Columbia County Community-Wide Transit Plan and US 30 Transit Access Plan

Columbia County, Oregon

Final Draft

June 2009

Columbia County Community-Wide Transit Plan

and

US 30 Transit Access Plan

Columbia County, Oregon

Prepared For:
Janet Wright, Columbia County
230 Strand Street
St. Helens, Oregon 97051
(503) 397-1035
www.columbiacountyrider.org

Prepared By:
Kittelson & Associates, Inc.
610 SW Alder, Suite 700
Portland, OR 97205
(503) 228-5230
www.kittelson.com

Project Managers: Kathryn Coffel and Paul Ryus, P.E.

Project No. 09455.0 / 09446.0

June 2009

This project was partially funded with a grant of Federal Transit Administration (FTA) Rural and Small Urban Area Program, 49 U.S.C. 5311 funds. The ODOT Public Transit Division Section administers FTA program funds and selects projects through its Discretion Grant Program 5311. In addition, this project was partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), local government, and the State of Oregon funds.

Acknowledgments

Kittelson & Associates, Inc. and the consultant team would like to thank the participation and work efforts of the Project Management Team and Task Force for the development and review of the plans presented herein. Members of the PMT, Task Force, and Consultant Team are listed below.

Project Management Team

Janet Wright
Columbia County

Sherrin Coleman
ODOT, Public Transit

Sherrin Coleman
ODOT, Public Transit

Sonya Kazen
ODOT, Region 1

Henry Heimuller
Columbia County Rider

Erika Owen
Columbia County LDS

Lonny Welter
Columbia County

Transit Task Force

Linda Bainbridge
Columbia County Citizens Transit Advisory Committee

Jacob Grachien
City Planner, St. Helens Planning Department

Rocky Johnson
Director, Community Action Team/Columbia County Citizens Transit Advisory Committee

Connie Budge
Columbia County Citizens Transit Advisory Committee

Sandy Davis
Director, Turning Point/Columbia County Citizens Transit Advisory Committee

Lars Gare
City Manager, Rainier

Dan Garrison
Vice Chair, City Transit Advisory Committee

Jon Hanken
City Manager, Scappoose

Sally Harrison
Mayor, City of Vernonia

Nancy Harwood
Director, RSVP/Columbia County Citizens Transit Advisory Committee

Transit Task Force (continued)

John Helm
Chair, Columbia County Transit Advisory Committee

Greg Hinkelman
City Manager, Clatskanie

Sarah Dailey
Sunset Empire Transit District

Craig Johns
Director, Community Action Team

Candy Kooyman
Metro West Ambulance , Inc.

Kevin Merry
Director, CUBS

Erin Miller
Metro West Ambulance, Inc.

Kevin Miller
Mayor, City of Prescott

Joe Pyle
Veterans Representative/Columbia County Citizens Transit Advisory Committee

Leahnette Rivers
City Manager, Columbia City

Rosemary SiipolaCowlitz-Wahkiakum Council of Governments

Cindy Stockton
Director, Riverside Centers/Columbia County Citizens Transit Advisory Committee

Jessica Tump
TriMet Planning Department

Consultant Team

Kittelson & Associates, Inc.
610 SW Alder, Suite 700
Portland, OR 97205
(503) 228-5230

Paul Ryus
Associate Engineer
pryus@kittelson.com

Kathryn Coffel
Associate Planner
kcoffel@kittelson.com

Nick Foster
Engineering Associate
nfoster@kittelson.com

Jamie Parks
Planner
jparks@kittelson.com

Conor Semler
Transportation Analyst
csemler@kittelson.com

Consultant Team (continued)

Angelo Planning Group
921 SW Washington, Suite 468
Portland, OR 97205

Matt Hastie
Public Outreach
mhastie@angeloplanning.com

Darci Rudzinski
Planner
drudzinski@angeloplanning.com

ECONorthwest
888 SW 5th Ave, Suite 1460
Portland, OR 97204

Carl Batten
Revenue Analysis
batten@portland.econw.com

Otak, Inc.
700 Washington St, Suite 401
Vancouver, WA 98660

Tom Litster
Facility Planning/Environmental Assessment Otak, Inc.
tom.litster@otak.com

Table of Contents

List of Figures

List of Tables

Appendices

Appendix A Example Shared Use Parking Agreement

Appendix B Columbia County Rider Fleet Inventory

Appendix C Current Columbia County Rider Schedules

Appendix D Current Dial-a-Ride Fare Schedule

Appendix E Detailed Ridership Counts

Appendix F Resident Surveys – Detailed Findings

Appendix G Rider Surveys – Detailed Findings

Appendix H Stakeholder Interviews – Detailed Findings

Appendix I Fare Policy Goals

Appendix J Peer Transit Agency Fare Systems

Appendix K Data for Estimating Operating Expenses per Revenue Hour

Appendix L Meeting Summaries

Appendix M Glossary

Section 1
Introduction

Introduction

Columbia County initiated the Community-wide Transit Plan Update (Plan) in 2008 to address the current and future transit needs of the community. The update builds on the Community-wide Transit Plan adopted in 2002 as well as the Coordinated Transit Service Plan completed in 2007 and updated in 2008. The Plan update provides direction to the County for planning and implementing transit services, operations, facilities, and funding within a 10-year horizon. Additionally, the update incorporates the US 30 Transit Access Plan for transit facility improvements along the US 30 transit corridor. The Community-wide Transit Plan Update and the US 30 Transit Access Plan were conducted concurrently, with funding support from the Oregon Department of Transportation (ODOT) Public Transit Division and the joint ODOT/DLCD Transportation Growth Management Program, respectively. The two plans have been combined in a single document for adoption and implementation.

During the course of the planning process, a variety of activities were conducted to involve Columbia County residents and affected agencies in the planning process, particularly in those communities directly affected by the transit plan's identified improvements. These activities included:

- Meetings with the County's Transit Task Force throughout the project;
- Public meetings in St. Helens, Vernonia, Clatskanie, and Rainier, including open houses and presentations at other organizations' meetings (e.g., a chamber of commerce luncheon and senior center lunches);
- Meetings with appointed and elected officials;
- Surveys of County residents and current bus riders; and
- Preparation of informational materials.

Public outreach activities were incorporated into the planning process in the following ways:

- Project Management Team and Task Force members reviewed and commented on draft work products from the consulting team, including technical memoranda, survey questionnaires and results and plans for other public outreach activities.
- Task Force members also assisted in evaluating US 30 transit facility locations and needs through field visits and reviews of evaluation criteria and results.
- Transit riders (an important component of the general public) commented on existing transit services and future service improvement needs through a survey of riders.
- The general public commented on transit service goals, importance of transit, and potential funding measures through a random sample survey; they also commented on proposed service improvements, fare structures and changes, and facility improvements through two

sets of public meetings, as well as through written questionnaires distributed at meetings and via the County's website and local community facilities.

- Members of specific interest groups (e.g., social service agencies and employers) also commented on transit service needs through a series of stakeholder interviews and meetings.

- Local appointed and elected officials reviewed and commented on the draft Community-wide Transit Plan and US 30 Transit Access Plan during two work sessions and via e-mail.

- The public was informed about the planning process throughout via the County's website, information distributed on buses, e-mails to interested parties and other means.

These activities are described in more detail within the Plan.

The Plan is designed to serve the needs of the major population centers of Scappoose, St. Helens, Rainier, Clatskanie, and Vernonia, as well as the County's smaller communities and rural areas. County residents often find it necessary to travel outside the County for work, medical, shopping, and other purposes, with primary destinations being the Portland, Hillsboro, and Longview/Kelso areas. Intra-county travel is also important, as some services are only available in the larger communities. The Plan takes into consideration the ability to travel these longer distances, as well as the ability to make shorter trips within a particular city.

The Plan provides a set of recommendations for transit services throughout Columbia County. The range of services includes fixed-route bus, demand-response bus, vanpool, and carpool, supported by transit facilities, including upgraded bus stops and new park-and-ride lots. The Plan also addresses fares, current and future routes, and coordination with neighboring transit services.

The implementation process proposed in the Plan strives to provide coordinated, comprehensive implementation of recommendations, including phased actions and prioritization, responsible entities, and funding options. It also develops recommendations for amendments to County and City comprehensive plans, transportation system plans, and zoning ordinances to implement the Plans.

The Plan's implementation material is recommended to be adopted by Columbia County and the affected cities within the County, in order to facilitate the implementation of the Plan's elements. This material consists of the following Plan sections:

- **Code Amendments** identifies necessary amendments to County and city comprehensive plans, transportation system plans, implementing land use ordinances, and roadway standards.

- **Listing of Projects** provides two tables listing all the projects recommended to be added to local plans resulting from (1) this planning process and (2) the Lower Columbia River Rail Corridor Study, respectively.

- **Outreach Programs** outlines recommended programs to increase public knowledge of and support for transit, improve transit service quality, and expand transit service.
- **Evaluation Mechanism** establishes an annual mechanism for evaluating transit service and funding.
- **Refinement Studies** are additional activities that would strengthen the transit system's operations over time.

The Plan is designed to grow and improve Columbia County's public transit system in a manner that is attainable, while addressing the needs of residents. The Plan is expected to continue to evolve in the future as the County's needs change. Consequently, the Plan provides a roadmap for the future growth of Columbia County's transit system.

Section 2
Plans, Goals, and Policies

Plans, Goals, and Policies

This section summarizes plans and policies relevant to the Columbia County Community-wide Transit Plan (CCCTP) and the US 30 Transit Access Plan. Under the State of Oregon's Transportation Planning Rule, regional and local transportation plans must be consistent with the state's transportation plans. For this reason, along with a desire for transportation planning consistency within Columbia County, this section reviews the relevant state, regional and local level transportation documents that relate to one or both of the County transit plans being developed. Although each document reviewed contains many policies and recommendations, this technical review summarizes only the policies pertinent to development of the CCCTP.

Some of the "existing conditions" information described in these documents is dated. The summaries describe the information as it is presented in the source documents, generally using the past tense for information known to be out of date. Developing an up-to-date inventory of existing conditions is part of both projects' work scopes; this inventory is presented in *Section 3, Existing Conditions and Future Needs.*

STATEWIDE PLANS

Oregon Transportation Plan (September 2006)

The Oregon Transportation Plan (OTP) is the overarching policy document for a series of modal plans that together form the state transportation system plan (TSP). The OTP establishes goals, policies, strategies, and initiatives that address the core challenges and opportunities facing Oregon. It provides the framework for prioritizing transportation improvements, and as such figures into the development of the CCCTP. Sections of particular interest include *Goals, Policies, and Strategies,* which provides guidance for transportation decision-making, and *Implementation*, which outlines key state initiatives that should be incorporated into plan development.

Goals, Policies, and Strategies

Goal 1 (*Mobility and Accessibility*) presents several important policies and strategies which should be considered through development of the CCCTP.

- Policy 1.1 – Development of an Integrated Multimodal System

  - Strategy 1.1.1 calls for regional and local transportation plans to address existing and future centers of economic activity, routes and modes connecting passenger facilities and freight facilities, intermodal facilities and industrial land, and major intercity and intra-city transportation corridors and supporting transportation networks.

  - Strategy 1.1.2 involves promoting the growth of intercity bus services, along with other transportation modes, to link all areas of the state with national and international transportation facilities and services, as well as increasing the frequency of intercity services to provide travel options.

- Strategy 1.1.3 emphasizes consideration of interstate transportation needs and cooperation with neighboring states to improve interstate travel.

■ Policy 1.2 – Equity, Efficiency, and Travel Choices

- Strategy 1.2.1 entails developing and promoting inter- and intra-city public transportation. Steps include optimizing existing services; finding innovative ways to augment existing public transportation infrastructure and travel options; working to coordinate services; using information technologies effectively; and promoting frequent public transit, intercity bus, and passenger rail services to increase ridership and decrease travel times, particularly during peak travel periods and along heavily traveled corridors.

- Strategy 1.2.2 calls for better integrating, locating, and designing passenger and freight multimodal transportation facilities and connections to expedite travel and provide travel options. Steps include locating bus and train stations together; coordinating intermodal connections; retrofitting roadways to support access to public transportation; supporting the development of grid street networks to increase connectivity and travel options; and supporting the development of adequate bicycle and pedestrian facilities.

■ Policy 1.3 – Relationship of Interurban and Urban Mobility

- Strategy 1.3.1 entails using a regional planning approach and inter-regional coordination to address problems that extend across urban growth boundaries.

- Strategy 1.3.2 calls for development, maintenance, and improvement of parallel roadways and transit to provide alternatives to using intercity highways for local trips.

Goal 3 (*Economic Vitality*) also contains several relevant policies and strategies.

■ Policy 3.2 – Moving People to Support Economic Vitality

- Strategy 3.2.1 involves increasing coordination among various agencies and jurisdictions in order to facilitate travel through the support of trip planning, convenient and reliable intermodal connections, and shared tickets among carriers.

- Strategy 3.2.2: In regional and local transportation system plans, support options for traveling to employment, services, and businesses.

- Strategy 3.2.3: Support intercity bus to facilitate business and recreational travel.

■ Policy 3.3 – Downtowns and Economic Development

- Strategy 3.3.1: Coordinate private and public resources to provide transportation improvements and services to help stimulate active and vital downtowns, economic centers and main streets.

- Strategy 3.3.2: Integrate transportation planning and investments with state and local economic development strategies and plans.

■ Policy 3.4 – Development of the Transportation Industry

- Strategy 3.4.2: Partner with public transportation providers and the private sector to develop innovative ways to deliver goods and services more efficiently such as public transportation services in rural areas.

- Strategy 3.4.3: Partner with the private sector and public agencies to foster sustainable transportation services in rural areas.

Goal 4 (*Sustainability*) further outlines a number of potentially relevant policies and strategies.

■ Policy 4.1 – Environmentally Responsible Transportation System

- Strategy 4.1.2: Encourage the development and use of technologies that reduce greenhouse gases.

- Strategy 4.1.4: Work collaboratively to streamline permit procedures and gain efficiencies to transportation system improvements while meeting or exceeding environmental benefits or regulations.

- Strategy 4.1.5: In the construction and maintenance of transportation infrastructure and facilities, reduce the consumption of non-renewable construction materials, promote their efficient use and reuse, and reduce other environmental impacts such as stormwater impacts where appropriate

- Strategy 4.1.6: To determine the most cost-effective investments, consider using life-cycle costs in transportation maintenance, purchase of equipment, selection of materials, and design and engineering of infrastructure where appropriate.

■ Policy 4.2 – Energy Supply

- Strategy 4.2.2: Support the conversion of passenger vehicles and public transportation fleets to more fuel-efficient and alternative fuel vehicles, especially to those using renewable and cleaner fuels. Review and change the tax credit provisions to encourage these activities as appropriate.

- Strategy 4.2.3: Work with federal, state, regional and local jurisdictions and agencies as well as transportation providers, shippers and the general public to develop a contingency plan for fuel shortages affecting passenger and freight transportation.

■ Policy 4.3 – Creating Communities

- Strategy 4.3.1: Support travel options that allow individuals to reduce vehicle use.

- Strategy 4.3.2: Promote safe and convenient bicycling and walking networks in communities by: (1) filling in missing gaps in sidewalk and bikeway networks, especially to important community destinations such as schools, shopping areas, parks, medical facilities, and transit facilities; (2) enhancing walking, bicycling and connections to public transit through appropriate community and main street design; and, (3) promoting facility designs that encourage walking and biking.

- Strategy 4.3.4: Promote transportation facility design, including context sensitive design, which fits the physical setting, serves and responds to the scenic, aesthetic, historic, and environmental resources, and maintains safety and mobility.

- Strategy 4.3.5: Reduce transportation barriers to daily activities for those who rely on waking, biking, rideshare, car-sharing and public transportation by providing access to public transportation and the knowledge of how to us it, as well as providing facility designs that consider the needs of the mobility-challenged including seniors, people with disabilities, children and non-English speaking populations.

Goal 5 (*Safety and Security*) contains several relevant policies and strategies.

■ Policy 5.1 – Safety

- Strategy 5.1.3: Ensure that safety and security issues are addressed in planning, design, construction, operation and maintenance of new and existing transportation systems, facilities and assets.

- Strategy 5.1.4: Support the further development and improvement of interoperable communication systems among safety and security-related agencies, jurisdictions and private entities. Ensure that clear communication protocols are established.

- Strategy 5.1.9: Develop and implement a reliable, comprehensive, and coordinated multimodal transportation data, crashes and incidents reporting program to manage and evaluate transportation safety with the goal of better data integration.

■ Policy 5.2 – Security

- Strategy 5.2.1: Encourage the development of security plans for all modes of transportation encompassing prevention, detection and response. Security plans should provide for coordinated response across all entities and prioritize actions based on critical impact.

- Strategy 5.2.2: Promote the development of cost-effective security measures for transportation facilities and infrastructure.

Goal 6 (*Funding the Transportation System*) contains a relevant policy and strategy:

■ Policy 6.1 – Funding Structure

- Strategy 6.1.3: Develop a transportation finance system which consciously attempts to provide equity among competing users, payers, beneficiaries, transportation systems providers, and regions of the state.

Goal 7 (*Coordination, Communication, and Cooperation*)

- Policy 7.3 – Public Involvement and Consultation

  - Strategy 7.3.1: In all phases of decision-making, provide affected Oregonians early, open, continuous, and meaningful opportunity to influence decisions about proposed transportation activities. When preparing and adopting a multimodal transportation plan, etc., conduct and publicize a program for citizen, business, and tribal, local, state and federal government involvement. Clearly define the procedures by which these groups will be involved.

  - Strategy 7.3.3: Seek out and facilitate the involvement of those potentially affected including traditionally underserved populations.

- Policy 7.4 – Environmental Justice

  - Provide equal access to public information and decision-making about transportation planning, financing, construction, operations, and maintenance activities.

