St. Helens	$920,000
• Reconstruct Sixth Street from Lincoln to "K" Street	$830,000
• Intersection Improvements at Pacific Street and Highway 30	$48,000
• Widen Pacific Street	$40,000
• Widen "G" Street	$20,000
• Add Sidewalks on Sixth Street	$247,000
• Add sidewalks on Second Street	$58,000
• Add sidewalks on "L" Street	$14,000
• Add sidewalks on "I" Street	$26,000
• Add sidewalks on "E" Street	$36,000
• Add sidewalks on Fourth Street from Rutherford Path to "I" Street	$23,000
• Add sidewalks on Pacific Street (north side)	$26,000
• Add sidewalks from Sixth St./"K" Street intersection to Highway 30	$10,000
• Add benches along Highway 30 trail	$1,000
• Add bicycle parking at all City parks, civic buildings, and schools	$2,000
First Decade Total Costs	***$2,301,000***

Second Decade	Capital Cost
• Replace the "L" Street bridge over the BN railroad	$500,000
• Extend Lincoln Street from Park Dirve to Tahoma Street	$210,000
• Reconstruct "A" Street	$150,000
• Reconstruct Third Street from "I" Street to "M" Street	$230,000
• Add Sidewalks on "A" Street	$44,000
• Add sidewalks on Third Street from "I" Street to "M" Street	$68,000
• Construct a bicycle trail connecting the Highway 30 trail to 6th St.	$34,000
Second Decade Total Costs	***$1,236,000***

8.2 Implementing Ordinance Recommendations

The Transportation Planning Rule (TPR) specifies that each local government in Oregon shall amend its land use regulations to implement the adopted transportation system plan. The following sections address specific requirements of the TPR related towards the implementation of the Transportation System Plan. Each section provides a summary of the TPR requirement, followed by proposed recommendations for the City of Columbia City to achieve each TPR objective.

TPR Requirement: OAR 660-12-045 (2) **- Land Use or Subdivision Ordinance regulations, to protect the function of transportation facilities, corridors, and sites.**

subsequent requirement

TPR Requirement: OAR 660-12-045 (2)(a) and (b) - Access Control Measures/ and Standards to Protect Future Operation.

Summary: Local governments shall adopt access control measures, which include; driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities and provide standards to protect future operation of roads, transitways, and major transit corridors.

Recommendation: Access management is important in maintaining efficient operation of a transportation system. For Highway 30, the City should continue to work with ODOT on implementing and adding to the City Code, the recommendations of the Highway 30 Access Management Study (See Section 7.1).

TPR Requirement: OAR 660-12-045 (3)(a) **- Land Use or Subdivision Regulations to provide for safe and convenient pedestrian, bicycle, and vehicular circulation.**

subsequent requirements

TPR Requirement: OAR 660-12-045 (3)(a) - Bicycle Parking

Summary: The rule requires bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots.

Recommendation: Currently, Columbia City's parking requirements do not include provisions for bicycle parking. Bicycle parking should be provided at transit stops, shopping centers, employment uses, and recreational destinations in pedestrian districts. Bike parking may be shared between uses but should be centrally located, easily accessible to building entries, and visible from streets or parking lots. For clarity, bicycle parking requirements should be tied to existing automobile parking stipulations. The following is recommended for provisions of bicycle parking in new developments:

Type of Development	Bicycle parking spaces required
• Single Family, Duplex, Triplex	None
• Multi-Family (4 units or more)	1 per unit
• Commercial Development	10% of vehicle parking
• Civic Uses	20% of vehicle parking
• Schools	8 spaces per classroom
• Industrial Development	5% of vehicle parking

TPR Requirement: OAR 660-12-045 (3)(b) - Safe and Convenient Bicycle and Pedestrian Access

Summary: Facilities providing safe and convenient pedestrian and bicycle access shall be provided within and from new subdivisions, planned developments, shopping centers, and industrial parks to nearby residential areas, transit stops, and neighborhood activity centers, such as schools, parks, and shopping. This shall include:

- Sidewalks along arterials and collectors in urban areas;
- Bikeways along arterials and major collectors;
- Where appropriate, separate bike or pedestrian ways to minimize travel distances within and between the areas and developments listed above.

Recommendations: The City currently does require the construction of sidewalks on new streets created through subdividing or partitioning or the upgrading of streets within the incorporated portion of Columbia City. The City should continue the policy that requires new sidewalks be constructed along all arterial and collector streets as well as local roads in new subdivisions.

Pedestrian routes should be located along or visible from streets and linked to local destinations and building entrances. Primary pedestrian routes should be bordered by residential fronts (rather than back yards), public parks, plazas, or commercial uses. Where street connections are not feasible, short pedestrian paths should provide connections between residential and retail areas. Routes through parking lots or at the rear of residential developments should be avoided.

It is recommended that the City require curbs and five-foot sidewalks on all new roadway and reconstruction projects and ensure that sidewalks provided on developing properties be connected to the external pedestrian system.

Wheelchair ramps and other facilities should be provided as required by the Americans with Disabilities Act (ADA). The lower lip of the wheelchair ramp shall be flush with the roadway surface.

Currently, Columbia City does not have implementing ordinances related to the location of or minimum standard for bicycle lanes. The City should require bicycle lanes on all City streets outlined in the State Bicycle Plan. The bicycle lanes should be implemented as; 1) the identified existing streets are upgraded, or 2) the identified new roadways are constructed.

Bikeways should also meet the minimum requirements of the 1995 Oregon Bicycle Plan and AASHTO's Guide for the Development of Bicycle Facilities. The City should provide bike lanes that range in widths from four feet to six feet, providing wider lanes on roads with higher vehicle speeds and larger traffic volumes. Right-of-way standards need to be adjusted where on-street parking is desired.