Oregon Highway Plan (May 1999)

The 1999 Oregon Highway Plan (OHP), most recently revised in 2006, is a modal element of the Oregon Transportation Plan. The following portions of the OHP relate to aspects of the Columbia County transit planning process:

- Policy 1B: Land Use and Transportation

  - Action 1B.1: Work with local governments to develop and implement plans that support compact development, especially within community centers and commercial centers. Support plans, strategies and local ordinances that include:

    - Parallel and interconnected local roadway networks to encourage local automobile trips off the state highway;

    - Transit, bicycle, and pedestrian facilities, including street amenities that support these modes

    - Design and orientation of buildings and amenities that accommodate pedestrian and bicycle use as well as automobile use;

  - Action 1B.6: Develop design guidelines for highways that describe a range of automobile, pedestrian, bicycle or transit travel alternatives. The guidelines should include appropriate

design features such as lighted, safe and accessible bus stops, on-street parking, ample sidewalks, pedestrian crossings, pedestrian scale lighting, street trees and related features.

- Action 1B.14: Work to accommodate alternate modes on state highways according to the various types of land uses and highways. Work toward development of alternate mode facilities in Special Transportation Areas, Commercial Centers and Urban Business Areas according to the other actions in this policy and to Table 4 on page 61. Use the following objectives to guide project design and development in other areas:

  a. Within Urban Growth Boundaries:

  On Expressways:

  - Accommodate bicycle lanes, if any, on shoulders or separated facilities.
  - Although pedestrians are generally not accommodated on Expressways for safety reasons, analyze accommodation on a case-by-case basis.

  On Other Urban Statewide, Regional and District Highways:

  - Accommodate bicycle lanes and sidewalks and other pedestrian facilities, especially in commercial centers and community use areas.
  - Provide convenient pedestrian crossings, especially at transit stops and other high-use generators.
  - Design intersections to address the needs of pedestrians and bicyclists.

  b. Outside Urban Growth Boundaries:

  - In unincorporated communities, address pedestrian crossing safety. This may be addressed through traffic signals and medians designed to serve as pedestrian refuges.

■ Policy 1G: Major Improvements

- Action 1G.1: Use the following priorities for developing corridor plans, transportation system plans, the Statewide Transportation Improvement Program, and project plans to respond to highways needs. Implement higher priority measures first unless a lower priority measure is clearly more cost-effective or unless it clearly better supports safety, growth management, or other livability and economic viability considerations. Plans must document the findings which support using lower priority measures before higher priority measures.

- Action 1G.2. Improve efficiency and capacity of existing highway facilities. The second priority is to make minor improvements to existing highway facilities access for alternative modes (e.g. bike lanes, sidewalks, and bus shelters), extending or connecting local streets, and making other off-system improvements.

- Policy 2E: Intelligent Transportation Systems

  It is the policy of the State of Oregon to consider a broad range of Intelligent Transportation Systems services to improve system efficiency and safety in a cost-effective manner. Deployment of ITS shall reflect the user service priorities established in the Oregon Intelligent Transportation Systems Strategic Plan

  - Action 2E.6: Create a statewide network for real time weather, road condition, traffic, traveler services, and public transportation information.

  - Action 2E.7: Encourage transit operators and emergency service providers to develop standardized dispatching, vehicle monitoring, and vehicle priority systems.

- Policy 2F: Traffic Safety: It is the policy of the State of Oregon to continually improve safety for all users of the highway system using solutions involving engineering, education, enforcement, and emergency medical services.

  - Action 2F.3: In identifying solutions to traffic safety problems, consider solutions including, but not limited to

    - Constructing appropriate bicycle and pedestrian facilities including safe and convenient crossings.

- Policy 4B: Alternative Passenger Modes: It is the policy of the State of Oregon to advance and support alternative passenger transportation systems where travel demand, land use, and other factors indicate the potential for successful and effective development of alternative passenger modes.

  - Action 4B.1: Promote alternative passenger transportation services in commute highway corridors to help maintain or meet established performance standards.

  - Action 4B.2: Promote alternative passenger transportation services located off the highway systems that help to preserve the performance and function of the state highway system.

  - Action 4B.3: Encourage the development of alternative passenger services and systems as part of broader corridor strategies, and coordinate them with necessary supportive local actions. Such actions include developing applicable land use regulations, appropriate types of passenger services, adequate collector-distributor roadway systems, and other local transportation system elements.

  - Action 4B.4: Encourage the use of alternative passenger modes to reduce local trips on the state highway system where limited highway facilities accommodate large numbers of both intercity and local trips.

  - Action 4B.5: Support the further development of alternative intercity passenger services in congested transportation corridors through additional peak hour service, use of excess freight rail system capacity, and the provision of support facilities and services which help

connect passengers to their destinations (e.g., intercity passenger rail, air, and/or shuttle or charter bus operations coordinated with parking areas).

- Action 4B.6: In recreational corridors, promote shuttles and/or charter passenger transportation services, coordinated with off-site parking areas, to lessen congestion during peak periods for travel to significant tourist/visitor destination areas.

- Policy 4E: Park-and-Ride Facilities: It is the policy of the State of Oregon to encourage the efficient use of the existing transportation system and to seek cost-effective expansion of the highway system's passenger capacity through development and use of park-and-ride facilities.

  - Action 4E.1: In coordination with local jurisdictions and based on an analysis of need and potential use, provide park-and-ride facilities at appropriate urban and rural locations adjacent to or within the highway right-of-way.

  - Action 4E.2: Acquire right-of-way for park-and-ride facilities during construction or expansion projects as appropriate. Consider acquisition and use of adjacent right-of-way for park-and-ride facilities at highway interchanges, consistent with ODOT access management policies and standards.

  - Action 4E.3: Establish partnerships with other jurisdictions and the private sector to site park-and-ride facilities.

  - Action 4E.4: Convert informal parking areas within highway rights-of-way to formal park-and-ride facilities where appropriate.

  - Action 4E.5: Use ODOT surplus property for park-and-ride facilities where appropriate.

  - Action 4E.6: Provide park-and-ride facilities located in urban areas that are safely accessible by pedestrians, bicyclists, and transit users whenever feasible. Include secure bicycle parking in urban park-and-ride designs.

Oregon Public Transportation Plan (1997)

The 1997 Oregon Public Transportation Plan (OPTP) is a modal element of the Oregon Transportation Plan. The following portions of the OHP relate to aspects of the Columbia County transit planning process:

- Goal 1: Purpose of the Public Transportation System: The public transportation system should provide mobility alternatives to meet daily medical, employment, educational, business, and leisure needs without dependence on single-occupant vehicle transportation. The system should enhance livability and economic opportunities for all Oregonians, and lessen the transportation system's impact on the environment. The public transportation system should provide service and meet transportation needs in a coordinated, integrated, and efficient manner.

- Policy 1A: Urban Access, Rural Access, Basic Mobility: The public transportation system should provide access to rural and frontier areas, connecting them with all other parts of the state and with service within them so that residents have access to all parts of their community. Service to and within rural areas and small cities should fit the needs of the community, be economical, convenient to use and contribute to state objectives and level of service goals.

    - Strategy 1A.1 – Work with local governments to promote development and use of public transportation, bicycle, and pedestrian services.

    - Strategy 1A.2 – Work with local governments to identify and seek funding for high priority public transportation projects.

    - Strategy 1A.4 – Encourage adequate and efficient public transportation access to employment, shopping and other commerce, medical care, housing and leisure activities, including access for the transportation disadvantaged.

- Policy 1B: Environmental Protection: The public transportation system should be designed, operated and maintained so that public transportation facilities and services lessen the transportation system's impact on air and water quality, the natural environment and energy consumption.

- Policy 1C: Economic Prosperity: The public transportation system should strengthen economic opportunities by providing travel options that increase access to jobs.

- Policy 1D: Land Use: The public transportation system and local land use planning should be complementary and coordinated. Public transportation should be both responsive to and facilitate implementation of land use laws.

■ Goal 2: The Components of the Public Transportation System: The public transportation system should be comprised of a hierarchy starting with (level 1) ridesharing or volunteer programs and moving upward as population and density increase to include (level 2) taxi or minibus service and finally adding (level 3) fixed-route services where appropriate. To ensure coordination and efficiency, different types of service should be provided as part of a single, unified public transportation system. Systems for special needs and the general public users should be integrated. Transportation demand management projects should be encouraged anywhere they can meet a need and not be restricted to metropolitan areas.

- Policy 2A: Urban, Small City and Rural Public Transportation Systems: Public transportation should be provided in small cities and towns in a manner appropriate for their size, density, and locally identified needs. At a minimum, public transportation should serve the transportation disadvantaged with rideshare, volunteer programs, taxis, or minibus services. Rideshare matching and transportation demand management services should be available in communities of 10,000, and may be available in communities of 5,000 where there are large employers with a base of at least 500 employees who are not covered by a

regional program. General public transportation with fixed route or other service may be available, and all places of 10,000 people or more should have demand response service.

- Strategy 2A.2: Implement the public transportation requirements of the Americans with Disabilities Act of 1990
- Strategy 2A.3: Promote development of transit centers that are safe, near residential areas, and easily accessible to pedestrians and bicyclists.
- Strategy 2A.6: Pursue revision of regulatory systems to stimulate the provision of transportation services by private companies in rural areas.
- Policy 2B: Intercity Bus and Rail Systems: The intercity bus and rail system should operate to provide a well-coordinated, unified network which enables Oregonians and visitors to access services and activities as identified in the minimum levels of service section. The passenger rail system should provide service through Oregon's main regional and interstate corridors. The passenger bus element should complement rail service b augmenting train schedules, providing feeder service, and serving the bulk of intercity travel needs to communities outside of rail corridors.

- Goal 3: The Management and Financing of the Public Transportation System: The public transportation system should be planned, operated, managed, and financed cooperatively by public and private organizations representing statewide, regional, and local interests.
  - Policy 3B: State Financing: State financial support for public transportation should be reliable, flexible, and stable, based on level of service factors, linked to state objectives and financial resources. The state, in partnership with others, should continue to seek development of new financing mechanisms that contribute to the overall financial adequacy of the public transportation system to meet these objectives.
  - Policy 3C: Public Transportation Facilities and Equipment Management System (PTMS): ODOT, in cooperation with affected local and regional governments, will develop and maintain a PTMS. The PTMS will supply data and other information to help guide public transportation planning, decision making and financing
    - Strategy 3C.2: Provide management training and technology sharing for public and private transportation providers and operators.

Oregon Bicycle and Pedestrian Plan (1995)

This review focuses on the 1995 adopted version of the Oregon Bicycle and Pedestrian Plan. An update of this plan is currently in development, with adoption anticipated by the end of 2008. Design alternatives developed in the CCCTP should consider the current adopted version of the Oregon Bicycle and Pedestrian Plan (currently the 1995 document).

The document includes a section on the design of traffic facilities for bicycle and pedestrian travel. This plan documents planning issues that impact walkway and bikeway design, including land use and site design, network connectivity, access management, and public transit.

In the public transit section, it is stated that high priority should be given to providing sidewalks and bikeways on transit routes and on local streets feeding these routes. It also gives three factors to take into account when deciding the location of transit stops:

- Passengers: stops must be near places where there is an expectation of riders;
- Access: if a stop cannot be located right where riders are, people must be able to get to the stop conveniently;
- Traffic characteristics: bus stops are not always located in ideal locations for riders because of complex traffic patterns, especially at intersections.

There are four types of bikeways listed in this plan, and design standards and recommendations are provided for each type. In particular, the Plan recommends retrofitting bike lanes to existing urban roadways that were built without bike lanes in the following ways:

- Marking and signing existing shoulders as bike lanes;
- Widening the roadway to add bike lanes; or
- Restriping the existing roadway to add bike lanes.

The Plan provides standards and recommendations for short- and long-term bike parking. It recommends covered parking as beneficial due to the high rainfall in the Northwest and also talks about key considerations for siting bike parking. Signing for bike parking is also discussed.

In the walkways section of the Plan, three types of walkways are presented: sidewalks, paths, and shoulders. Standards and guides have been given as to walkway designs. This section covers the standards on transit connections, as well as accommodating people with disabilities.

Other aspects of the Plan that apply to the US 30 Transit Access Plan include street crossing and intersection design for pedestrians and bicycles, and standards and guidelines for shared-use path design.

Oregon Highway Design Manual (December 2003)

The Highway Design Manual provides uniform design standards and procedures for ODOT. It is intended to provide guidance for the location and design of new construction, major reconstruction, and resurfacing, restoration, and rehabilitation projects. This document includes a chapter focusing on pedestrian and bicycle, and a chapter with design guidelines for public transportation. Other chapters also provide some information relating to the pedestrian, bicycle, and transit modes. Since its completion in year 2003, this manual has been updated and revised several times. The manual provides too many details to be repeated here; instead, a summary of the relevant sections is given below, along with a few key design points.

- Chapter 9, *Intersection and Interchange Design,* covers the design guidelines, standards, and process for designing road approaches, signalized and unsignalized at-grade intersections, and interchanges for State Highways. This chapter also discusses bicycle and pedestrian needs in the design of intersections and interchanges.

- Chapter 11, *Pedestrian and Bicycle,* provides general guidance for bicycle and pedestrian movements. Some key points are highlighted below.

  - Urban Highways

    - Bicycle Accommodation: Shoulders are necessary for safety, capacity, and maintenance reasons. The manual also provides the standard width for bike lanes.

    - Pedestrian Accommodation: Sidewalks separated with a buffer are the preferred facility for pedestrians.

    - Sidewalk Dimensions: The manual specifies the standard width for sidewalks and lists several conditions that require greater widths.

    - Americans with Disabilities Act: Sidewalks and connections to private properties must be built so people with limited mobility and sight can easily use them. This section covers standards and guidance to make them accessible.

  - Transit Stops: If a highway project is on a transit route, a complete sidewalk system should be provided for the length of the project. If the project ends at a transit stop, sidewalks should continue to the nearest intersection or to the nearest section of existing sidewalk. There are standards about bus stops in this section. Additionally, the location of bus stops in relation to street crossing opportunities is discussed.

  - Street Crossings: Sidewalks provide mobility along the highway, but full pedestrian accommodation also requires frequent, safe and convenient crossing opportunities. In most cases, it is best to combine measures to improve pedestrian crossing opportunities and safety. Potential measures include raised medians, crossing islands, curb extensions, illumination, crosswalks, pedestrian signals, signing, and sight distance improvements.

- Chapter 12, *Design Guidelines for Public Transportation,* provides guidance to designers for integrating good public transportation design practices into projects. The best practices outlined in this section are intended to provide consistent guidance for all designers.

  - Design Considerations:

    - Yield to Bus Law: This law influences the decision of the local jurisdiction and ODOT between constructing bus pullouts and curbside stops.

    - Bus Signal Priority System: These systems can provide arriving buses the capability to alter the timing (but not the sequence) of green intervals at traffic signals. Discussions

with the local transit agency will result in identifying the need for bus priority signalization.

- Americans with Disabilities Act: Public transportation provides service to persons with disabilities. Designs must comply with the requirements of the Americans with Disabilities Act.

- Safety and Personal Security: Design considerations include safety elements such as pedestrian access, passenger visibility, and traffic impacts, and personal security elements such as lighting, nearby development, and open areas.

- Bus Stops: The spacing, location, and design of bus stops significantly influence transit system performance and ridership.

  - Bus Stop Location Selection must address both traffic operation issues and passenger accessibility issues. If possible, the bus stop should be located in an area where typical improvements, such as a bench or shelter, can be placed in the public right of way. Elements to consider in bus stop placement include the following:

    Use:

    - Proximity to major trip generators;
    - Presence of sidewalks, crosswalks, and curb ramps;
    - Connection to nearby pedestrian circulation system;
    - Access for people with disabilities; and
    - Convenient passenger transfers to other routes.

    Traffic and Rider Safety:

    - Conflict between buses and other traffic;
    - Passenger protection from passing traffic;
    - All weather surface to step to/from the bus;
    - Open and lighted spaces for personal security and passenger visibility; and
    - Street illumination.

    Bus Operations:

    - Adequate curb space for the number of buses expected at the stop at one time;
    - On-street automobile parking and truck delivery zones;

- Traffic control devices near the bus stop, such as traffic signals or stop signs;
- Volumes and turning movements of other traffic, including bicycles;
- Width of sidewalks;
- Pedestrian activity through intersections;
- Proximity and traffic volumes of nearby driveways;
- Street grade;
- Ease of re-entering traffic stream; and
- Proximity to rail crossing.

- Bus Stop Layout and Delineation: The bus stop must be clearly delineated to ensure that other traffic will not use the stop area and to give bus operators direction on where to stop the bus.
- Guidelines for Special Treatments:
  - Bus Pullouts: Bus stops may be designed with a pullout, which allows the transit vehicle to pick up and discharge passengers in an area outside the traveled way. Bus pullouts are provided primarily on high-volume and/or high-speed arterials. Well placed, carefully designed bus pullouts offer safe passenger loading and unloading with minimal delays to both transit and other roadway traffic.
  - Curb Extensions: A curb extension may be constructed along streets with on-street parking in areas with high pedestrian sue such as downtown shopping districts and central business districts. Curb extensions may be designed in conjunction with bus stops to facilitate bus operations and passenger access.
  - Bus Pads: Very concentrated loads, coupled with the dynamic nature of braking, places high demands on the pavement at bus stops. Some curbside stop areas may require strengthened pavement sections.

Park-and-Ride facilities provide parking for people who wish to transfer from their personal vehicle to public transportation or carpools/vanpools. The manual provides guidance on siting and designing park-and-ride facilities.

Chapter 13 includes specific design features and dimensions for bus facilities on state highways.

Portland-Astoria (US 30) Corridor Plan (November 1999)

The Portland–Astoria (US 30) Corridor Plan is the product of a cooperative effort between ODOT, local and regional governments, interest groups, statewide agency and stakeholder committees, and the general public to develop a long-term program for management of and improvements to the

Portland-Astoria Corridor. Elements of the plan were incorporated into local transportation system plans.

- Corridor Plan Objectives for bicycles:
  - A.10: Provide bicycle lanes in urban areas and, at a minimum, provide five-foot shoulders to accommodate bicycle use along the entire corridor length.
  - A.11: Maintain US 30 as a bicycle route, with connections to local bicycle and hiking systems where feasible.
  - A.12: Provide bicycle crossings across Highway 30 where appropriate and feasible.
  - A.13: Improve bicycle access to the St. Johns and Lewis and Clark bridges.
  - A.14: Incorporate adequate bikeways into the Astoria Truck Route and Fern Hill–John Day River Bridge projects and enhance bicycle access into Astoria along the existing Highway 30 corridor.
  - A.15: Develop abandoned railroad corridors into bike/pedestrian corridors and investigate opportunities for co-use of active corridors.
  - A.16: Where feasible, develop remaining sections of the Old Highway 30 alignment into bicycle routes.
  - A.18: Emphasize shoulder maintenance (surfacing, cleaning, vegetation removal), particularly in the peak summer cycling months.
  - A.19: Accommodate bicycles on rural transit lines (when developed).
- Corridor Plan Objectives for pedestrians:
  - A.20: In urban areas, at a minimum, provide six-foot sidewalks on both sides of the highway, and provide convenient and safe pedestrian crossings.
  - A.21: Where feasible, provide separation between pedestrians and autos through access management and landscaping
  - A.22: Provide adequate pedestrian warning signs in rural centers.
- Corridor Plan Objectives for transit services:
  - Service Improvements
    - A.23: Work with public and/or private contractors to provide transit services to serve increasing numbers of commuters and other riders between St. Helens and Portland.
    - A.24: Investigate expansion of Kelso/Longview transit service into Rainier/St. Helens.

- A.25: Ensure ongoing intercity bus service between Astoria and Portland.
- A.26: Encourage transit services, carpooling and/or vanpooling to transit centers and large employment centers.

- Facility Improvements
  - A.27: Develop "Park and Ride" and "Park and Pool" lots
  - A.28: Provide enhanced security and comfort, i.e., covered waiting areas, at transit stops and park and ride locations.
  - A.29: Ensure adequate services for the transportation disadvantaged in the Corridor.
  - Improve pedestrian access to transit stops with sidewalks, street crossings and safer intersection design.

US 30 Corridor Transit Feasibility Study (November 1996)

This study assessed the feasibility of transit services between Portland and St. Helens both in the present and in the future.

- To determine transit feasibility, this study included the following:
  - Assessment of traffic conditions on US 30;
  - Summary of community input through a questionnaire mailed to over 2,000 people on the US 30 mailing list;
  - Information about existing service in the area;
  - Information about similar services in the Northwest and California, including C-Tran (Battle Ground/Yacolt to Vancouver), Pierce Transit (Buckley/Enumclaw to Tacoma), El Dorado (Placerville to Sacramento), Placer County Transit (Auburn to Sacramento), Mason County Transit (Shelton to Olympia), and Gray's Harbor Transit (Westport, Hoquiam, and Aberdeen to Olympia).
  - Assessment of travel patterns and attitudes about the use of alternative modes through a random telephone survey of over 300 people in the Scappoose and St. Helens area who commute toward Portland on US 30 at least three times a week;
  - Development of a service model consisting of fixed-route bus and vanpool service, based on the information gathered from the telephone survey about travel patterns and desirable characteristics of alternative modes; and
  - Evaluation of this model based on demand and cost.

- Based on the results of this feasibility analysis, the study made the following key recommendations:
  - Develop a regional vanpool program to serve commuters.
  - Support and strengthen the general fixed-route service from Columbia City to Portland.

REGIONAL AND COUNTY DOCUMENTS

Columbia County Comprehensive Plan (August 1984)

The Columbia County Comprehensive Plan was completed in year 1984 and updated in 2001. This Comprehensive Plan describes the County's goals and policies related to development and conservation of the County's resources, public facilities and services. This plan, adopted by the Board of Commissioners, is intended as an all-inclusive plan for Columbia County. The Plan includes information about transit, pedestrian, and bicycle transportation in its transportation section, summarized here.

- Bus
  - Companies and organizations providing bus services at the time included Greyhound, Jenson Transportation of St. Helens, and Colco Transportation.
- Bicycle and Pedestrian Transportation
  - The County currently has two bike paths. One runs along Old Portland Road in St. Helens and the other is in Columbia City. Another path has been discussed, which would link St. Helens with Columbia City.
  - The majority of inter-city bicycling is recreational travel.
  - Pedestrian travel is primarily limited to areas inside cities and rural neighborhoods.
  - Pedestrian travel is unlikely to serve a large portion of the County's overall intercity travel demand.
- Transportation Objective
  - 1. To utilize the various modes of transportation that are available in the county to provide services for the residents.
- Transportation Policies
  - 10. The County will study proposals, when presented, to develop modes of transportation as an alternative to the automobile. If these proposals prove to be feasible, the County will work to implement them.

- 11. Columbia County will continue to support the efforts of COLCO Transportation to supply public transit to the citizens of the County.

- 12. Special attention will be given to the needs of the handicapped whenever the County considers a proposal for the provision of public transit.

Columbia County Transportation System Plan (June 1998)

The Columbia County Transportation System Plan (TSP) provides the framework to guide development of the transportation system in the rural areas of Columbia County. All modes of transportation are considered in this TSP.

Existing Needs of the Transportation System

- Bicycles

  - The narrow shoulder on some county roads restricts bicycling opportunities. The TSP suggests that wider shoulders or the provision of bike lanes be considered on several facilities including:

    - Old Portland Road from US 30 and Scappoose

    - Old Highway 30 west of Rainier

- Pedestrian

  - The need for wide shoulders and/or sidewalks is identified along roadways located in areas between existing city limits and urban growth boundaries, to provide greater pedestrian safety and to encourage walking.

- Transit

  - Commuting by bus or carpool has the potential to increase if adequate services and facilities are provided.

  - Columbia County had no official park-and-ride lots; however, informal park-and-ride activity was observed along US 30 corridor, south of Scappoose, and west of Rainier.

  - Designated park-and-ride lots are proposed along the US 30 corridor. The most desirable locations for park-and-ride lots are Wonderly Road at US 30 and south of Scappoose near the county line.

Future Conditions and Transportation Alternatives

- Pedestrian and Bicycle Movement

  - Improved facilities could lead to increased usage both for utilitarian and recreational trips.

- Transit
  - The experiences of Colco Transportation with fixed route services in the mid-1990s indicated low transit demand in rural areas and cities along Highway 30 corridor.
  - For commute travel, ridesharing and vanpools could prove best-suited for Portland and Washington County destinations.

Future Transportation Demand

- Bicycles and Pedestrians
  - Projects to widen shoulders or add bike lanes will improve the attractiveness and safety of these modes.
- Transit/Transportation Demand Management
  - The most important priority of future transit and TDM needs is to establish park-and-ride lots along the US 30 corridor, which would be served by new express bus service. Future park-and-ride lots should be located at:
    - Multnomah/Columbia county line
    - Highway 47 south of Vernonia
    - Highway 30 near Wonderly Road

Transportation System Plan Recommendations

- Transit Plan
  - Transit planning should coordinate with the Transportation Demand Management program that manages corridor capacity.
  - Develop various park-and-ride locations in the county to support the formation of carpools and convenience of transit alternatives.
  - Colco Transportation should routinely plan for expanded transit services.
  - Restoration of transit service must await additional funding and increased demand.
- Pedestrian and Bicycle Plan
  - The Pedestrian and Bicycle Plan provides for improved facilities in the Highway 30 corridor and selected county roads.
  - The Highway 30 improvements support the Portland to the coast bike route designation by providing connectivity among the county and the cities.

Columbia County Road Standards (August 1996)

This document specifies requirements and provides standard drawings of sidewalks. However, there is no information specific to the transit or bicycle modes in this document.

Columbia County Transportation Coordinated Human Services Public Transportation Plan "Coordinated Plan" (September 2007)

The Coordinated Plan aims to improve transportation services for individuals with disabilities, seniors, and lower incomes ("special needs populations"). The Plan includes the following key elements:

- An evaluation of Columbia County transportation resources available to special needs populations.
- A summary of the results of a survey of special needs populations:
  - Seniors and low-income residents seem to have more transportation options than the disabled.
  - There is a need to have increased transportation services available for all special needs populations.
  - Recommendations for improved public transportation in Columbia County for these populations include: an increase in the number of routes outside the county; more routes within each city; establishment of intracity routes and routes between cities; additional pick-up times; additional stops; and extended hours-evenings and weekends.
  - An additional barrier to use of public transit among the special needs population is lack of top-of-mind awareness of the existing Columbia County rider system-fixed routes and the ability to call for a ride.
- Personal interviews were conducted with agencies and entities serving special needs populations. The Plan summarizes the key points from these interviews. Agencies serving these populations strongly advocate for increased transportation services for these Columbia County residents.
- Current coordination activities addressing gaps and improved efficiency in service delivery are discussed in the Plan. The Plan also lists strategies from Regional Stakeholder Meetings, Transit Advisory/Stakeholder Meetings, and surveys with special needs residents and agency services providers:
  - More frequent service, more local transportation loops, more stops.
  - Weekend and evening service.
  - Expanded demand responsive service (e.g., an additional driver in Rainier/Clatskanie).

- Added buses for the increasing volume of workers using Columbia County Rider would allow the buses to be used for demand response service during the middle of the day for special needs populations.
- An analysis of current Dial-a-Ride service (origin/destination).
- Projections of the aging population and corresponding demands on public transportation: people going into Portland for drug treatment programs, seniors and medical services.
- Increased marketing to special needs populations.
- Connections with the Veterans van from Clatsop County.
- Emergency evacuation procedures for transportation disadvantaged populations.
- More and better coordination with cabs.
- Add Community Action Team and the senior centers to fixed route schedules.

■ The Plan further explores the relative priorities of the strategies and lists FY 07/09 Discretionary Grant priorities for the targeted populations.

■ Finally, the Plan discusses the areas with opportunities for future partnering and collaboration between relevant organizations/entities.

Columbia County Countywide Community Transit Plan (February 2004)

This plan was developed by Columbia County in 2004 to develop a program to use resources as efficiently as possible and meet various needs throughout the County as well as possible with limited resources.

■ Existing Conditions

- Existing Service: Until June 2003, the Columbia County Council of Senior Citizens, Inc. provided general public transportation in the County under the name COLCO Transportation. They provided public dial-a-ride service throughout the County with buses stationed in Scappoose, St. Helens, Rainier, Vernonia and Clatskanie. COLCO ceased its service in 2003 after ODOT discontinued providing state and federal funding for the service because COLCO was not meeting federal and state requirements. Columbia County issued a Request for Proposals for an interim provider of public transit services and contracted with Metro West Ambulance, Inc. to provide fixed-route and Demand-Response services between St. Helens and Portland and service in Clatskanie, Rainier and Vernonia. It contracted with Scappoose Senior Citizens, Inc., for service in St. Helens and Scappoose.
- Other transportation service providers in the County include:

- St. Helens Taxi and Shuttle provides rides with a fleet of 7 vehicles, one of which has a lift.

- First Student and Curls Transportation are the school transportation providers in the County.

- Riders Only has one car that it uses primarily to provide Medicaid trips through NW Ride Center, which brokers Medicaid ride services in Columbia County. It operates in Rainier and Clatskanie.

- Riverside Training Center has a fleet of 11 vehicles that it uses to transport its clients from group homes to worksites and other activities.

■ Survey, Community Meetings, and Stakeholder Interviews

• Survey: A survey was conducted to gain insights about the transportation needs of Columbia County residents. Because of limited resources, the County was unable to conduct a telephone survey that would yield a random sample. Instead, copies of the survey were distributed to the senior centers in each of the five cities in the County, to RSVP, to COLCO, to the libraries and city halls in each city, to the St. Helens Human Services offices, and to the Community Action Team (CAT) and religious organizations in each city. The survey was also available on-line through the County's website. The results of this survey do not necessarily reflect the opinions of the community as a whole. The survey asked questions about travel patterns, difficulties traveling within and out of the County, and the types of services needed.

• Community Meeting: The County sponsored six community meetings, including one for parents of children who used COLCO to get to daycare and/or school. These meetings were held in Rainier, St. Helens, Scappoose, Clatskanie, and Vernonia. The forums were used to obtain in-depth perspectives from the community to see if the data reflected their local mobility needs.

• Stakeholder Interviews: Interviews were conducted with caseworkers, senior and disabled advocates, local businesses, policy makers and elected officials, transportation providers and low-income advocates and programs. The stakeholders were asked about problems in meeting transportation needs, potential opportunities, barriers to coordination, informal networks, and suggested solutions. The interviews took place before COLCO ceased providing service in Columbia County. Therefore, most of the comments focused on concerns about COLCO and may or may not still be relevant.

• The major observations from these community involvement efforts were:

- Over 50 percent of the people who responded to the survey said they had missed activities because of a lack of transportation. The most frequently identified activity in all five communities was shopping. A significant number also mentioned missed medical appointments.

- When asked to choose the one most needed additional transportation service, the single most frequently selected option was more general public transportation (37 percent of respondents); however 24 percent identified commuter service to Portland and 13 percent chose more frequent trips to Portland. The implied difference between these two choices is frequency and scheduling of trips.

- Many potential riders do not know about the service or have been unable to get rides and have stopped requesting them.

- Transportation services must meet the needs of several groups, including not only those who need to get to medical appointments, shopping or personal business, but those who need to commute regularly to Portland or Longview/Kelso for work or school.

- Except for those who wanted to use the service daily, most COLCO riders did not think the fare was too high.

■ Goals

- Provide lifeline transit service focusing on the needs of the elderly, disabled and transportation disadvantaged. Transportation disadvantaged refers to people who are unable to provide their own transportation as a result of a disability, an age-related condition, or an income constraint.

- Provide sustainable cost effective service to as many people as possible.

- Create opportunities to leverage and add additional resources to the program.

■ Organizational Structure and Governance

• Until May 2003, transit services were provided through COLCO Transportation, a service of the Columbia County Council of Senior Citizens, Inc. The County contracted with the council to provide this service and funneled state and federal funding to it for the provision of the service. With ODOT's decision to withdraw funds from the COLCO service, Columbia County needed to determine the best approach for the organization and governance of transit services. Governance and organizational options included:

- County oversees service but contracts out administration and service provision.

- County establishes a quasi-public organization and passes funds through to it to contract with providers.

- County oversees, administers, and provides transit services.

- County passes through funds to a non-profit or other public entity to provide service.

- Establish a transportation district, with district boundaries set to reflect service areas.

- The first two options were viewed as being the most feasible. Both would require the County to appoint a transit advisory or oversight committee/board. The Plan recommended that it consist of the following:
    - Representative(s) of senior citizen centers
    - Representative of a senior advocacy group
    - Senior citizen user of transit
    - Representative of disability advocacy or support group
    - Representative of county social service agency (case worker for example)
    - Disabled citizen user of transit
    - Appointed representatives of Vernonia, Scappoose, St. Helens, Clatskanie, Rainier
    - Representative from Community Action Team
    - Representative from a community organization such as Turning Point Food Shelf
    - Non disabled/elderly user of transit
- The Plan recommended that the committee should meet at least bi-monthly. It would advise the Columbia County Board of Commissioners on funding applications, complaints and requests for service, changes in service, and other issues related to the provision of transit service. This advisory committee could also fill the role of the Special Transportation Fund (STF) Local Advisory Committee, whose role it is to advise and assist the governing body in carrying out the purposes of the STF.

■ Service Improvements

- Columbia County must develop ways to improve efficiency while meeting the needs of all types of riders. This section of the Plan identified necessary service improvements as well as methods to improve efficiency.
    - Ideally each community should receive 10 to 11 hours of service a day from about 7 AM to 6 PM so that commuters can use this service. At the time, the County did not have the funding to offer this level of service. Therefore, it should seek additional funding to expand the number of hours of service it can provide.
    - Columbia County should coordinate service in Clatskanie/Rainier and Scappoose/St Helens through the use of a technique called zone routing during the time that these communities do not have high demands of transit. A zone or flex route is a hybrid of a fixed route and a demand-response service.

- In the Clatskanie/Rainier area, there should be three daily round trips—morning, midday and afternoon—to Longview/Kelso. These trips should originate and end in Clatskanie, drop off and pick up riders in Rainier, and then travel on to Longview.
- Columbia County may find ways to share services between St. Helens and Scappoose in the same way.
- The Portland-St. Helens route should be used whenever possible for riders going into the Portland area. The transit service can provide feeder transit services to the fixed route. At a minimum, the Portland service will offer an early morning, midday and late afternoon service that travelers can use.
- To maximize the amount of service that can be provided in Vernonia, the only service going into the greater Portland metro area should be to Hillsboro.
- The Columbia County transit service should make an effort to put Medicaid riders on existing service and should not make special trips outside of the county. The provider may still use a County-owned vehicle, but the ride will be paid for by the NW Ride Center and will be beyond the contract between the provider and the County.

■ Coordination with Other Services and Programs

- Columbia County should coordinate and share resources where possible with other providers (e.g., churches, veterans van, assisted living facilities) and programs:
  - The County may also need to work with parents of children who need to get to daycare or school and do not have access to school bus transportation.
  - Some parents voiced concerns about unsafe intersections along the routes to school. The City Public Works and Police departments are valuable partners in designing safe routes to school. In addition, stationing a volunteer crossing guard at these particular intersections assists in the level of safety around schools.
  - Columbia County should work with programs, including the Scappoose Senior Center and other service organizations that have volunteer drivers, to expand availability of service. It should also explore opportunities to set up vanpool or carpool programs.
  - Columbia County transit services should also work with private for profit providers such as St. Helens Taxi, especially for services the county cannot provide.

■ ADA Issues

- It was recommended that the Portland service deviate within ¾ mile in either direction of its route within Columbia County to pick up people whose disabilities make it impossible for them to get to the bus stops.

■ Increase Number and Diversity of Ridership

- The new County service should implement fare decreases and a comprehensive marketing program to bring riders back and attract new ones.
    - The plan recommended a simplified, less costly fare structure.
    - A marketing campaign to educate and attract riders to the service is essential.

CITY AND LOCAL JURISDICTION PLANS

Rainier Comprehensive Plan (2003)

- Goal 2: Land Use Planning: To establish a land use planning process and policy framework as a basis for all decisions and actions related to the use of land, and to assure an adequate factual basis for such decisions and actions.
    - Policies:
        - Central Business District (CBD): allows mixed uses including a limited range of attached housing, retail, service and office commercial, and public recreational uses in a well-designed, pedestrian-oriented manner so as to promote a vital downtown Rainier.
- Goal 8: Recreational Needs: To satisfy the recreational needs of the citizens of the State and visitors.
    - Policies:
        - 1. The City will create a Parks Plan for the urban growth area. The plan will consider options such as establishment of a system of pedestrian and bicycle trails and the need for parks in different areas of the City.
- Goal 12: Transportation: To provide and encourage a safe, convenient, and economic transportation system.
    - Policies:
        - 1. The City will coordinate with the Oregon Department of Transportation (ODOT) on the Highway 30 Corridor Study. In particular, the City will advocate consideration of the following local issues as part of the larger corridor study:
            - a. Need for improved pedestrian access along and across US 30 in Rainier.
        - 10. The City will support efforts to increase the availability of public transit to the residents of Rainier. This may include the extension of bus service to Rainier from Longview.
        - 11. The City will implement the TSP to achieve a multi-modal transportation system including highway, rail, water, public transportation, and pedestrian and bicycle

facilities. Rainier's varied transportation facilities can be leveraged to attract new development to the community.