TPR Requirement: OAR 660-12-045 (3)(e) - Internal Pedestrian Circulation in New Developments.

Summary: Internal pedestrian circulation shall be provided in new office parks, and commercial developments through clustering of buildings, construction of pedestrian ways, skywalks, where appropriate, and similar techniques.

Recommendation: A walkway should be provided to each street abutting the property. A walkway should be provided for every 300 feet of street frontage or for every eight rows of vehicle parking. A walkway should also be provided to any bikeway or walkway along a frontage of the site which is not bordered by a street.

Sidewalks and walkways must connect the pedestrian circulation system to other areas of the site such as other buildings, parking lots, children's play areas, required outdoor areas, and any pedestrian amenities, such as plazas, resting areas, and viewpoints.

The on-site circulation system should incorporate a streetscape which includes curbs, sidewalks, pedestrian scale light standards, and street trees.

Walkways should be constructed to sidewalk standards except for portions of walkways in driveways and other vehicle maneuvering areas which shall be raised at least 3" and paved with a different material than the surrounding driveway.

TPR Requirement: OAR 660-12-045 (6) - Improvements to Facilitate Bicycle and Pedestrian Travel.

Summary: Local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient, and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers.

Recommendation: The City should ensure that pedestrian and bicycle access is maintained between residential neighborhoods. Specific measures should include: constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses. Another measure to facilitate pedestrian and bicycle travel is to narrow the street width along local streets.

9.0 TRANSPORTATION PLANNING RULE COMPLIANCE

In April 1991, LCDC, with the concurrence of ODOT, adopted the Transportation Planning Rule, OAR 660 Division 12 (updated 1995). The TPR requires local jurisdictions to prepare and adopt a Transportation System Plan by May 1997. Outlined below is a list of recommendations and requirements for a TSP for an Urban Area with a population between 2,500 and 25,000, and how each of those were addressed in the Columbia City Transportation System Plan.

9.1 Developing a TSP

TPR Recommendations/Requirements	Columbia City TSP Compliance
Public and Interagency Involvement	
• Establish Advisory Committees.	A project management team was established at the outset of the process. Membership on the management team consisted of ODOT and City staff.
• Develop information material.	Stakeholder interviews were conducted. Draft information was prepared and presented at the management meetings. There were articles in the local newspaper prior to each open house.
• Schedule informational meetings, review meetings, and public hearings throughout the planning process. Involve the community.	Two open houses were held throughout the planning process. Stakeholder interviews were conducted. The open houses were advertised on the radio and through the local newspaper.
• Coordinate Plan with other agencies.	Coordination with local government agencies was accomplished by including them on the management committee and through individual project briefings or meetings.
Review Existing Plans, Policies, Standards, Laws	
• Review, evaluate existing comprehensive plan. (goals, policies, OTP & other state plans)	The following plans were reviewed as part of the development of the TSP: *Columbia City Comprehensive Plan, Transportation Planning Rule, Oregon Transportation Plan, Oregon Highway Plan, Highway 30 Corridor Plan, Highway 30 Access Management Plan, Columbia City Zoning and Street standards.*
• Land use analysis - existing land use/ vacant lands inventory.	Existing and future land use patterns were reviewed to analyze current travel patterns and future transportation needs. A vacant land inventory conducted by PSU as part of a PDIA analysis was updated.
• Review existing ordinances - zoning, subdivision, engineering standards.	The existing City Subdivision Ordinance, Zoning Ordinance, and City Engineering

	Standards were reviewed for adequacy in the development of the TSP.
• Review existing significant transportation studies.	Relevant transportation studies reviewed as part of Columbia City.
• Review capital improvements programs, public facilities plans.	Capital improvements programs for the City were reviewed as mentioned above.

Inventory Existing Transportation System

• Street system (number of lanes, lane widths, traffic volumes, levels of traffic volumes, traffic control service, traffic signal locations and jurisdiction, pavement conditions, structure locations and conditions, functional classification and jurisdiction, truck routes, number and location of accesses, safety, substandard geometry).	An inventory of the existing street network addressing each one of the required components is provided in Section 4 of the TSP.
• Bicycle ways (type, location, width, condition, ownership/jurisdiction).	A summary of the existing bicycle route system is given in Section 4.
• Pedestrian ways (location, width, condition, ownership/jurisdiction).	A summary of existing sidewalks in the in the City is given in Section 4.
• Public Transportation Services (transit ridership, routes, frequency, stops, fleet, intercity bus, special transit, services).	A summary of the existing public transportation services in presented in Section 4.
• Intermodal and private connections.	Identification of private connections is given in Section 4.
• Air transportation.	A summary of existing air service in the area is provided in Section 4.
• Freight rail transportation.	A summary of existing freight rail services is provided in Section 4.
• Water transportation.	A summary of water transportation services in provided in Section 4.
• Pipeline transportation.	A summary of pipeline transportation is provided in Section 4.
• Population, employment forecasts.	Development of the forecast of transportation needs was based on population and employment numbers based on current growth trends.

Determine Transportation Needs

• Forecast population, employment.	Population and employment forecasts were developed based on current growth trends and verified with Columbia City Staff. This information was used in developing the travel demand model. The model development is discussed in Section 5.
• Determination of transportation capacity needs (cumulative analysis, transportation gravity model).	Future daily traffic assignments were developed using the travel demand model described in Section 5.
• Other roadway needs (safety, bridges, reconstruction, operation/maintenance).	A safety analysis was conducted as part of the alternatives evaluation process.
• Public transportation needs (special transportation needs, general public transit needs).	Public transportation needs are discussed in Section 5.
• Bikeway, pedestrian needs.	Both bicycle and pedestrian needs are discussed in Section 5.