- Transportation System Plan Policies
  - B. Policies for Protection of Transportation Facilities
    - The City of Rainier wishes to protect future operation of the Highway 30 corridor, including the highway, pedestrian and bikeways and the rail line. The City also seeks to protect existing and planned transportation systems by continuing coordination with other relevant agencies, adhering to the road standards and following the access management policies and other measures contained in the Plan.
  - C. Policies for Pedestrian and Bicycle Circulation
    - The City of Rainier wishes to plan and develop a network of streets, accessways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within the community. It is the policy of the City to:
      - 7. Give priority to developing pedestrian and bicycle access to major activity centers within the Urban Growth Boundary, such as the downtown, schools, and community centers.
      - 8. Design and construct bikeways and pedestrian access ways to minimize potential conflicts between transportation modes.

City of Rainier Transportation System Plan (September 1997)

The Rainier TSP includes a pedestrian and bicycle mobility plan and a transit plan.

- Pedestrian Plan
  - Provide a safe and attractive environment for walkers, primarily through good sidewalks and pedestrian crossing locations.
  - Upgrade and infill sidewalks to include continuous east-west sidewalks along existing and proposed sections of the following streets:
  - A Street,
  - US 30/ B Street,
  - C Street,
  - Dike Road,
  - E Street (part)

- A new greenway along the Columbia Riverfront will provide a shared-use path, and good connections to downtown

North/south connections will be improved on:

- Rockcrest Street,
- Mill Street,
- W 7th/Fernhill Drive,
- W 4th/DeBast Road,
- E Second Street, and
- E Fifth Street.

■ Bicycle Plan

- Provide bicycle facilities primarily in the east-west direction.
- Focus the bike plan on the facilities on US 30/B Street as part of the Columbia River Highway bikeway.
- Construct Columbia River greenway to provide link along the river's edge between Rockcrest Street and First Street.
- C Street between Fernhill Drive and E Fifth Street will be signed as a bicycle route for traffic accessing the elementary school and middle school.
- A signing program will be considered on any routes that are identified as serving bicycle trips.
- Bicycle Plan elements are outlined below:

  On-Street Bike Lanes

  - US 30/ B Street from E. City Limit to W. City Limit: 1 section
  - Rockcrest Street from A Street to US 30: 2 sections
  - Mill Street from Dike Road to US 30: 2 sections

■ Transit Plan

- Improve paratransit service in Rainier.
- Work actively with Columbia County Transit to promote and improve the service connecting Rainier to TriMet's route #17 (Sauvie Island).

- Increase the Rainier fleet (ColCo paratransit buses) by two or three vehicles in the next twenty years, not including vehicle replacement, to support the growing population.
- Coordinate with the Cowlitz Transit Authority to assess the viability of a regularly scheduled connection between Rainier and Longview/Kelso.
- Focus intercity transit stops on US 30 in the proximity of First Street.

Clatskanie Transportation System Plan (August 1997)

The Clatskanie Transportation System Plan includes a pedestrian and bicycle mobility plan and a transit plan that are pertinent to CCCTP.

■ Pedestrian Plan

- Promote pedestrian travel by providing safe and efficient facilities for the use of residents, in particular connecting the pedestrian trip generators.
  - Upgrade and infill sidewalks along existing sections of US 30.
  - Install a new pedestrian crossing at Belair Drive & US 30 intersection.
  - Build a new pedestrian/bicycle bridge between Highway 47 near the Orchard Street intersection with Belair to avoid pedestrians having to walk to the US 30 intersection.
  - Connect Whispering Woods development with NE 5th Street with a new pedestrian trail to avoid people having to walk along US 30 to travel into town.
- Pedestrian Plan elements are outlined below:

  <u>Sidewalks</u>

  - US 30 from NW UGB to E UGB: first decade project (ODOT Plan)
  - NW/NE 5th Street from NW City limit to E City Limit: first decade project
  - Belair Drive from US 30 to Chestnut Street
  - Nehalem Street from NW 5th Street to NE 8th Street: first decade project
  - Bryant Street from US 30 to SW 7th Street: first decade project
  - Tichenor Street from US 30 to W 7th Street: second decade project

  <u>Bridges/Trails</u>

  - Trail from City street to Whispering Woods: first decade project (to avoid having pedestrians on US 30)

Pedestrian Crossings

- US 30/ Belair Drive: second decade project
- US 30/ Van Street: first decade project

■ Bicycle Plan

- Supplements, rather than replaces, the elements developed in Clatskanie's Bicycle Transportation Plan (March 1995), which are summarized below.
- Put in place a continuous system that links the primary trip generators that is attractive and safe to use.
  - Posted routes
  - On-street bike lanes
  - Separated bicycle trails
- Focus the bicycle plan on east-west streets, including facilities on US 30 as part of the Columbia River Highway bikeway, NE/NW 5th Street, and Nehalem Street.
- Bicycle Plan elements are summarized below:

  On-Street Bike Lanes

  - US 30 from NW UGB to E UGB: first decade project (ODOT plan)
  - NE/NW 5th Street from Beaver Falls Rd to E UGB: first decade project
  - Nehalem Street from NW 5th St to Conyers Creek Rd: first decade project
  - Belair Drive from US 30 to Chestnut St: first decade project

■ Transit Plan

- Utilize demand-responsive or paratransit in Clatskanie area.
  - Increase two or three vehicles, in addition to replacement of old vehicles, to support the growing population in this area.
  - Support COLCO in investigating coordination of service between Clatskanie, Rainier, and Sauvie Island with a possible Cowlitz Transit Authority connection between Rainier and Longview/Kelso.
  - Develop the terminal for transit service in Clatskanie on North Nehalem Street in the section between US 30 and the Clatskanie River bridge

Scappoose Transportation System Plan (December 1997)

The purpose of this Plan is to provide a community-based multi-modal transportation system that addresses transportation needs to the year 2015 associated with anticipated future growth in the Scappoose urban area. The Plan is intended to serve as a guide for the management of existing transportation facilities, and for the design and implementation of future transportation facilities.

- Goals and Objectives
  - Goal 1: Enhance Transportation User Safety
    - B. Provide safe east-west crossings across Highway 30 for pedestrians and bicyclists.
    - C. Provide safe access to schools located in the proximity of Highway 30, specifically in relation to access by school children using crosswalks across Highway 30.
  - Goal 3: Increase the Use of Alternative Travel Modes Through Improved Safety and Service
    - A. Develop a bicycle and pedestrian facility network.
    - B. Provide safe east-west access for pedestrians and bicyclists across Highway 30.
    - C. Provide pedestrian and bicycle access, especially when direct motor vehicle access is not possible.
    - D. Evaluate the need for bike paths, including the Scappoose Creek Greenway.
    - F. Evaluate the need for passenger rail transportation and other mass transit alternatives for travel to Portland and Astoria, for commuting and recreation purposes.
    - G. Identify the need for a carpool/vanpool program for reducing commuter vehicular travel demand along Highway 30 (to Portland).
- Transportation System Plan
  - Bikeway Plan
    - While all streets in the Scappoose urban area should accommodate safe travel by bicyclists, a bikeway network providing a higher level of service for bicyclists should be implemented along all designated arterial and collector streets to encourage bicycle use.
    - Where separate bike lanes are recommended, they should be provided on each side of the road and be five or six feet wide.
    - The bikeways on new streets or streets to be improved as part of the street system plan shall be added when the improvements are made.
  - Pedestrian Facilities Plan

- An upgrade of existing facilities and an expansion of the sidewalk system is planned to help bring the mode share for journey-to-work trips above the national average, and also more importantly increase the use of walking for non-work trips.
- Sidewalks are currently provided along the west side of Highway 30, south of High School Way, and on both sides of Highway 30 north of High School Way.
- Sidewalks are required on both sides along all streets within the urban growth boundary to meet the requirements set forth in the street design standards. Sidewalks and walkways should be required in new developments in the municipal area and they should be provided in connection with most major street improvement projects.
- A complete pedestrian system shall be implemented in the city. Every paved street shall have sidewalks on both sides of the roadway meeting the requirements set forth in the street standards.

- Public Transportation Plan
  - COLCO transportation provides demand-responsive bus service for elderly and disadvantaged citizens in the county for travel to Portland, St. Helens, and throughout Scappoose.
  - No inter-city transit service is provided to Scappoose.
  - Without intercity bus service, Scappoose's transportation system does not follow the guidelines of the Oregon Transportation Plan (OTP).
  - It is likely that inter-city transit service along Highway 30 will be re-instituted in the next one or two years. In addition, there may be an increasing need for on-demand transportation services as the area population grows.
- Transportation System Improvements Project List
  - Maple Street, Highway 30 to First Street W: Restripe existing pavement to provide bike lanes
  - Maple Street, Highway 30 to First Street W: Provide curb, gutter, and sidewalks on both sides
  - E.M. Watts Road, Highway 30 to Fourth Street: Widen to 44-foot-wide urban cross section
  - High School Drive, Highway 30 to Sixth Street E: Add sidewalks and restripe with bike lanes
  - Highway 30 and Williams Street: Provide Pedestrian Island in highway median

- J.P. West Road, Highway 30 to First Street W: Widen to 36-foot-wide urban cross section
- Old Portland Road, UGB to Highway 30: Widen to 44-foot-wide urban cross section
- Walnut Road, Highway 30 to Old Portland Road extension: Restripe existing pavement to provide bike lanes
- Maple Street E, Highway 30 to Fourth Street E: Widen to 36-foot-wide urban cross section
- Columbia Avenue E, Highway 30 to Fourth Street E: Widen to 36-foot-wide urban cross section
- Forest Road, Highway 30 to West Lane Road: Reconstruct as new 44-foot-wide urban cross section
- Williams Street, Highway 30 to First Street W: Construct new 36-foot-wide urban cross section
- Scappoose-Vernonia Highway, Highway 30 to UGB: Widen to 36-foot-wide urban cross section
- West Lane Road, Forest Road to Highway 30: Widen to 44-foot-wide urban cross section
- North Park Drive, Six Street E. to Highway 30

St. Helens Comprehensive Plan (February 2006)

- 19.08.040 Transportation goals and policies.
  - (1) Preface. Transportation is all about moving people, goods and services within a defined geographic area. The city of St. Helens is like many communities which have started with a small area and expanded into areas with county-type roads. Many of our roads are gravel and many are substandard based upon current requirements. Overall the system of roads, bike paths, and pedestrian paths serves the community adequately in most areas. There are some areas lacking in pedestrian paths between new developments and existing developments. Most of the transportation system is addressed in the public facilities plan, and there are general schedules and estimated costs for bringing the transportation facilities into compliance with current standards.
  - (2) Goals:
    - (j)To encourage energy-conserving modes of transit.
    - (k)To increase appropriate walking and bicycling opportunities.
  - (3) Policies:

- (j)Develop a plan for walking trails.
- (k)Maintain, implement, and update the bikeway plan.
- (m)Encourage increased opportunities for public local and regional transit facilities. (Ord. 2980 § 2, 2006)

St. Helens Transportation System Plan (June 1997)

- Goal: Transportation: Develop a transportation plan to manage future transportation needs and prolong the useful life of the existing transportation system.
  - Objective
    - Improve safety for all modes of transportation
    - 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.
    - Improve town continuity by providing safe and easy access to and across Highway 30 and railroad crossings for all modes of transportation.
    - Improve public transportation opinions in St. Helens as well as to other areas.
    - Promote alternative modes of travel (such as pedestrian and bicycle) and connections to those modes to reduce vehicle miles of travel.
- Future Transportation Needs
  - Public Transportation Needs: 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 operations of its current local dial-a-ride service. There will be a future need for increase intercity public transit between Columbia City/St. Helens and Portland.
  - Bicycle Transportation Needs
    - Bicycle networks should be developed and promoted in all urban areas to provide safe, easy, and convenient access to all major employment, shopping, educational, and recreational destinations in a manner that will double person trips by bicycle.
    - Secure and convenient bicycle storage available to public should be provided at all major employment and shopping centers, parks 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.

- Transportation System Plan
  - To encourage more walking, the City must provide a continuous network, provide a safe walking environment, and ensure pedestrian-oriented urban design. This section also discusses proposed pedestrian facility improvements, sidewalk standard and policies, and pedestrian street crossings.
  - Bikeway System Plan: The 1989 St. Helens Bikeway Master Plan outlined a number of objectives to guide the City's bicycle system. The plan identifies seven objectives:
    - Complete the bikeway in the Old Town area which will tie in with the existing routes in the downtown area.
    - Provide a safe system of bikeways which will be a showcase for St. Helens.
    - Provide a system of bikeways which will link major community centers with residential areas.
    - Provide bikeways in the residential areas west of Highway 30 that will provide access to schools and parks and eventually tie in with the existing routes on the east side of Highway 30.
    - Provide for maintenance of bicycle facilities.
    - Provide adequate areas for parking bikes for those uses that attract bicycles.
    - Minimize unsafe conflicts between bicycles, pedestrians, and motorized traffic.

    This section also outlined the proposed bicycle facility improvement projects and discusses the bicycle standards and policies.
  - Public Transportation Plan
    - Intracity Transit: The City should continue to support COLCO's dial-a-ride service in the county, and actively participate and financially support any expansions and added service improvements by COLCO.
    - Intercity Transit: A transit feasibility study from 1996 determined 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 study recommends that a "Vanpool Service" be implemented between St. Helens/Columbia City and Portland. It is recommended that this service be expanded to an all-day service, with connections to the St. John's Transit Center.
- Transportation System Plan Implementation
  - Pedestrian Improvement Projects

First 5 Years

- Gable Road Sidewalks (Highway 30 to Bachelor Flat Road)

Years 11-20

- Pittsburg Road Sidewalks (Highway 30 to Vernonia Road)
- Vernonia Road Sidewalks (Highway 30 to Pittsburg Road)
- Columbia Boulevard Sidewalks (Highway 30 to Sykes Road)
- Millard Road Sidewalks (Highway 30 to Ross Road)
- Gable Road Sidewalks (Old Portland Road to Highway 30)

Tied to Development (no exact time frame)

- Achilles Road Sidewalks (Highway 30 to Millard Road)

- Bicycle Improvement Projects

First 5 Years

- Gable Road Bike Lanes (Highway 30 to Bachelor Flat Road)

Years 11-20

- Pittsburg Road Bike Lanes (Highway 30 to Vernonia Road)
- Vernonia Road Bike Lanes (Highway 30 to Pittsburg Road)
- Columbia Boulevard Bike Lanes (Highway 30 to Sykes Road)
- Millard Road Bike Lanes (Highway 30 to Ross Road)

City of Columbia City Comprehensive Plan (June 2003)

■ II. Inventories of State Goals

- J. Transportation: To provide and encourage a safe, convenient, and economical transportation system.
  - 1. Motorized Transportation: School buses serve the needs of the local school district. COLCO Transportation is a nonprofit corporation operated by the Columbia County Council of Senior Citizens and has provided transportation services since 1969.
  - 2. Bicycle and Pedestrian Transportation: Bicycle and pedestrian transportation are energy-efficient forms of transportation; however, the wide distribution of services and

jobs and the distances between the towns are limiting factors. As part of the Highway 30 reconstruction project, a bicycle path was reconstructed adjacent to Highway 30 north of "E" Street and extended to the northern edge of the city. Completion of this project provides a continuous bicycle route along the entire length of the City.

- III. Goals and Policies
  - K. Transportation: The goal of the City is to implement the adopted transportation system plan in order to manage future transportation needs and prolong the useful life of the existing transportation system. The policy of the City for transportation shall be to:
    - 4. Promote activities furthering traffic and pedestrian safety (such as signalized intersections and crosswalks), especially along the Columbia River Highway.
    - 8. Continue to support the efforts of COLCO Transportation to supply public transit to the citizens of Columbia City.
    - 9. Special attention will be given to the needs of the handicapped and other transportation disadvantaged individuals whenever the City considers a proposal for the provision of public transit.
- K. Energy Conservation
    - 2. Encourage car and van pooling programs
    - 3. Promote pedestrian and bicycle transportation within the City.

City of Columbia City Transportation System Plan

- 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.
    - 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.

- Future Transportation Conditions and Needs

  - Public Transportation Needs: 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 operations of its current local dial-a-ride service. There will be a future need for increase intercity public transit between Columbia City/St. Helens and Portland.

  - Bicycle Transportation Needs:

    - Columbia City currently has one designated bicycle route. The route connects the Rutherford Road Parkway to bicycle lanes along Highway 30.

    - As part of the Highway 30 reconstruction project, a separate bicycle route is being developed adjacent to Highway 30 north of "E" Street.

    - Residential growth west of Highway 30 will create more automobile traffic and increase the demand for designated safe bicycle routes.

    - 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.

- Transportation System Plan

  - Pedestrian System Plan: The City must emphasize walking as a major means of travel.

    - Pedestrian Facility Improvement: The Pedestrian Plan recommends a continuous sidewalk system in good repair that connects neighborhoods with schools, parks, community centers, and the waterfront.

    - Sidewalk Standards and Policies: To enable a connected and complete pedestrian system, sidewalks must be considered at inception of transportation projects and incorporated into the total design.