Develop and Evaluate Alternatives

• Update community goals and objectives.	Goals and objectives for the TSP were established through a public process, as described in Section 2.
• Establish evaluation criteria.	Evaluation criteria were established based on the TSP Goals and Objectives, and were applied to TSP Alternatives as described in Section 6.
• Develop and evaluate alternatives. Including:	Section 6 identifies the transportation system alternatives to assess the long-term transportation needs.
Select recommended alternative. chosen as the preferred alternative. The mode choices to reduce reliance on the single-	The Transportation System Alternative was recommended alternative provides alternative occupant vehicle (see Section 7).

Produce a TSP

• Transportation goals, objectives, and policies.	Policies to guide the Columbia City transportation system are throughout Section 7.
• Streets plan element: ⇒ Functional street classification ⇒ Facility improvements ⇒ Access management plan ⇒ Truck Plan ⇒ Safety Improvements	The Streets Plan element is outlined in Section 7 and contains each of the required and recommended components.
• Public transportation element	The Public Transportation element is

⇒ Transit facilities ⇒ Special transit services ⇒ Intercity transit	outlined in Section 7 and contains appropriate components required for Columbia City.
• Bikeway system element.	The Bicycle Plan is outlined in Section 7.
• Pedestrian system element.	The Pedestrian Plan is outlined in Section 7.
• Airport element.	There are no air facilities within Columbia City's jurisdiction.
• Freight rail element (terminals, safety).	Rail freight is discussed in Section 7.
• Water transportation element (terminals).	The Water Transportation element is outlined in Section 7.
• Transportation System Management (TSM).	TSM is included in the Preferred Alternative as outlined in Section 7. Access management is also described.
• Transportation Demand Management (TDM).	A TDM element is not applicable per OAR 660-12-020 (2)(f) and (g).

9.2 Implementation of a TSP

Plan Review and Coordination

• Consistent with ODOT and other applicable plans.	The TSP is consistent with other applicable plans.

Adoption

• Is it adopted?	To follow.

Implementation

• Ordinances (facilities, services and improvements; land use regulations).	Outlined in Section 8.2
• Transportation financing/capital improvements program.	Not Required.

Appendix B
Description of Level-of-Service Methods and Criteria

Level of Service Concept

Level-of-Service (LOS) is a concept developed to quantify the degree of comfort afforded to drivers as they travel through an intersection or roadway segment. Comfort is determined by various factors including travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles. Six grades (A through F) are used to denote the various operating conditions.[1] Table B1 describes the six LOS grades.

Table B1. Level-of-Service Definitions for Intersections

LOS	Definition
A	Free flow conditions. Users are virtually unaffected by the presence of others in the traffic stream. Delay is minimal and level of comfort is excellent. Still in the range of stable flow, but the presence of other users in the traffic stream is noticed.
B	Still in the range of stable flow. The freedom to select desired speed is unaffected, but the freedom to maneuver and intersection delay are slightly hampered. The level of comfort is somewhat less than at LOS A.
C	Still in the range of stable flow, but the operation of individual users and intersection delay is becoming significantly affected by interactions with others. The general level of comfort and convenience declines noticeably.
D	High density, but stable, flow. Speed and freedom to maneuver are severely restricted. The driver experiences poor level of comfort and convenience.
E	Operating conditions at or near capacity. All speeds are low, but relatively uniform. Freedom to move is difficult and delay is high. Comfort and convenience are poor and frustration is high. Operations at this level are unstable because small increases in traffic will likely cause breakdowns. Breakdowns occur when drivers are delayed excessively at intersections (more than 45 seconds at a stop controlled intersection or for more than one signal cycle at a signalized intersection) or street traffic is "stop-and-go."
F	Breakdown conditions occur. The amount of traffic approaching a point in the road or intersection is more than the facility can accommodate.

1. Source: Highway Capacity Manual Special; Report 209, Transportation Research Board, 1994

For signalized intersections, LOS is determined by average stopped delay per vehicle. The relationship between LOS grades and delay is shown in Table B2. LOS "D" is generally considered to represent the minimum acceptable design standard.

Table B2. Level-of-Service Criteria for Signalized Intersections

LOS	Stopped Delay per Vehicle (Seconds)
A	≤ 5
B	5 to 15
C	15 to 25
D	25 to 40
E	40 to 60
F	> 60

The determination of Level-of-Service at unsignalized, stop controlled (stop signs) intersections depends upon the type of stop control. For intersections with stop control only on the side streets, LOS is defined using the concept of "reserve capacity" (the portion of available hourly capacity that is not used). For intersections with four-way stop control, LOS is defined using average delay per vehicle. Table B3 presents these relationships.

Table B3. Level-of-Service Criteria for Unsignalized Intersections

	Two-Way Stop Control	All-Way Stop Control
LOS	Reserve Capacity	Average Delay per Vehicle (Seconds)
A	< 400	< 5
B	300-399	5 to 10
C	200-299	10 to 20
D	100-199	20 to 30
E	0-99	30 to 45
F	*	> 45

* When demand volume exceeds the capacity of a lane, extreme delays will be encountered, with queueing that may cause severe congestion and affect other traffic movements in the intersection. This condition usually warrants intersection improvements.

The determination of LOS for roadway segments can be determined by volume-to-capacity (v/c)ratio and/or average travel speed. Measured average travel speed is compared to the design free flow speed for three arterial classes, as defined in the Highway Capacity Manual. Table B4 shows the relationships between roadway LOS and both v/c ratio and average travel speed.