    - Pedestrian Facility Improvement projects are listed below:

      <u>Sidewalks</u>

      - "I" Street from Highway 30 to Second Street (both sides)

      - "E" Street from Highway 30 to The Strand (north side only)

      - "E" Street from Sixth Street to Highway 30 (both sides)

- "A" Street (Both Sides, to be completed as part of the road reconstruction project)
- Pacific Street (North Side Only, to be completed as part of the road reconstruction project)
- Pedestrian Path from Sixth St/"K" St Intersection to sidewalk on Hwy 30

- 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. The plan calls for keeping the current designated bicycle route on the east side, from Rutherford Road Parkway to the Highway 30/"E" Street intersection along existing City streets.
  - Bicycle Facility Improvements: The bicycle plan recommends several improvements to the City's bicycle networks and system.
    - New bicycle trail connecting the Highway 30 trail to Sixth Street.
- Public Transportation Plan
  - Intracity Transit: The City of Columbia City should continue to support COLCO's dial-a-ride service throughout Columbia County.
  - Intercity Transit: A recent transit feasibility study has determined 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 study recommends that a "Vanpool Service" be implemented between St. Helens/Columbia City and Portland. It is recommended that this service be expanded to an all-day service, with connections to the St. John's Transit Center.

City of Vernonia Transportation System Plan (July 1999)

■ Future Conditions

- Public Transportation Services
  - Currently, transit service is provided on demand to Vernonia residents by Colco Transportation.
  - For the planning horizon, the dial-a-ride van service will serve rural transit demands effectively and economically.
  - The City of Vernonia will work with Columbia County to set up vanpools and rideshare matching services for commuter travel.
  - The County reports that the establishment of formal park-and-ride lots is an important priority.

- One of the three future park-and-ride lot locations sited by Columbia County is on Highway 47 south of Vernonia.

■ Transportation System Plan

• Bicycle System Plan

This TSP identifies several bicycle system improvements:

- The first major improvement is the development of street design standards and recommended upgrades throughout the study area.
- An alternate was developed for the congested downtown area by providing a bikeway one block south of the highway.
- Maple Street, which runs parallel to and south of Bridge Street, will be designated bike route through the downtown area.
- Identify safety hazards and alleviate them to encourage bicycling.

• Pedestrian System Plan

The City of Vernonia recently completed a Downtown Revitalization Plan. The pedestrian improvements include:

- Intersection crossing improvements
  - Curb extensions at intersections to shorten crossing distances and improve visibility
  - Well-defined crosswalks
- Improvements to the pedestrian environment
  - Continuous street trees spaced at consistent intervals
  - Flowering trees at intersections
  - Sidewalk and furniture zones that create separation from each other
  - Ornamental lighting
  - Improved street furnishings
  - Improved gathering spaces
- Traffic management
  - Curb extensions that define parking zones and provide traffic calming.

- Public Transit System Plan

  - It is recommended that the City support and encourage this service in any manner it can, as it is the only service available to the transportation disadvantaged. No additional service is recommended.

  - It is recommended that the City of Vernonia work with Columbia County in setting up vanpools and rideshare matching services for commuter travel.

  - One of the three future park-and-ride lot locations sited by Columbia County is on Highway 47 south of Vernonia. When this lot is operational, the City should assess the demand for a peak hour fixed route bus service through the City to the park and ride lot.

Section 3
Transit Design Toolbox

Transit Design Toolbox

This document provides a set of tools and decision-making criteria for siting and designing bus stops and park–and-ride facilities along the US 30 corridor in Columbia County. The Toolbox will be used in later tasks as part of the US 30 Transit Access Plan to evaluate potential bus stop and park–and-ride locations and determine appropriate design features for existing and proposed transit facilities.

To prepare this Toolbox, Kittelson & Associates, Inc. reviewed several documents related to bus stop and park-and-ride facility design. The primary documents providing material for the Toolbox are:

- *TCRP Report 19: Guidelines for the Location and Design of Bus Stops*
- *Easter Seals Project ACTION Toolkit for Assessment of Bus Stop Accessibility and Safety*
- *TriMet Bus Stop Guidelines*
- *Oregon Department of Transportation Highway Design Manual (HDM)*

Overall, the review of the existing literature indicates that there are five major design considerations that must be considered when planning and designing bus stops to improve transit access:

- Transit operations
- Customer information and wayfinding
- Stop accessibility
- Safety
- Comfort and convenience

These five topic areas are each addressed in detail in the following sections. In addition to the specific design criteria discussed below, it is important that siting and design of all transit facilities is coordinated with local jurisdictions to ensure that new facilities meet applicable code and design standards, and that new development takes transit needs into account.

TRANSIT OPERATIONS

This section considers aspects of bus stop location and design related to transit operations. These design considerations assess the function of a facility from the transit operator's perspective, to ensure that transit vehicles can access and exit the transit stop as safely and efficiently as possible. Facility design from the perspective of transit customers is considered in the following sections.

Stop Spacing

Bus stop spacing is typically based on prevailing land uses along a corridor. In general, longer stop spacing increases the speed and reliability of transit service, while more closely spaced stops

increase access to land uses along the transit route. Thus, more densely developed areas require more stops, while less dense areas require fewer stops to serve passengers.

The HDM provides typical bus stop spacing, as shown in Table 1. The majority of the US 30 corridor falls in either the Urbanizable/Suburban or Unincorporated Communities/Rural Lands categories, indicating that most stops along the corridor should be placed relatively infrequently. However, within the urbanized areas along the corridor (i.e. Scappoose, St. Helens, Rainier, Columbia City and Clatskanie) more closely spaced stops may be needed to adequately serve transit destinations.

Table 1
Typical Bus Stop Spacing

Area	Spacing Range (feet)
Central Business Districts and Special Transportation Areas	330 – 1,000
Urban/Developed Areas, Commercial Centers, and Urban Business Areas	650 – 1,300
Urbanizable/Suburban Area	740 – 2,300
Unincorporated Communities/Rural Lands	As Needed

Stop Type

Due to high prevailing speeds and traffic volumes along most of the US 30 corridor, transit stops where buses stop entirely or partially within the travelway are not typically advisable. It is preferable to have stops located to allow transit vehicles to fully exit the highway right-of-way and stop on a local street or park-and-ride, as is currently done at most of the existing stops along the corridor. However, in lower-speed environments within incorporated areas, or in higher-speed sections where wide shoulders currently allow vehicles to fully exit the travelway to pick up and drop-off passengers, on-highway stops may be appropriate. Alternatively, bus pull-outs that allow transit vehicles to exit the travelway may be established where right-of-way is available.

According to the HDM, pullouts beyond the travel lanes or transit stops off of the highway should be considered when any of the following conditions occur:

- Average vehicle speed exceeds 40 mph;
- Traffic in the curb lane exceeds 250 vehicles during peak hour;
- High-crash rate, particularly rear-end crashes;
- More than 5 buses per hour;
- Passenger boardings exceed 30 per hour; or
- Transit provider desires an area for bus layover.

Figure 1 Example Bus Pull-out on Rural Highway

In locations where curbside stops are appropriate, bus stops are generally located at intersections where they may be placed either near-side or far-side. Stops that are not located at intersections are known as mid-block stops. In general, near-side stops are preferred on two-lane roadways where vehicles will not pass a stopped bus. In the case of a roadway with wide shoulders or multiple lanes where vehicles may pass stopped transit vehicles, far-side stops are preferred for sight distance.

Stops should be placed to minimize difficulties associated with lane changes and weaving maneuvers on the approach to a left turn. To minimize conflicts and maintain sight distance, bus stops should not be located close to driveways. Table 2 presents a comparison of the advantages and disadvantages of each bus stop type, from the HDM and *TCRP Report 19*.

Table 2
Advantages and Disadvantages of Far-Side, Near-Side, and Mid-Block Stops

Advantages	Disadvantages
Far-Side Stop / Pull-out	
• Minimize conflict between buses and right-turning vehicles traveling in the same direction • Minimize sight distance problems on intersection approaches • Encourage pedestrian to cross behind bus • Minimize area needed for curb-side bus zone • Easier to re-enter traffic stream after signalized intersection	• Bus stopped in travel lane may result in traffic queued into intersection, with consequent safety and traffic flow impacts • May cause passengers to access buses farther from crosswalk • May interfere with right turn movement from cross street
Near-Side Stop / Pull-out	
• Minimizes bus impacts to traffic flow when traffic is heavy on far-side of intersection • Allow passengers to access buses close to crosswalk • Driver may use width of intersection to pull away from curb • Allows passengers to board and alight while bus is stopped at red signal	• Stopped bus may interfere with dedicated right turn lane • May cause sight distance problem for cross-street traffic and pedestrians • If located at signalized intersection, may be difficult for buses to re-enter traffic stream • If bus stops in travel lane, prohibits through traffic movement with green light • May cause pedestrians to cross in front of bus at intersections
Mid-Block Stop / Pull-out	
• Minimizes sight distance problem for vehicles and pedestrians • May be closer to pedestrian origins and destinations on long blocks • May reduce transit impacts on traffic flow	• Requires additional distance for no-parking restrictions • Increases walking distance for passengers crossing at intersection, or requires additional design treatments to improve mid-block crossing opportunities

Safe Transit Vehicle Movements

Where transit stops are located outside off of US 30 on local streets or at park-and-ride facilities, it is important to consider the safety and convenience of any movements that buses are required to make to access the stop. This is particularly important along US 30, as very few stops are located directly on US 30.

As US 30 is a high-speed, high-volume roadway throughout most of Columbia County, transit stop design must carefully consider safe entry and exit to US 30. To the extent possible, intersections where buses must make left-turns to enter or exit US 30 should be signalized, located such that adjacent signalized intersections provide adequate gaps for these movements or, at a minimum, include left-turn refuges.

In addition, all unsignalized intersections where transit vehicles turn or are stop-controlled should be evaluated to ensure adequate sight distance. Where sight distance is inadequate, improvements

to correct the deficiency should be made if feasible, transit vehicles should be re-routed to avoid the intersection, and/or advance warning signs should be installed to notify drivers of a potential conflict.

Out-of-direction Travel

Stops should be located on or as close as possible to US 30 to reduce diversion and travel time. The bus circulation pattern from the highway to the stop and back should be evaluated (in both directions of travel, as appropriate) to ensure that the total number of stops, turns, and overall out-of-direction travel for buses is minimized.

Park-and-Ride Facilities

Park-and-ride facilities provide parking for people who wish to transfer from their personal vehicle to public transportation or carpools/vanpools. Park-and-rides are frequently located near major intersections, at commercial centers, or on express and commuter bus routes. It is Oregon state policy to encourage development and use of park & ride facilities at appropriate urban and rural locations adjacent to or within the highway right-of-way. In Columbia County, park-and-ride facilities can provide an efficient method to provide transit service to low density areas, connecting people to jobs, and providing an alternate mode to complete long-distance commutes.

Park-and-ride facilities may be either shared-use, such as at a church or shopping center, or exclusive-use. Shared-use facilities are generally designated and maintained through agreements reached between the local public transit agency or rideshare program operator and the property owner. The possibility of meeting the needs of the community with a shared-use lot should be investigated before building an exclusive use park-and-ride lot. Shared lots can save the expense of building a new parking lot, increase the utilization of existing spaces, and avoid utilization of developable land for surface parking. In the case of shopping centers, the presence of a shared-use park-and-ride has frequently been shown to be mutually beneficial, as park-and-riders tend to patronize the businesses in the center. *An example agreement for shared parking lot use is included as Appendix "A."*

The following guidelines related to developing park & ride facilities are adapted from the HDM.

Park-and-Ride Site Selection

As described above, the opportunity for a shared lot with off-peak demand, such as a church, movie theater, or shopping center should be explored, and new transit facilities should be coordinated with local jurisdictions. Additionally, a number of site selection criteria should be considered in the site selection process, most notably:

- Input from local transit and rideshare program operators
- Local transit authority master plan
- Local and regional transportation system plans
- Accessibility for transit and motorists
- Local public input
- Traffic impacts
- Commuter distance
- Local government zoning
- Environmental impacts
- Cost effectiveness
- Access by other modes of travel
- Visibility for passing motorist recognition
- Visibility for security
- Maintenance
- Existing right-of-way
- Shared use
- Future expansion flexibility

When considering shared-use sites, it should be kept in mind that the existing circulation and access has been designed for the primary use and may not be compatible with transit needs. If the site works from a transit standpoint and a shared-use arrangement is agreeable with the lot owners, good pedestrian connections to the boarding areas should be provided. Depending on where the stop is located within the site, new curb ramps, landing pads, or other construction might be required to meet ADA requirements.

Where there are not opportunities for shared park-and-rides, or a long-term agreement to use a shared site is not feasible, government-owned properties should receive prime consideration for new lots, assuming the other selection criteria are favorable, in order to eliminate or reduce costs for site acquisition or leasing.

Sites with poor access for either transit vehicles or users should be avoided. Typically, users will be attracted to sites where accessibility for inbound morning traffic, rather than evening exit access, is maximized. The selected site should not jeopardize the present and future integrity of the state highway or local transportation facility.

Park-and-Ride Site Design

Facilities in rural areas will generally not exceed the need for more than 100 spaces. Lots should be appropriately sized, and may be as small as only five or ten spaces. Some example layouts of urban park-and-ride facilities from the HDM are shown in Figure 2. In the Columbia County context, the shared-facility example and a reduced-size version of the "one adjacent street" example would be the most applicable.

Design features must be in compliance with applicable design standards in the city or county development code, specifications, operating standards, and any other local requirements that may apply.

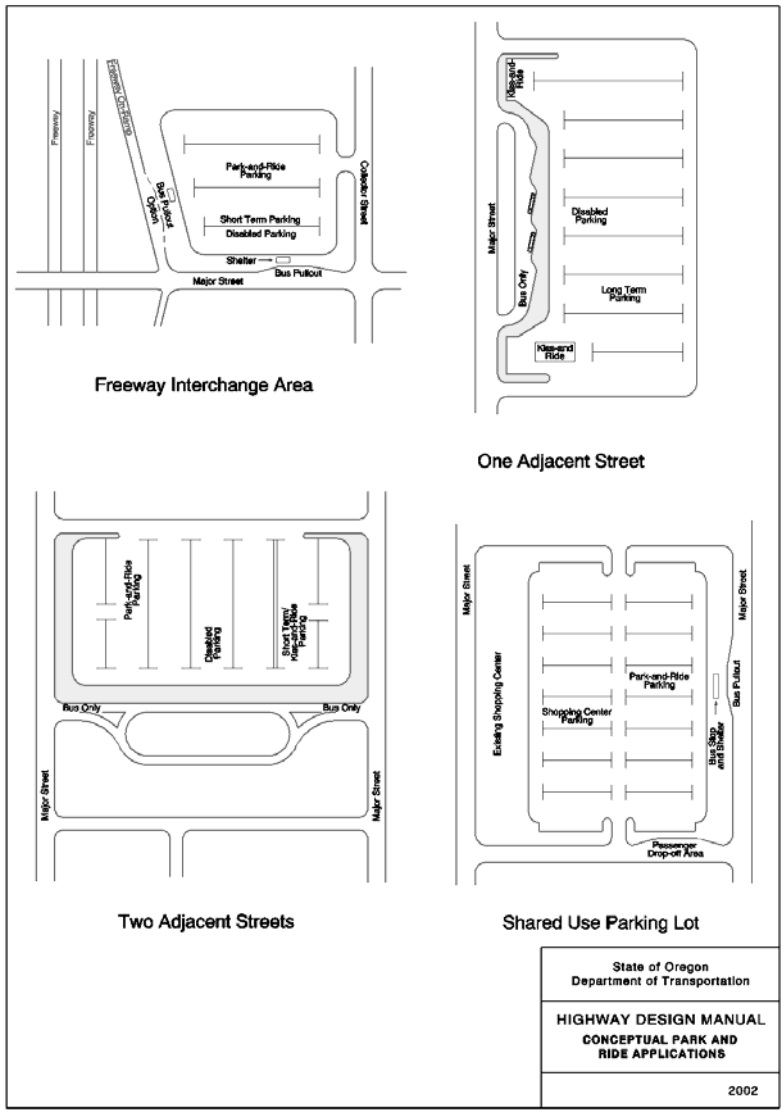


Figure 2 Conceptual Park & Ride Designs

Design features such as the entrances and exits, internal circulation, shelter location, illumination, landscape preservation and development, and passenger amenities are generally site-specific. A variety of transportation modes are used to arrive at and depart from park-and-ride facilities: private automobile, carpool/vanpool, bus or other transit vehicle, walking, bicycle, and motorcycle. These modes all need to be accommodated.

Often the most efficient access to a park-and-ride facility will be from an intersecting collector or local street. If the intersection is already signalized, excellent access may be available. If the park-and-ride warrants a signal at a later date, the accesses should be located with signal spacing and operations in mind. Access to a park-and-ride should not increase congestion on the facility it serves. Appropriate measures should be taken to avoid significant adverse impacts to adjacent neighborhoods and nearby streets.

Ease of access, especially for the morning commuters, will encourage use of the facility. Where access is taken from state highways, appropriate ODOT access and spacing standards contained in Appendix C of the *1999 Oregon Highway Plan* should be followed. An ODOT approach permit would be required for any park–and-ride site proposing direct access to US 30.

The transit route from the highway to a park-and-ride facility, internal circulation route, and return route should be designed to minimize transit travel time. Automobile traffic should not conflict with transit vehicles. At larger park-and-ride lots, it may be desirable to provide an exclusive entrance and exit for transit vehicles.

Major circulation routes within a park-and-ride lot should be located along the outside edges of the parking area to minimize vehicle-pedestrian conflicts. The priority sequence for the design of the individual user modes should favor the high occupancy vehicles, namely the transit vehicles and carpool/vanpools. Personal vehicle traffic should be separated from bus traffic where possible. Curb radii and driveway widths should be designed to accommodate the turning characteristic of the largest expected vehicle. The internal circulation should also accommodate the needs of pedestrians and bicycles.

The passenger waiting areas should be easily accessed by transit patrons. Aisles should be aligned to facilitate convenient pedestrian movement toward the bus loading zone. In shared-use facilities, the passenger waiting area should be placed away from the other activity centers to minimize the impacts of pedestrian, automobile, and bus traffic. Bicycle parking facilities should not conflict with passenger waiting areas.

Asphalt, concrete, or Portland cement concrete are the ideal surfacing options for all facilities officially designated for park-and-ride. If a facility is to remain unpaved, areas designated for handicapped patrons must meet ADA accessibility standards. Adequate slope should be provided for surface drainage to prevent ponding of water. The recommended maximum grade is 2 percent. Curb, gutter, and surface drains should be installed where needed.

Any landscaping should be compatible with the surrounding area, and should not interfere with sight distance, vehicle operations, or access for potential users. Selective preservation of existing vegetation is often a cost-effective means to reduce environmental impacts and provide a pleasant environment for facility users. Landscape design should keep maintenance requirements to a minimum. Trees should generally be the dominant plant material as they provide shade and visual interest, reduce glare, and are less costly to maintain than shrubs and ground cover.

Additional design features that are not exclusive to park-and-ride facilities, such as lighting, shelters, and customer information are described in subsequent sections.

CUSTOMER INFORMATION

The provision of well-placed and legible customer information at and near transit stops and for park-and-rides is an essential part of providing high-quality transit service. Information helps customers locate bus stops and dedicated park-and-rides and obtain information on available services and how to use them. Customer information elements also help advertise the existence of transit service to potential customers.

Wayfinding and On-Site Signage

Effective signage allows passengers to quickly and efficiently locate bus stops, and once there, provides confirmation that they are in the correct location. Wayfinding signage is particularly important on the US 30 corridor, because most of the stops are not located directly on US 30, and may therefore be difficult for prospective passengers to find. Wayfinding signage should be included along US 30 to guide customers to transit stops located adjacent to the corridor.

Bus stop signs are also commonly located on a shelter or existing pole (such as a street light). The signs should not be obstructed by trees, buildings, or other signs. All bus stop sign posts that are not protected by a guardrail or other feature should be a break-away type to minimize injuries and vehicular damage, and to facilitate replacement of the post. Pavement markings associated with on-street bus stops are generally installed and maintained by local road authorities. The most common marking is a yellow painted curb at the bus stop.

The actual displays mounted on the sign can include the transit agency logo, route numbers available at the stop, stop ID, type of route (local or express), and destination for a limited number of routes. Detailed guidelines for the design of bus stop signs can be found in *TCRP Report 12: Guidelines for Transit Facility Signing and Graphics,* and should be referred to for greater detail.

At the stop, good signage is an important element of good transit service, serving as a source of information to patrons and as a marketing tool to promote transit use. Route information can be displayed in various ways, with flag signs the most common method used by transit agencies to inform passengers of the location of a bus stop.

Information signs should be standardized throughout the system to improve legibility. For example, letter styles, sign appearance, and color choice should be consistently used throughout the transit system so that passengers can readily identify bus stops. Double-sided signs that provide for visibility from both directions and reflectorized signs for nighttime visibility are preferred. Signs providing route designations, bus numbers, destinations, and access information must also be designed for use by transit riders with vision impairments.

Bus stop signs should be placed at the location where people will board the front door of the bus. The bus stop sign shows the area where passengers should stand while waiting for the bus. It also serves as a guide for the bus operator in positioning the vehicle at the stop. The bottom of the sign should be at least 7 feet above ground level and should not be located closer than 2 feet from the curb face. Figure 3, from *TCRP Report 19*, shows typical bus stop sign placement.

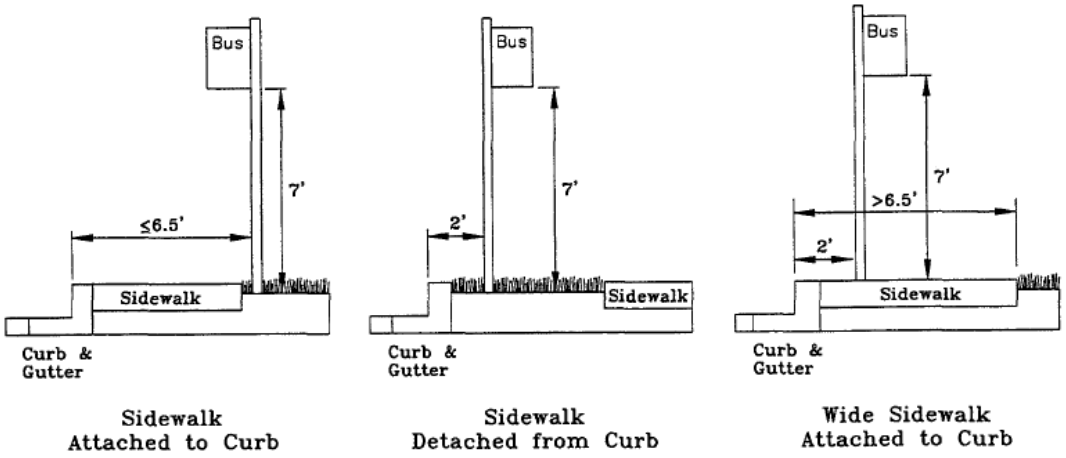


Figure 3 Bus Stop Sign Locations

Wayfinding signage should be included along US 30 to guide motorists to park-and-ride lots located adjacent to the corridor. Figure 4 shows the ODOT-approved park-and-ride lot sign design for use on highways; the carpool logo can be supplemented or replaced by the transit agency logo, depending on the primary use(s) of the lot. Within a shared-use lot, additional signage may be required to show which spaces are allowed to be used for park-and-ride and where passengers should go to board a bus.

Figure 4 Park & Ride Lot Wayfinding Signage

Service Information

In addition to merely informing passengers of the location of a particular transit stop or park and ride, transit stops can also provide passengers with schedule and route information. Schedule displays can be mounted on the flag sign pole or inside a shelter. Interior panels of shelters also can be used for posting route and schedule information. Side panels may be large enough to display the entire system map and can include backlighting for display at night. Some recommendations for route or patron information display are as follows:

- Provide updated information immediately when changes are made to routes and schedules.

- Consider the quality and appearance of information displays. A visually poor route map conveys a negative impression of the system. Enclosed display cases provide protection from the elements and against graffiti/defacement.
- Make information displays permanent. Temporary methods for displaying information (such as tape-mounting) create a cluttered, unsophisticated appearance at the bus stop.
- Follow ADA clearance, mobility, and visual guidelines for access of information by individuals with impairments.

Bus Shelter with Route and Svstem Information

ACCESSIBILITY

Both to maximize ridership and comply with ADA requirements, transit stop design must be accessible. Features that make a stop accessible for customers with disabilities also increase the ease of access for other passengers.

ADA Compliance

The Americans with Disabilities Act (ADA) establishes accessibility requirements for state and local government facilities, places of public accommodation, and commercial facilities. Two groups that need consideration are persons with mobility and vision impairments. Both groups require a continuous, level passage free of obstructions and paved with a firm, stable, and slip-resistant surface. This passage should be at least 5 feet wide, with a 6.5 vertical clearance. The passage may shrink briefly to 3 feet wide in constrained areas. Bus stop boarding and alighting areas must connect to streets, sidewalks, or pedestrian paths by an accessible pedestrian route.

Figure 5 Crosswalk without Accessible Curb Ramp

At transit stops where curbs are present, the ADA requires an 8-foot by 5-foot paved landing pad at bus entrances and exits. At stops without curbs, the shoulder should be 8 feet wide to provide a landing pad. Uncurbed areas can also have an impact on wheelchair lifts, depending on the specific design of the lift. Cross-slopes for drainage should be a maximum of 2%.

Figure 6 Columbia County Transit Stop without Accessible Landing Pad

A stop that is currently accessible may not necessarily meet standards indefinitely. Many factors may decrease accessibility and safety, including construction, unregulated placement of newspaper vending machines, and poor maintenance. Stops should be regularly monitored to ensure that the stop is clear of obstructions. Detailed design specifications and guidelines for meeting accessibility requirements are available through the United States Access Board's *Revised Draft Guidelines for Accessible Public Rights-of-Way*.

Bicycle Facilities

Bicycle storage facilities should be provided at all park-and-ride locations, subject to property owner approval, and should be considered at all other transit stops as space permits. Designated storage facilities discourage bicycle riders from locking bikes onto the bus facilities or on an adjacent property. Bike storage will typically consist of bike racks, but may be supplemented with bicycle lockers as space, funding, and demand dictate. Proper storage of bicycles can reduce the amount of visual clutter at a stop by confining bikes to one area. Recommendations regarding bicycle storage facilities are as follows:

- Provide paved access to the bus stop and construct the waiting area with non-slip concrete or asphalt that is properly drained;
- Locate the storage area away from other pedestrian or patron activities to improve safety and reduce congestion;
- Coordinate the location of the storage area with existing on-site lighting, and under shelter if available; and
- Do not locate the storage area where views into the area are restricted by the shelter, landscaping, or existing site elements, such as walls.

The Association for Bicycle and Pedestrian Professionals provides a detailed set of design recommendations for bicycle parking in its *Bicycle Parking Guidelines*.

In addition to bicycle storage, routes leading to transit stops should have appropriate bicycle facilities, including bicycle lanes as necessary.

Street Crossings

Transit stop locations should be evaluated for safe and convenient pedestrian crossings of adjacent streets, and crossing improvements should be made where needed. In particular, pedestrian crossings of US 30 require specific attention due to the high speed and volume of traffic along the corridor. Where appropriate pedestrian crossings are not readily available, pedestrians are likely to cross regardless, leading to potential safety concerns. In general, most pedestrians will not walk more than 300 feet out-of-direction to access a crossing. Therefore, bus stops on US 30 should be placed near appropriate pedestrian crossings of the highway, or where construction of such crossings are planned in the near future.

Where possible, transit stops should be located adjacent to traffic signals to avoid the need for unsignalized pedestrian crossings. All traffic signals should include accessible curb ramps,

crosswalks, countdown pedestrian signal heads, and accessible push buttons. In some cases, it is not possible to locate transit stops near traffic signals. In these cases, care should be taken to ensure that safe crossing opportunities are available to pedestrians. Marked crosswalks with curb ramps for local street crossings will typically be used in these situations; on US 30 pedestrian refuges may be provided on raised median islands, advanced signing and striping, and/or flashing beacons will be considered by ODOT to address pedestrian safety.

According to the ODOT Traffic Manual, marked crosswalks are generally discouraged at uncontrolled and mid-block locations. Marked crosswalks should only be considered at uncontrolled approaches when an engineering study demonstrates their need and the location meets the following criteria:

- There is good visibility of the crosswalk from all directions, or it can be obtained. At a minimum, stopping sight distance must be met.
- There is no reasonable alternative crossing location.
- There is established pedestrian usage.
- Posted speeds are 35 mph or less.
- Traffic Volumes are less than 10,000 ADT, or if above 10,000 ADT, raised median islands are included.
- On multi-lane highways, pedestrian refuges should be included.

Rail Crossings

The US 30 corridor is closely paralleled to the north by a rail corridor throughout much of Columbia County. The relative infrequency of public rail crossings along this corridor, and the unlikely addition of new public crossings, makes locating transit stops as closely as possible to existing controlled public crossings, where there are no other signalized crossing opportunities, an important siting objective. Doing so reduces the likelihood of illegal, potentially unsafe rail crossings by pedestrians attempting to access bus stops and park and rides across US 30.

PASSENGER SECURITY

Passenger security is a major issue in bus stop design and location and can positively or negatively influence a bus patron's perception of the bus stop or park-and-ride facility. Two primary aspects of security are discussed below: lighting and visibility.

Lighting

Lighting affects bus patrons' perception of safety and security at a bus stop, as well as the use of the site by non-bus patrons. Good lighting can enhance a waiting passenger's sense of comfort and security; poor lighting may encourage unintended use of the facility by non-bus patrons, especially after hours. Lighting is particularly important in Columbia County, where patrons may arrive and return to the stop in darkness during the winter season. Bus patrons who have reduced vision in dimly-lit areas benefit from good lighting at and around the bus stop.

According to the Easter Seals Project ACTION Toolkit, The following are highly recommended to provide a safe waiting environment:

- Install lighting that provides between 2 to 5 footcandles of illumination.
- Multiple sources of light are more resistant to vandalism and provide illumination that casts fewer intimidating shadows. Lighting that is too bright in bus shelters can also compromise personal safety, creating a fish bowl effect whereby the transit user can easily be seen by others but cannot see outside.
- Ensure light fixtures are vandal-proof but easily maintained. For example, avoid using exposed bulbs or elements that can be easily tampered with or destroyed.
- Locate bus stops near existing streetlights for indirect lighting. When coordinating bus shelter or bench locations with existing streetlights, the minimum clearance guidelines for the wheelchairs should be followed.

Approximate costs for lighting at a transit stop may range from $5,000 - $10,000, depending on existing infrastructure.

Visibility

Where possible, transit stops should be located in high-activity areas to increase surveillance of the site by non-transit users. Similarly, parking for park-and-ride lots that are shared with other uses will typically provide more security to customer vehicles.

From the perspective of security, landscaping, walls, advertising panels, and solid structures can restrict sight lines and provide spaces to hide. Each of these items can be an integral part of the bus stop, either by design or by proximity of existing land uses. Therefore, the transit agency and the landowner should carefully review which amenities are to be included at a bus stop and consider any factors that may influence security. Bus stops amenities should also be designed to ensure that passengers are visible to drivers of approaching transit vehicles.

Some guidelines regarding security at bus stops are as follows:

- Bus stop shelters should be constructed of materials that allow clear, unobstructed visibility of and to patrons waiting inside.
- Bus stops should be at highly visible sites that permit approaching bus drivers and passing vehicular traffic to see the bus stop clearly.
- Landscaping elements that grow to heights that would reduce visibility into and out of the bus stop should be avoided. Low-growing shrubbery and ground cover and deciduous shade trees are preferred at bus stops. Evergreen trees provide a visual barrier and should be avoided.
- Bus stops, whenever possible, should be coordinated with existing street lighting to improve visibility.
- Bus stops should be next to existing land uses, such as stores and businesses, to enhance surveillance of the site.

COMFORT AND CONVENIENCE

In addition to the aspects of transit stop design discussed above, there are many options for providing passenger amenities at bus stops that may serve to improve passenger comfort and ultimately increase ridership.

Shelters

A bus shelter provides protection for customers from the elements and seating while waiting for a bus. This is particularly important in Columbia County due to the rainy climate and the long wait times that can result from longer bus headways.

The location of a bus stop shelter should enhance the circulation patterns of patrons, reduce the amount of pedestrian congestion at a bus stop, and reduce conflict with nearby pedestrian activities. The location of the curb and sidewalk and the amount of available right-of-way can be determining factors for locating a bus stop shelter. *TCRP Report 19* provides the following placement guidelines for use when placing a bus stop shelter on a site (see also Figure 3 from *TCRP Report 19*):

- Bus stop shelters should not be placed in the 5-foot-by-8-foot wheelchair landing pad.
- General ADA mobility clearance guidelines should be followed around the shelter and between the shelter and other street furniture.
- Locating shelters directly on the sidewalk or overhanging a nearby sidewalk should be avoided because this may block or restrict general pedestrian traffic. A minimum clearance of 3 feet should be maintained around the shelter and an adjacent sidewalk (more is preferred).
- To permit clear passage of the bus and its side mirror, a minimum distance of 2 feet should be maintained between the back-face of the curb and the roof or panels of the shelter. Greater distances are preferred to separate waiting passengers from nearby vehicular traffic.
- The shelter should be located as close as possible to the end of the bus stop zone so it is highly visible to approaching buses and passing traffic. The walking distance from the shelter to the bus is also reduced.
- Locating bus stop shelters in front of store windows should be avoided when possible so as not to interfere with advertisements and displays.
- When shelters are directly adjacent to a building, a 12-inch clear space should be preserved to permit trash removal or cleaning of the shelter.

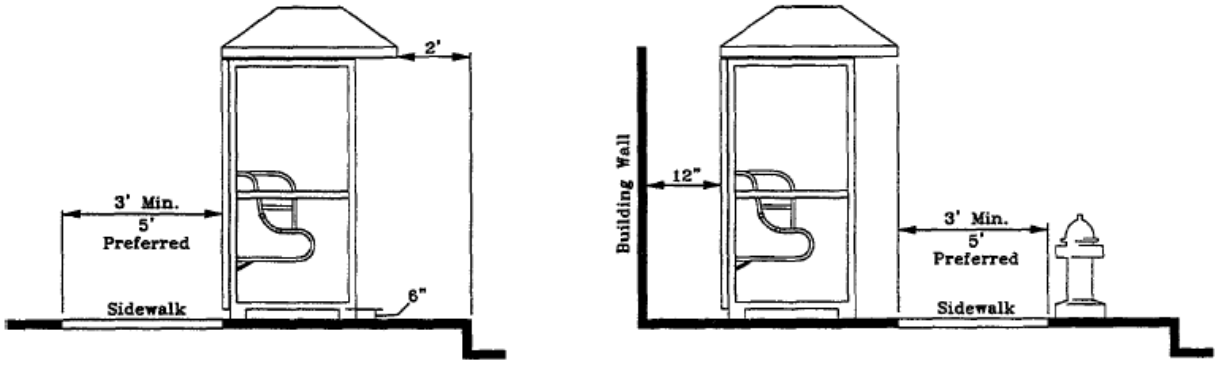


Figure 7 Shelter Clearance Guidelines

In orienting and configuring bus shelters, personnel should consider the environmental characteristics of each site, because placement and design can positively or negatively influence passenger comfort. When shelter interiors are uncomfortable, patrons will seek relief from the elements outside the shelter, appropriating walls or window ledges of nearby private property for their use.

Different bus shelter configurations can be used to reflect site or regional characteristics (see Figure 7 from *TCRP Report 19*). For example, in cooler climates, bus shelters may be faced directly east or west to maximize passive solar heat during winter months, and also placed away from prevailing winter winds. Shelters can be completely open to permit unlimited movement of air, or panels can be erected to keep the interior of the bus shelter warm; the latter treatment is recommended for Columbia County. Shelters can be fully enclosed by solid panels and the back of the shelter may be rotated to face the street to protect waiting passengers from splashing water or snow build-up. To enhance ventilation and to reduce the clutter that can accumulate inside a shelter, a 6-inch clearance between the ground and the bottom of the panels is standard in fully enclosed shelters. In any case, shelters should be coordinated with landscaping to provide maximum protection from the elements and to enhance the visual quality of the bus stop.