Table B4. Level-of-Service Criteria for Roadway Segments

		Arterial Classes		
		Class I	Class II	Class III
		Range of Free Flow Speeds		
		45-35	35-30	35-25
LOS	volume/capacity	Average Operating Speed		
A	< 0.60	≥ 35	≥ 30	≥ 25
B	0.61 to 0.70	≥ 28	≥ 24	≥ 19
C	0.71 to 0.80	≥ 22	≥ 18	≥ 13
D	0.81 to 0.90	≥ 17	≥ 14	≥ 9
E	0.91 to 1.00	≥ 13	≥ 10	≥ 7
F	>1.00	< 13	< 10	< 7

St. Helens/Columbia City
Open House/Public Workshop Summary
June 13, 1996

Background Information:

On May 29, 1996, the cities of St. Helens and Columbia City held an open house regarding the development of a Transportation Systems Plan for both cities and a Visioning Plan for St. Helens. About 60 people attended the Open House. The opportunity to participate was announced through a display ad and an article in The Chronicle, advertisements on KOHI radio station, news releases on KOHI, public notice on the local cable channel; and an invitation letter to residents, businesses, and agencies on St. Helens' mailing list.

The staff participating in the Open House/Workshop were: Skip Baker, St. Helens City Planner; Brian Little, St. Helens City Administrator; Jean LeMont, Columbia City Administrator/Recorder; Brian Christian, Columbia City Planner; Sam Seskin, Consultant Project Manager with Parsons Brinkerhoff; Steve Callas, Deputy Project Manager with Parsons Brinkerhoff; John Andersen, Visioning Planner with McKeever Morris; Jeanne Lawson, Public Involvement Manager with Jeanne Lawson Associates; and Julie Wagner, Public Involvement Coordinator with Jeanne Lawson Associates.

Open House:

The open house, from 7:00 to 9:00 pm, included displays and staff to provide citizens an opportunity to learn about transportation planning and the Visioning process. There were four stations in the room: 1) welcome area with a map for people to draw a line between where they work and live; 2) information on the Transportation Systems Plan for Columbia City; 3) information on the Transportation Systems Plan for St. Helens; and 4) the Visioning Process for St. Helens.

Some key messages that came out of the evening's meeting are as follows:

St. Helens TSP:

- Develop additional pedestrian facilities (including across Highway 30) within St. Helens and between neighboring communities. Improve existing paths.
- Improve public transportation options to connect to other areas, such as Portland. Improve links to areas within town.
- Design safe bike facilities and enforce bike laws.
- Improve capacity, access, and safety along Highway 30.
- Reduce reliance on Highway 30 by improving arterials, paving gravel roads.

- Improve traffic flow -- explore timing of traffic signals and number of signals.
- Retain small-town livability and feel.

St. Helens Visioning:

Overall, citizens agreed that a visioning process for St. Helens is an important and needed exercise to help shape the future of this city. At the Open House, response cards were distributed to citizens, asking them their thoughts on how they view St. Helens now and how they envision St. Helens in the future. Listed below are some of the key community messages that came forward from the response cards.

People have concerns about growth. Although varied, citizens have specific thoughts on the issue of continued growth in the St. Helens area. Their issues ranged from implementing growth-control measures to developing a plan that will accommodate growth (e.g., infrastructure, sewer systems, and schools).

Retaining community and historical character is important. Several citizens expressed the importance on continuing the area's current flavor, the small town feel, the historical sections and open spaces.

Redevelopment of certain areas of the City may be warranted. Some mentioned that gentrification of "shanty" neighborhoods would be in the best interest of the community. There were also concerns about sprawled, auto-dependant development as well as high density living.

Improving the transportation system has an important role in overall livability. Many citizens came to the Open House with concerns regarding the current transportation system. Some key messages include: improve traffic flow; explore bypassing through-traffic; poor access; poor road conditions; how the highway and railroad splits the community; lack of bike/pedestrian access; and that there are not enough alternative transportation modes.

There are a number recreational/community opportunities in the area. A range of opportunities were expressed that may help shape St. Helens in the future. Some suggestions included: a community recreational facility; providing affordable or free programs for the youth in terms of education, sports, and other recreation; nearby medical facilities; local events and festivals; and a library with a professional librarian.

Effective public participation and planning is critical. The public clearly expressed their opinion that working with as well as educating the public is a necessary component in this process. Providing professional guidance -- planning that is objective and proactive (rather than having a "band-aid approach") was conveyed as crucial in translating community issues/concerns into a workable plan. The need for inter-governmental cooperation was also

mentioned.

Open House Displays:

The specific information displayed at Columbia City station included:

- Text board explaining what are Transportation Systems Plans
- The purpose of the study
- Map of the existing highway/roadway system
- Map of existing pedestrian ways and sidewalks
- Key issues heard do date -- including bike and pedestrian, access, road/highway -- with opportunities for people to add to the list of issues
- Travel characteristics of commuters
- How public input will be used
- What happens next (schedule)

Information displayed at the St. Helens Transportation Systems Plan station included:

- Explanation of a Transportation Systems Plan
- The purpose of the study
- Key issues heard do date -- including bike and pedestrian, road/highway, and public transportation -- with opportunities for people to add to the list of issues
- Map of the existing highway/roadway system
- Map of existing pedestrian ways and sidewalks
- Map of existing bike paths
- Travel characteristics of commuters
- Current traffic volume information
- How public input will be used
- What happens next (schedule)

Information at the St. Helens Visioning station included:

- Visioning process schedule that includes an explanation of the process
- Positive and negative values of the area (as defined through stakeholder interviews and the visioning committee)
- Livability issues -- defined in positive and negative categories
- List of area opportunities and constraints
- Photographs of particular areas of St. Helens were there are opportunities for improvements
- The Community Profile document

- Response card asking people specific questions about what they like/dislike about St. Helens

At the Open House, participants were provided the opportunity to review key issues heard to date (from stakeholder interviews) and add to these lists. Those issues are as follows:

St. Helens TSP

Key pedestrian issues:

- Roadway improvements
- Linear parks
- Connections to the waterfront
- Need more sidewalks
- Pedestrian overpasses over Highway 30
- Need more places to walk
- Restore walkway to Columbia City

The following issues were added to the above list:

- Have a pedestrian overpass -- ONCE the potholes are filled
- Encompass Dalton Lake as "Dalton Lake Wilderness Park" to allow paved paths and trails between St. Helens and Columbia City.
- Restore existing sidewalks to usable state (many broken, covered with gravel and water puddles)
- Charging a fee to developers to pay for new sidewalks to connect existing city sidewalks
- BPA no longer encourages recreation, parks, etc,. under powerlines -- need to change comprehensive plan to discourage this
- Continue sidewalks -- currently they are scattered
- More and longer hiking/walking trail through greenspaces would be nice.