Columbia County Bus Stop Example

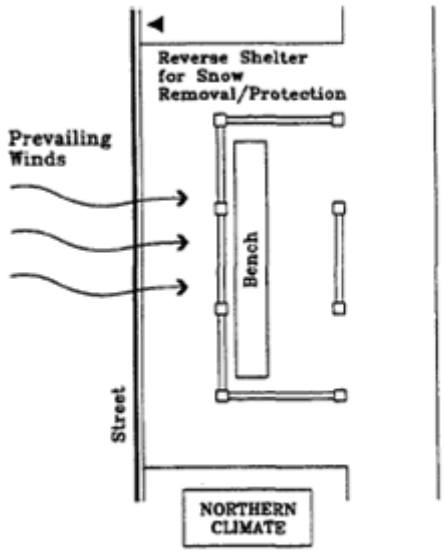


Figure 8 Orientation and Panel Placement to Improve Interior Comfort

Many transit agencies use paid advertising in bus shelters to reduce costs and to provide other benefits. Passenger and pedestrian safety and security are of greater concern at shelters with advertising. The advertising panels may limit views in and around a bus stop, making it difficult for bus drivers to see patrons. The panels can also reduce incidental surveillance from passing traffic. To prevent restricted sight lines, advertising panels should be placed downstream of the traffic flow, to assist an approaching bus driver view the interior of the shelter easily. Indirect surveillance from passing traffic should be preserved through proper placement of the panels.

Approximate costs for transit shelters may range from $10,000 - $15,000, including the cost of installing a concrete pad.

Benches

Seats provide comfort to waiting customers and increase the attractiveness of the bus service, especially for those with mobility impairments. Patrons who have difficulty standing will benefit from seating and will more likely use transit services. Seating located in the shelter should leave clear space for patrons with wheelchairs to use the shelter.

The following bench placement guidelines are recommended by *TCRP Report 19*:

- Avoid locating benches in completely exposed locations. Locate benches near existing shade trees if possible. Otherwise, install landscaping to provide protection from the wind and other elements.
- Coordinate bench locations with existing street lights to increase visibility and enhance security at a stop.
- Locate benches on a non-slip, properly drained, concrete pad. Avoid locating benches in undeveloped areas of the right-of-way.
- Locate benches away from driveways to enhance patron safety and comfort.

- Maintain a minimum separation of 2 feet (preferably 4 feet) between the bench and the back-face of the curb. As the traffic speed of the adjacent road increases, the distance from the bench to the curb should be increased to ensure patron safety and comfort.
- Maintain general ADA mobility clearances between the bench and other street furniture or utilities at a bus stop.
- Do not install the bench on the 5-foot by 8-foot wheelchair landing pad.
- At bench-only stops, additional waiting room near the bench should be provided (preferably protected by landscaping) to encourage bus patrons to wait at the bus stop. Figure 9 from *TCRP Report 19* provides an example of the circulation requirements at a bench-only bus stop with additional seating provided.

Approximate costs for a bench at a transit stop range from $500 - $1,500, depending on the model.

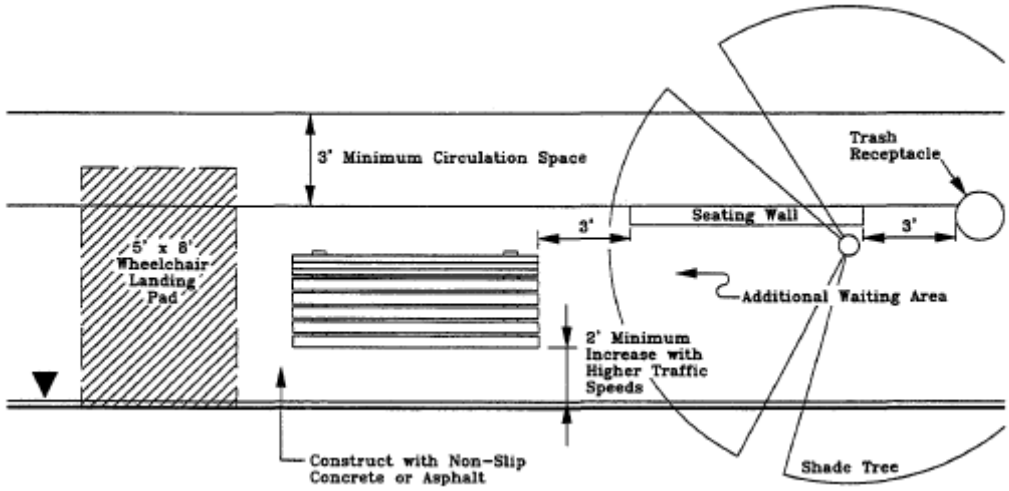


Figure 9 Conceptual Bench and Waiting Pad Design

Trash Receptacles

Trash receptacles can improve the appearance of a bus stop by providing a place to dispose of trash. The installation of trash receptacles is typically a system-wide decision. Not all bus stops need to have trash receptacles: Bus stops with low patronage may not justify the inclusion of this amenity at a bus stop; however, litter at a site may warrant the inclusion of a trash receptacle at an otherwise low-volume location. Columbia County has reduced the need for trash receptacles at stops by encouraging passengers to bring their trash on-board and dispose of it there.

Problems can arise when the receptacles are not regularly maintained or when the bus stop is next to a land use that generates considerable trash such as convenience stores and fast food restaurants. In such cases, transit agencies should work with these establishments to define maintenance responsibilities for the bus stop and the area around the businesses. Businesses and community groups typically are reluctant to agree to maintain trash receptacles at public sites.

TCRP Report 19 provides the following recommendations regarding installing trash receptacles at bus stops:

- Anchor the receptacle securely to the ground to reduce unauthorized movement.
- Locate the receptacle away from wheelchair landing pad areas and allow for at least a 3- foot separation from other street furniture.
- Locate the receptacle at least 2 feet from the back of the curb.
- Ensure that the receptacle, when adjacent to the roadway, does not visually obstruct nearby driveways or land uses.
- Avoid installing receptacles that have ledges or other design features that permit liquids to pool or remain near the receptacle—this may attract insects.
- Avoid locating the receptacle in direct sunlight. The heat may encourage foul odors to develop.

Figure 10 from *TCRP Report 19* shows the minimum circulation and separation requirements for trash receptacles at bus stops.

Approximate costs for trash receptacles range from $500 – $1,000.

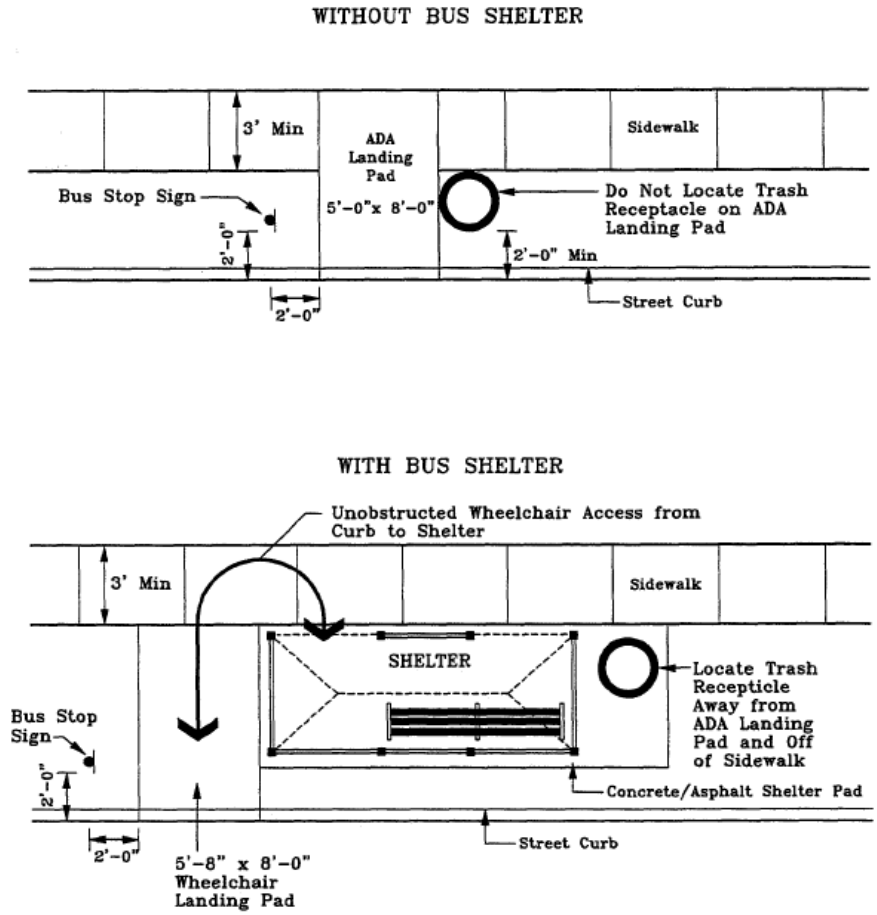


Figure 10 Trash Receptacle Placement Guidelines

Section 4
Existing Conditions and Future Needs

Existing Conditions and Future Needs

This section describes Columbia County's existing transit service and facilities, including transit service providers, ridership, stop locations, infrastructure, and vehicles. Specific to the US 30 corridor, this section also provides an analysis of the strengths and weaknesses of existing bus stops, and a description of the opportunities for making improvements to the stops, as well as constraints that may limit the ability to make certain kinds of improvements.

EXISTING TRANSIT SERVICE

Transit services within Columbia County include the fixed-route, flex-route, and dial-a-ride services provided by Columbia County Rider that are available to the general public, as well as limited specialized dial-a-ride services offered by various providers for special-needs populations, such as senior citizens. Each of these services is described below.

Columbia County Rider

The Columbia County Transit Division is the largest transit service provider in Columbia County, operating under the name "Columbia County Rider." The types of services offered by Columbia County Rider consist of the following:

- *Fixed routes* that operate on a fixed schedule along a specified route and stopping only in designated locations;
- A *flex route* that operates on a fixed schedule and stops at certain designated locations on each trip, but is also allowed to make a limited number of deviations off-route each trip to pick up and drop off passengers at other locations; and
- *Dial-a-ride* service throughout the County that operates on an advance-reservation basis, picking up and dropping off passengers at locations of their choosing. Rides can be scheduled up to one week in advance, and depending on space availability, riders may be able to reserve on the day of their desired trip.

These service labels are commonly used in the transit industry to describe some of various ways of providing transit service. It should be noted that for certain funding and regulatory purposes, terms such as "fixed route" have specific defined meanings. For example, for Americans with Disabilities Act (ADA) purposes, "fixed-route" service is required to have "complementary paratransit service" (demand-responsive service provided in the fixed-route service area, with the same service hours), while "commuter bus" service (service with a fixed schedule and route that makes no attempt to comprehensively cover a service area, has a limited route structure, has limited origins and destinations, interfaces with another mode of transportation, and has limited purposes of travel) is no required to provide the service. Unless specifically noted otherwise, the labels within this section are used in their generic sense.

Columbia County Rider provides fixed-route service in Columbia County along US 30 and within the Cities of St. Helens and Scappoose, as well as Dial-A-Ride service throughout the entire County. Columbia County Rider currently operates a fleet that consists of two 40-foot buses, fifteen smaller

buses, two 6-passenger vans, and two passenger cars. *Appendix "B" provides more detailed information regarding Columbia County's fleet, including vehicle age, condition, and number of seats.*

Fixed-Route Service

Columbia County Rider currently operates three fixed routes:

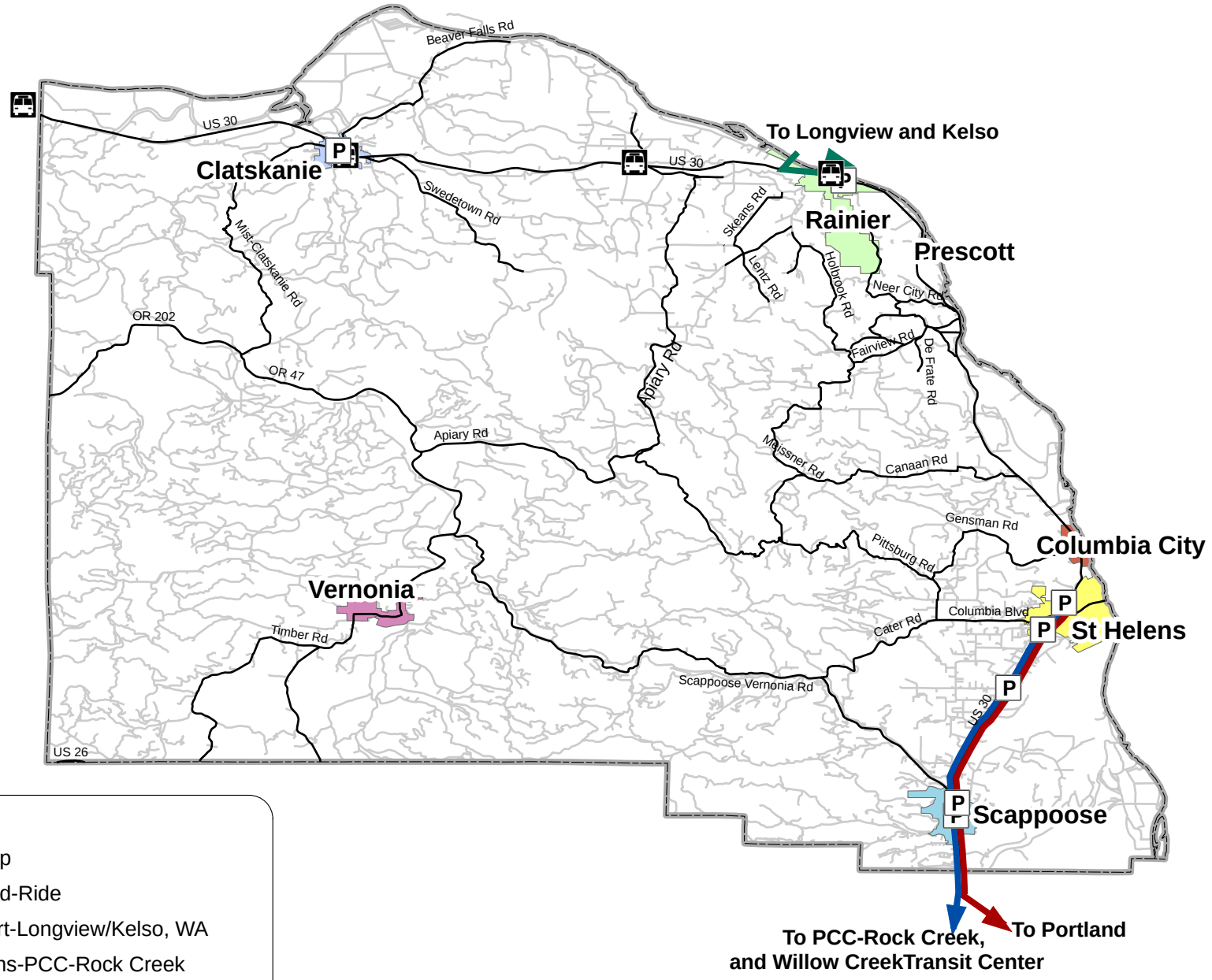
- St. Helens – Portland;
- St. Helens – PCC Rock Creek and Willow Creek Transit Center; and
- Westport – Longview/Kelso, WA.

Figure 11 shows the route followed by each of the fixed-route services, along with bus stop locations. Columbia County contracts the service to Metro West, which is required to provide 12 hours of service on each route on weekdays. *Appendix "C" provides the current schedules for each route.*

The *St. Helens – Portland* route operates 10 times per weekday, with five morning and five afternoon departures. The first trip of the day leaves St. Helens Medical Mall at 5:50 a.m. and is scheduled to arrive in downtown Portland at 7:00 a.m., with intermediate stops in Warren and Scappoose. The last trip leaves St. Helens Medical Mall at 5:00 p.m., arriving in downtown Portland at 6:00 p.m. and getting back to St. Helens approximately 60–70 minutes later. Connections to many TriMet bus routes, MAX light rail, and the Portland Streetcar are available within walking distance of the downtown Portland stop at SW Salmon Street at SW 5th Avenue. Adult fares are currently $3.30 one-way for local trips between St. Helens and Scappoose and $4.80 one-way for trips between Columbia County and Portland. Reduced fares of $2.05 and $3.80, respectively are available for riders under 10 years old, students, riders 55 and over, and persons with disabilities. Monthly passes are available for $106.80 (adult) and $91.80 (reduced fare) and are valid on all Columbia County fixed-route services. Long-term fare policy is addressed in *Section 5, Transit Funding and District Formation.*

The *St. Helens – PCC Rock Creek* operates six times per weekday, with three morning and three afternoon departures. The routing is the same as the St. Helens – Portland route while in Columbia County; however, this route travels via Cornelius Pass Road to PCC Rock Creek, Tanasbourne Shopping Center, and TriMet's Willow Creek Transit Center in Washington County. The scheduled travel time for this route is approximately 80-90 minutes end-to-end. Departures are scheduled every two hours from St. Helens, between 6:30 a.m. and 4:30 p.m. Return trips from Willow Creek operate between 7:25 a.m. and 5:25 p.m., with departures from PCC occurring approximately 11 minutes later on each trip. Connections are available to several TriMet bus lines and the MAX Blue line, providing Columbia County residents the ability to reach other destinations in Washington County and beyond. Fares are the same as the downtown Portland route.

The *Westport – Longview/Kelso* route serves North Columbia County residents. It travels along US 30 from Clatskanie to Westport in Clatsop County, returns back to Clatskanie and Rainier, loops through Longview and Kelso, Washington and finally returns back to Clatskanie. Travel time from Westport to the Amtrak station in Kelso is approximately 75 minutes. The route operates four times a day on Mondays, Wednesdays, and Fridays only. Stops in the Longview/Kelso area include the



LEGEND

- Bus Stop
- P Park-and-Ride
- Westport-Longview/Kelso, WA
- St Helens-PCC-Rock Creek
- St Helens-Portland

FIXED ROUTES
COLUMBIA COUNTY, OREGON

FIGURE **11**

H:\profile\9446 - ColCoTransit\GIS\Fig1-Routes.mxd

Greyhound station, St. Johns Medical Center, the CUBS transit center, the Amtrak station, Three Rivers Mall, and Wal-Mart. Connections to other destinations in Longview/Kelso are available through transfers to CUBS, although the route's schedule does not currently match CUBS' timed-transfer pulse at the transit center.