Key public transportation issues:

- Van to Portland
- Old trolleys from downtown to Highway 30
- Need rail line to commute to Portland
- Need regular transit service (expand COLCO)
- Need to restore Greyhound bus service

The following issues were added to the above list:

- Consider tying to Tri-Met -- the Park and Ride south of Scappoose -- explore with Tri-Met
- Public transportation from docks to up-town (like the second one listed above)

- Link to COLCO
- One person placed exclamation points after the issue "need rail line to commute to Portland"

Key bicycle issues:

- Need more bike paths and bikeways
- Need bicycle trails for kids
- Bicycle parking

The following issues were added to the above list:

- Enforcement of helmet law (less than 16 years)
- Enforce no bikes on sidewalks law
- Bike laws on Old Portland Road
- Bicycle lanes off road at least 3 feet so trucks don't suck them in a wind tunnel
- No policing of unauthorized use of land by motorists on Meadowview Drive.

Key highway/road issues:

- Need overpasses to reduce highway conflicts
- Need alternative routes to Highway 30
- Bottlenecks downtown
- Need better "side roads" to serve growing population
- Landscaped streets like Eugene
- Speeding
- Peak hour congestion
- Roads are too narrow
- Lack of access along Highway 30

The following issues were added to the above list:

- Need street alignment plan!
- Suggested an underpass as an option to reduce highway conflicts
- Pave the gravel roads in the City (dusty and potholes)
- Add more drainage/stormdrains on the roads to keep water from running into driveways and towns
- Keep traffic flowing through town -- limit traffic signals
- Study times and adjust traffic signals -- look at traffic needs

- Start improving westside major arterials: widen and pave Matzen -- make it two-way; continue North Verdonia to Columbia Blvd.; widen Pittsburg, Gable and Columbia Blvd. (take over from County)

- Stop red light running by trucks

- St. Helens Port Commission should give their nine acres (zoned residential) to ODOT to add to Dalton Lake development. Residential development should not be built when there is only one road in and out -- emergency access.

- Remember that the airport is a regional facility that serves St. Helens. One of the five reasons that a business chooses a community in which to locate is the proximity of a good airport (move freight and people). The example of the Redmond/Bend airport is a good one to keep in mind: the airport is physically located in Redmond but also serves as a key economic driver for the Bend community (the two towns are 13 miles apart).

Listed below are the community issues that were obtained from the response card.

Question 1: WHAT ISSUES DO YOU FEEL ARE IMPORTANT TO ST. HELENS?

- #1 infrastructure
- Burgeoning traffic and the dependency on autos.
- Being able to handle increased growth from Portland - homes, traffic, people.
- Controlling growth - giving continued attention to old town and the beauty of the river.
- Transportation, cleanliness, livability - parks, views, continuity.
- Projected growth will outstrip the capacity of St. Helen's schools to absorb new students in three years. Our community, including city government, needs to understand that a good school system is primary to positive growth, and they must begin taking responsibility for supporting a plan for providing high quality, safe facilities to meet the educational needs of students coming into our community.
- To keep the growth slow and improve sidewalks, bicycle routes and parks to allow people to get around without the car. Creates more friendly relationships.

1. Development of Old Town section while maintaining/enhancing its historical character, including waterfront access.
2. Long term renovation and redevelopment of east-side residential community.
3. Development of commuter rail services extending from Portland to Longview.

* Small town quaintness, but conveniences of large city (i.e., cultural evening/day activities).
* Watch growth and prepare for it.
* Keep local dollars here (spent by people who live here).

- Keep it open and sprawled.
- That we don't over build -which taxes our schools, police, roadways, etc. I fee that developers are greedy and could care less how the community will look in 10 years - all they want is the money.

- What is our vision correctly planned growth.

* Growth needs to be controlled and infrastructure needs to be in place or viable plan in place.

* Annexations need to be put to the voters of St. Helen's and UGB.

- Infrastructure is not sufficient (water, sewer, roads, schools, etc.).

- Good public transportation! Tie into Tri-Met's system and expand Cocco.

- Maintaining our wonderful small town feel - lots of open spaces.

- St. Helens and Columbia City need to work together more.

Question 2) WHAT DO YOU LIKE ABOUT ST. HELENS?

- Location.

- Friendly people - livable community.

- Old town, small town, has its own identity.

- Friendliness/River influence.

- Small town feeling, friendly. Has distinct neighborhoods and districts, water front and old town.

- The friendly greetings given strangers met in supermarket aisles, the wonderful potential of positive development in Old Town St. Helens, the beauty of our surroundings, the stirrings of cooperation and collaboration that are just beginning. The small town, caring feeling?

- Not a big shopping center for all of Portland.

1. Small town character: community involvement and neighborliness.
2. Old Town - historic charm and character; river frontage.
3. Abundant green spaces, e.g., in canyons.

- Not a "rush-rush" feel like is in Portland/Beaverton area. Can find many conveniences without going to Portland or Longview.

- It is home.
- The people are friendly - there is a great opportunity to attract shoppers to Old Town if a larger park and water front area was developed.
- Could and should be a show place. Rural setting and low key - not a lot of industry or large non-Oregon business - keep out Wal-Mart.
- Small town.
- The open country side. The feel of a small town.
- It's beautiful with the river and mountain views.
- Elbow room and small town livability.

Question 3) WHAT DO YOU DISLIKE ABOUT ST. HELENS?

- Shanty neighborhoods - are there ordinances (laws) that could be enforced?
- Suburban and rural development where 5 to 10 lots are platted on a cul-de-sac leading to a rural country road. This leads to total reliance on auto for transportation. No paved shoulders for bicycle/pedestrian access. No provision for alternative transportation.
- Driving Highway 30 through the city, through traffic could be bypassed. Also poor access - East to West side of Highway 30.
- Rocks.
- Poor road conditions, unpaved streets, few sidewalks, railroad divides town, West side has little in the way of planned arterials.
- The air and water pollution caused by the Mill. the fear of moving away from a forest economy. Extremely poor public transportation. Limited choices re good restaurants and Old Town area in a positive way: failure to provide for our children.
- Not enough high paying jobs.

1. Shabbiness of much of east side residences (some commercial premises).
2. Paper Mill smell.

- Lack of community. Seems like the same people are involved with the community events - which creates burn-out for those that do help. The lack of beauty. Columbia Blvd. is very stark - no green spaces! Old Town has such potential to be a place for all - but it does attract the second hand businesses.

- The highway and railroad cut the town in half - traffic is too fast and all the trees and shrubs are gone - make our town look like California.

- Uncontrolled growth, smell, high taxes, no recreational facility for young adults. Need bike paths, BMX (bicycle) track, place for skate boards and roller blades, etc.

* Developers think they need to develop at high density to make money.

* Developers look at us as all being willing to sell out and put dollars above affected property owners and existing members of the community (we are not all willing to prostitute our property).

* City grants too many variances, hardships and conditional use permits to developers and give individual folks a hard time.

- The infilling that is going on in town.

- Lack of control over developers.

- Leadership (not all but some), primarily city planner Baker.

Question 4) WHAT OPPORTUNITIES TO IMPROVE HOW ST. HELENS DEALS WITH GROWTH AND CHANGE WOULD YOU SUGGEST?

- This display is a good start - the need public input to make it work.

- Aggressively incorporate alternative transportation opportunities with every sub-division.

- Better flow of traffic East to West and North to South.

- Be careful not to allow too much density.

- Follow through with the visions process.

- Hiring a consulting firm to help with visioning was positive and appropriate. We need an objective approach, we've had plenty of time to move forward on our own and haven't done so. The city needs to look around at potential partners in planning, people and organizations who have a vested interest in this process. There could be far more collaboration.

- To keep the growth slow and improve sidewalks, bicycle routes and parks to allow people to get around without the car. Creates more friendly relationships.

1. More community involvement in comprehensive plan review/revision because so much citizen concern is not voices until development stage, when zoning has already occurred.

- Don't really know, but getting professional guidance from others is great. Perhaps talk to other communities how they've done it.

- Plan for growth, not stagnation.

- Have a citizens based council that works with planning that does not consist of real estate, or developers, a non-partisan, so to speak, group. Be more aware of environmental issues - put those first as that is what attracts people to want to live and shop here.

- Keep all citizens alerted and involved - better education of public about these concerns as we grow.

* Conduct city business in such a way that looks at the livability of the city before worrying about developers profits.

- Slow the process/review time frames and take a look at what is being proposed before you.

- Require more in hook-up and system development changes for new people moving into the community.

- Better leadership.

Question 5) ARE THERE SPECIFIC PUBLIC FACILITIES OR PROGRAMS THAT NEED TO BE IMPROVED TO MEET CURRENT OR FUTURE NEEDS?

- Public transportation.

- West side arterials, land set aside as public lands for future schools parks - plan now - don't repeat McBride mistakes. Use Dalton Lake to bring Columbia City and St. Helens together - make it a wilderness park open to public.

- School facilities, recreational facilities for kids, a coordinated plan for developing the Old Town and waterfront area, and to accommodate our visitors arriving by water. We can be a destination!

- Parks need improvement. More open space that is not a ballpark.

1. Canyon areas should be designated as parks.
2. Dalton Lake area and pathway between St. Helens and Columbia City should be preserved for recreational/leisure use.

- Schools - improve and plan for growth. Public transportation from docks to shops up-town on weekends! More cultural/family destination spots: nice restaurants, music, theater, etc.

- If you do not provide activities for you those whose parents cannot or will not provide them an economic resource (i.e., $100/family sports fees) you are going to have some real problems as we grow. How many car stereos were stolen in 1995? 1996? That's a resource to those that have not!

- CPAC needs to be thrown out and start over with real people that do not have financial benefits from planning issues. City Council should hold more of these open houses if they will take seriously the issues people write about.

- All types of youth programs and facilities, better access to river and beaches.

- ROADS - county roads need the city to help with upgrade in UGB. Sewer plan is outdated and not environmentally friendly in all cases.

- Bike trails.

- Restore good medical facilities, such as the hospital. The drive to Portland is too long for critically ill people.

- There needs to be wise decisions and common sense applied.

- 1979 Sewer Plan needs to be redone considering conservation issues.

Question 6: OTHER COMMENTS:

- Prevent commercial growth on Highway 30 (work with county) between Warren and Scappoose.

- Our wonderful new library/tech center desperately needs a professional librarian to guide us in reaching our full potential. A professional librarian can help us to meet our needs now and into the future. Our interim librarian is energetic and has done a wonderful job of developing and promoting programs, but is not equipped to lead. She does not have the education, experience, or understanding of what is lacking. The City Council needs to take the time to educate themselves regarding future needs of the library and what is actually required to operate a library effectively. Please accept the counsel of the State Librarian, Jim Shepke who has offered to help.

- Does the visioning include systems change within the city offices?

- There is little rental housing available in St. Helens. Are there any median income and/or upscale condominium developments being planned? How will people needing rentals be accommodated?

- How does the city plan to attract businesses and people to a community were school facilities are unsafe, deteriorating rapidly, and close to capacity? (Understanding that one of the prime factors which attracts people to a particular area is a good school system. This, in turn, has a positive effect on property values). What is the plan re schools?

- I appreciate the depth of the planning process that is taking place and thank the participants. I believe time spent doing long term planning will be well spent. We need more long-term well thought out solutions to our problems: no more bandaids.

- Local events and festivals contribute to building a sense of community to a great degree. the number of and quality of these events have declined over the last few years. I'd like to see "Historic Days" revived and would like to see more promoting and participation in our parades. They are a charming feature of St. Helens, and I'd hate to see them disappear.

- Keep us informed on your plans in the local newspapers (both Chronicle and Spotlight). I need more information from you made public.

- This open house has been a good idea - Thanks for your help!

- Keep the public forum going - invite input - continue the dialogue with the people who live here. Solicit monies for improvement for "beauty" sites (i.e., blvds. with grass, plants and flower baskets from poles - invite strolling neighborhoods.

- Good luck!

- Work with such groups as Merch/Assoc., Chamber schools and churches - get out to the people before changes are made.

- We need to keep our city livable, we could be another LaConner or the like if do it correctly.

- The city should not be the allies of developers but rather should be the servants of the community. Now is the future of our city and it needs to be protected. Too many special interest groups have major influence.

- I have moved here from high density areas (Navy brat). Lately there seems to be lots of out of town people who want to capitalize on our livability. We feel the push for growth is too much too soon.

Final Input

When participants were leaving the Open House, they were asked to list the most important issue they have. Below is a listing of these issues:

- Don't over anticipate how much growth is coming and don't push for growth. We love our community -- open space, elbow room, and small town livability.

- We don't need "Wal-Mart" type businesses -- lets keep this more rural and livable. Put back the trees.

- Public safety

- Need better east/west access across Highway 30. Need less congestion through St. Helens

- Good idea to update the 20-year plan. Lack of planning leads to disaster -- preserve rural.
- Money is most important in order to implement ideas. Cooperation is also very important.
- Issues are being covered will in this planning effort.
- Do more for kids that don't have financial resources
- Dalton Lake -- Port Commission should give nine acres, zoned residential, to ODOT to add to Dalton Lake wetland development. Developing residences would prevent mosquito control.
- City shouldn't assume everyone is going to sell out to developers
- People live here and commute to Portland because they want to live in a small town. It takes a certain type of person to live a small town life.
- Development needs to be from the City out not from the County in.
- Improve parks, sidewalks, and bike trails to get people out of their houses and cars and make the community more friendly. Get to know your neighbors.
- Place utilities in BEFORE road and building development. Utilities include: superhighway lines, phone lines, sewer, water, electricity, and cable.

St. Helens/Columbia City
Open House Summary
May 1997

Background Information:

On April 29, 1997, the cities of St. Helens and Columbia City and the Oregon Department of Transportation held an open house to display and receive comments on the draft Transportation System Plans for both cities. Approximately 30 people attended the Open House. The opportunity to participate was announced through: a display ad and an article in both The Chronicle and The Spotlight; advertisements on KOHI radio station; news releases on KOHI; an article in the St. Helens Chamber of Commerce newsletter; and a direct mailing from both cities.

The staff participating in the Open House were: Skip Baker, St. Helens City Planner; Brian Little, St. Helens City Administrator; Jean LeMont, Columbia City Administrator/Recorder; Bryan Christian, Columbia City Planner; Michael Ray, ODOT, Corridor Planner; Steve Callas, Deputy Project Manager with Parsons Brinkerhoff; Paul Ceserani with Parsons Brinkerhoff; Julie Wagner, Public Involvement Coordinator with Jeanne Lawson Associates; and Karen Wagner, subconsultant to Jeanne Lawson Associates.

Open House:

The open house, from 6:30 to 8:30 pm, included displays and staff to provide citizens an opportunity to learn about transportation planning process and review the draft Transportation Plans for both cities. There were three stations in the room: 1) background information on the Transportation System Planning process; 2) Information on the draft Transportation System Plan for Columbia City; and 3) information on the draft Transportation System Plan for St. Helens.

Some key messages that came out of the evening's meeting are as follows:

- **Overall, most meeting participants were satisfied with the transportation projects outlined in the draft Transportation System Plans.**

- **For St. Helens, some of the comments we heard regarding the draft Plan include:**

  ⇒ Focus on improving the road system on the westside.

  ⇒ Improve facilities for pedestrians – look into a pedestrian overpass, eliminate bike/pedestrian conflicts.

  ⇒ Improve public transit options to Portland.

  ⇒ There were also suggestions of other roads to improve or connect, such as: connecting Bachelor Flat instead of Achilles with Pittsburg and improving Morse, Millard, Ross and Bachelor Flats.

  ⇒ There are concerns about how the business district is to develop in the future.

- **For Columbia City, some of the comments we heard regarding the draft Plan include:**

  ⇒ Columbia City is growing and improving the transportation system is needed.

  ⇒ Some of the projects listed need to be a higher priority, such as Sixth Street and "A" Street improvements. Expanding "G" Street should be eliminated.

  ⇒ Sidewalks are needed.

  ⇒ Improve the transportation system between St. Helens and Columbia City.

St. Helens Comment Forms:

1) **What are your thoughts on the "Base Case" Alternative compared to the Combination Alternative (a mix of roadway, pedestrian and bicycle improvements)?**

   -- No comments --

2) **Are there projects listed in the Combination Alternative that are more important to you than others?**

   - I like the identification of "H", "M" and "L" and "no time frame". The goals seem reasonable and hopefully can be accomplished.
   - Generally, road/street improvements (off Highway 30) are probably most important. Sidewalks are secondary, and bicycle paths are nice to have, but should be developed along with scenic amenities (e.g., "canyon" paths).
   - How come sidewalks are such a priority now when years ago some cities paid to remove sidewalks?

3) **Are there projects in the Combination Alternative that should be added or deleted?**

   - Park and rides and van pools to Portland. Anything being done on water or rail?
   - The tie from Highway 30 to Pittsburgh Road should start as Church Road. There will be growth in the area along and around Morse Road.
   - Overall, it seems like a good plan.

4) **Do you have any *other* comments you would like us to know?**

- Frontage roads on the westside would seem most effective in reducing traffic volumes on Highway 30.

- The City is filling up with housing in the center of the city. Are we going to have a nice well-rounded business district -- or will it just be a muddle of houses, rather then businesses, and more second-hand stores? Where will the bicycle paths be placed so the kids going to McBride School have a place besides the sidewalk. We live on Shore Drive - Senior Citizen Haven and Sunset with 64 units. There they are selling as fast as they have a roof on. Where will all these people shop?

  We would like an overpass over Highway 30 to go to our business district. Many of us walk, ages 65-90 years old and no longer drive. Right now we share a sidewalk with McBride students riding bicycles up and down the road (and going double decker with their bicycles).

  Transportation - what about railroads? Blue Bird bus might take us to Montgomery Wards. Many of us make this trip to see our specialist in Portland, as we've done for the past 10-15 years. If we're ill, and we don't drive, I wouldn't want to ride Tri-Met! I've had real bad consequences in the past.

- If you must go by the laws we have, how come if they don't like them they make new ones?

- Concerning connecting Achilles with Pittsburgh, Achilles is not very long and the road ends off of Morse Road. Bachelor Flat goes south a long ways. Other roads connect as well -- Church Road - Berg Road. Where it turns south it connects to Saulser Road which goes around the fairgrounds and connects to Bachelor Flat. And just east is a road (East Kappler) that goes north and connects to Pittsburgh. So I think Bachelor Flat south to north would be a better connection.

  I'm also concerned about a creek over the hill from Achilles. A lot of geese flock here in winter escaping the hunters and also the flood. There is also a lake farther south.

- How are all these plans being coordinated with plans (and costs) for the utilities that will be required?

  I was interested in finding out about the ideas for improving the Morse, Millard, Ross and Bachelor Flat roads.

- I have come to believe that population (probably) and job growth projecting (especially) are too high. Am I the only person in St. Helens who doesn't think Boise Cascade will be operating in 20 years (or much less!) at its present scale.

- Will we still be here by 2016?

- Highway 30 development is essential; after that, the traffic flow on west side is/should be major focus.

5) **Were you able to have your questions answered at this Open House?**

Yes = 6
No = 0

- Thank you for the maps. The personnel were very well informed and nice to talk with.

6) **How did you find out about this Open House?**

Mailer = 2
Newspaper ad = 2
Word of Mouth = 1
Radio = 1
Newspaper article = 5

Columbia City Comment Forms:

1) **What are your thoughts on the "Base Case" Alternative compared to the Combination Alternative (a mix of roadway, pedestrian and bicycle improvements)?**

- The Base Case Alternative should include an expansion in width of both "A" Street and "E" Street on the west side to the highway.

2) **Are there projects listed in the Combination Alternative that are more important to you than others?**

- The development of sidewalks and widening of 6th Street from Lincoln to "K" Street. This should be a high priority not a low priority. The city development is all along 6th and it is the single largest arterial in the city. Sixth is also a major pedestrian thoroughfare in a town that has a lot of walkers.
- Improve 6th - widen and put in sidewalks. Bicycle trail on Highway 30 and 6th.

3) **Are there projects in the Combination Alternative that should be added or deleted?**

- Eliminate the expansion of "G" Street, it is too steep. The development of sidewalks on the east side should be reduced to low priority. Correcting Lincoln to Tacoma should be a low priority.
- Pixie Park, Fishing Pier good choice.

4) **Do you have any *other* comments you would like us to know?**

- The growth of the city is faster than you anticipate. I believe Columbia City will fill 95 percent of its current area within five years not eight to ten years.
- Sixth Street and "A" Street improvements need to be the higher priority. Volume of traffic, both pedestrian and vehicle.
- Often seems difficult to travel between St. Helens and Columbia City. Can alternate routes be developed?
- High need.
- Looks good.

5) **Were you able to have your questions answered at this Open House?**

Yes = 4
No = 0

6) **How did you find out about this Open House?**

Mailer = 3
Newspaper ad = 4
Word of Mouth = 0
Radio = 0
Newspaper article = 0

Questions Asked to All Participants:

We asked participants to place a bean in one jar that corresponds to how they got to the Open House. This was their response:

I Drove alone	= 14
I Drove with others	= 13
I Walked	= 0
I took COLCO	= 0
I Biked	= 0

As participants were leaving the meeting, we asked them to tell us their number one issue, suggestion or concern. This is what we heard:

- Environmental impact to geese if new road is near creek on Millard Road.
- Do not change laws to favor developers; especially street width.
- Sixth Street widening -- need sidewalks, as well as a way of getting more cars through.
- Bike path along Highway 30 must be reconstructed.
- Car pollution for those along Highway 30.
- Bike paths along Columbia Boulevard.
- All new developments should have sidewalks made. Continuous walkways along all properties.
- Pittsburgh Road needs a street light.
- Pave Smith Road (Columbia City) all the way along, (to top of hill, three miles unpaved). Good access road for Pittsburgh Road - traffic alleviation.
- Need sidewalks on collector streets in Columbia City.
- Do not want Ross Road to be a main access road (thorough fare).
- Bypass/connector between Achilles and Pittsburgh should start at Church Roads.
- Repave Slavens Road and Tarbell Road.