Two trips per day on the Westport – Longview/Kelso route connect with the Sunset Empire Transportation District's Westport Shuttle in Westport, providing onward travel opportunities to Astoria and (via transfers in Astoria) other locations in Clatsop County, Oregon and Pacific County, Washington. Trips depart Westport every three hours from 6:40 a.m. to 3:40 p.m., with the second and fourth trips connecting to Sunset Empire Transit. Trips to Clatskanie depart the Amtrak station every three hours from 7:55 a.m. to 4:55 p.m., with the first and third trips making a connection to the Westport-Astoria Shuttle. Fares range from $2.80–$5.80 ($2.05–$3.50 reduced fare for students, seniors, and disabled riders), depending on distance. The one-way fare to continue the trip to Astoria, paid on the Sunset Empire bus, is $4.00. Monthly passes are available for $106.80 (adult) and $91.80 (reduced fare) and are valid on all Columbia County fixed route services.

While there is currently no fixed-route service to Vernonia, this is high on the County's list of future improvements. A survey was sent out to approximately 1,000 residents with their water bills to determine interest for such service, and the possible schedule times. Results of this survey indicate that the participating residents would like to see such a service added and would use the service if it were available. (It should be noted that responses to surveys of this nature tend to predict more future usage than actually occurs. The results of the survey efforts are covered in the following section: *Section 4, Customer, Community, and Stakeholder Preference.*

Under the meaning of the ADA, Columbia County's fixed-route services would be classified as "commuter bus" services, as they make no attempt to comprehensively cover the county or its cites, have limited origins and destinations, interface with other modes of transportation (e.g., Amtrak in Kelso, light rail and local bus in Portland and Washington County), and have limited purposes of travel (mostly commuting on the Portland and Washington County routes and mostly shopping on the Longview/Kelso route). Thus, ADA "complementary paratransit" service is not required for these routes. Nevertheless, the County's dial-a-ride service serves the same origins and destinations as these commuter bus routes.

Flex-Route Service

Columbia County recently started Flex-Route service between St. Helens and Scappoose to help reduce the number of dial-a-ride trips between the two cities. The route operates 90-minute headways, with its first run beginning at 9:00 a.m. and the last run beginning at 4:30 p.m., for a total of 9 hours of service. The Flex-Route operates differently than the fixed routes in that it will make a certain number of deviations from its standard route, upon request. Deviations are limited to a maximum of 10 minutes per trip. Flag-down stops are also allowed where safe within St. Helens (but not on US 30). The fare is $1.50 for all trips and riders.

Because the Flex-Route can deviate off-route to pick up passengers who are not able to get to one of the standard stop locations, ADA "complementary paratransit" service is not required for this route.

Dial-A-Ride Service

Dial-A-Ride service is available to all Columbia County residents. The service can operate from 6:30 a.m. to 6:30 p.m. Monday through Friday; the contractor is required to provide 8 hours of service each weekday during this time period. Passengers may call ahead or submit an online request form to schedule a ride, from one day up to one week in advance. This service will then transport the individual from the requested pick-up location to the requested drop-off location. Fares for all travelers vary by distance, ranging from $1.80 for trips within the same city, up to $25.00 for the longest trips. *Appendix "D" provides the dial-a-ride fare schedule.*

Special Needs Service Providers

Northwest Ride Center coordinates and purchases non-emergency medical transportation for low-income and other medically needy persons who live in Columbia, Clatsop, or Tillamook Counties, who do not have alternative transportation available. Costs are reimbursed through the Medicaid program, under Title XIX of the Social Security Act (Grants to States for Medical Assistance Programs). The Northwest Ride Center books some rides onto Columbia County Rider's Dial-a-Ride Service.

According to Columbia County's 2007 Coordinated Plan, there are a small number of special needs transportation providers within the County. Three senior centers in Columbia County (Clatskanie, Rainier, and Scappoose) have transportation that is available for the centers' activities. The Avamere (St Helens), Rose Valley (Scappoose), Spring Meadow (St Helens), Amber (Clatskanie), Columbia Care (Scappoose), Thanksgiving House (St Helens), Meadow Park (St Helens), and Spring Lake (Scappoose) assisted-living facilities provide transportation for their residents on a limited basis, such as sightseeing excursions. The Community Action Team (CAT) operates its own Head Start transportation and has a van for its Family Literacy (teen parents) program. CAT also operates the Area Agency on Aging (Triple A), which provides a multitude of services to the elderly, including limited transportation services. Columbia River Fire and Rescue provides some same-day Medicaid transportation for Columbia County seniors for non-emergency medical appointments through their Care Car program. Columbia County Mental Health also provides limited transportation services to its clients and occasionally refers some clients to Columbia County Rider.

COLUMBIA COUNTY DEMOGRAPHICS

Transit Users

The 2000 census only reported 38 Columbia County residents that used public transit to commute to work, which is too small a sample to draw meaningful conclusions from. Demographic information about transit users from the 2007 American Community Survey, representing average conditions in Columbia County from 2005–2007, will not be available until December 2008. Rider surveys are currently being conducted, which include questions about riders' age, sex, household income, trip purpose, and car availability, but results are not yet available. Therefore, this information will be compiled later in the project.

Commuter Destinations

Table 3 4-6provides a summary of where Columbia County residents work. Figure 12 through Figure 15 provide a graphical illustration of this information.

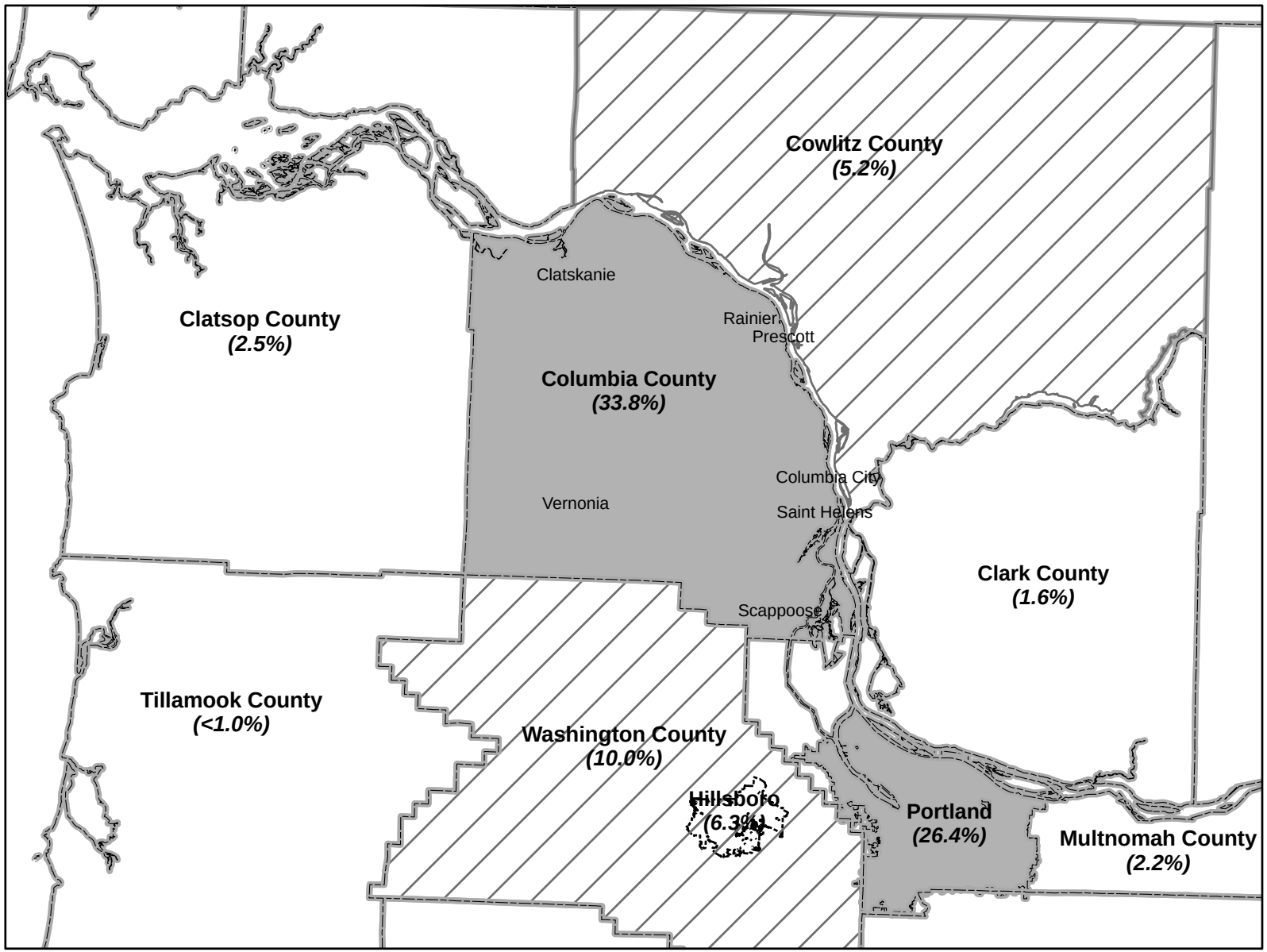
Table 3
Columbia County Commuter Destinations (2006)

Residence Location	Destination						
	Columbia County	Portland	Hillsboro	Other Washington County	Cowlitz County, WA	Clatsop County	Other locations
Columbia County (All)	33.8%	26.4%	6.3%	10.0%	5.2%	2.5%	15.8%
South Columbia County [1]	35.3%	30.8%	5.5%	9.9%	0.8%	<0.7%	17.7%
North Columbia County [2]	33.8%	12.7%	2.5%	3.7%	24.7%	7.7%	14.9%
Vernonia	28.9%	11.9%	20.3%	22.8%	0.8%	2.6%	12.7%

[1] Includes St Helens, Scappoose, and Columbia City
[2] Includes Rainier and Clatskanie
Table Source: US Census Bureau. *Longitudinal Employer-Household Dynamics*.

As Table 3 shows and the figures illustrate, approximately two-thirds of Columbia County residents commute outside of the County for work. This proportion is essentially unchanged between the South and North portions of the County, though it does slightly increase for residents of Vernonia. Just over one-quarter of the working population of the County commutes to Portland. This proportion is halved for residents of North Columbia County and Vernonia, while it is slightly higher for residents of the more populous southern section of the County. North Columbia County commuters that leave the county for work most frequently cross the Columbia River at Rainier to the Longview area and Cowlitz County, Washington, while Vernonia commuters are most likely to work in Hillsboro or elsewhere in Washington County.

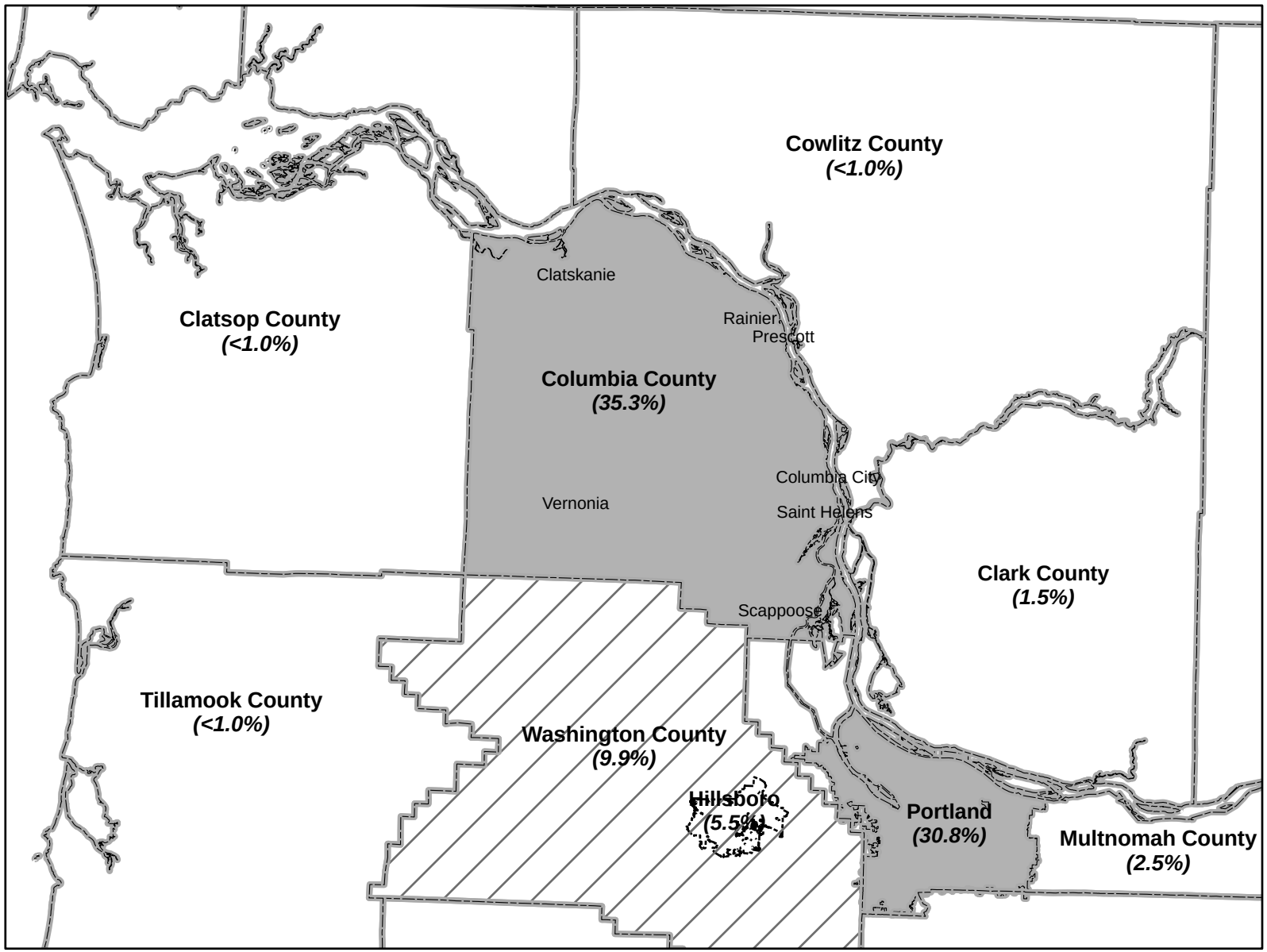
The rider survey currently in progress will provide information about current transit rider destinations. The results of the survey are presented and discussed in *Section 4*.



COLUMBIA COUNTY COMMUTER DESTINATIONS (ALL COUNTY)
NW OREGON & SW WASHINGTON

FIGURE 12

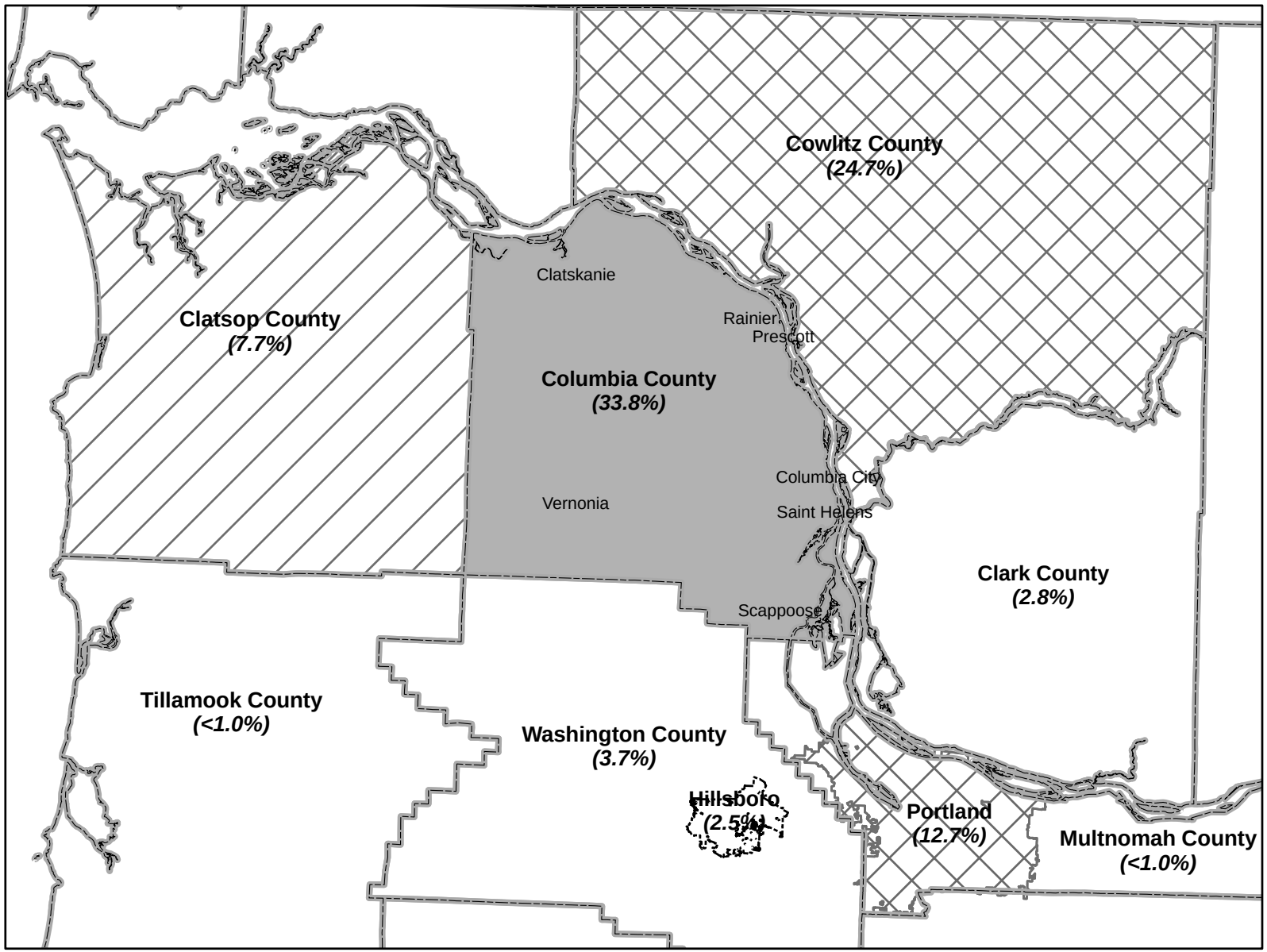
H:\profile\9446 - ColCo Transit\GIS\Fig2-CountyCommuteDestinationsBW.mxd



SOUTH COLUMBIA COUNTY COMMUTER DESTINATIONS
NW OREGON & SW WASHINGTON

FIGURE 13

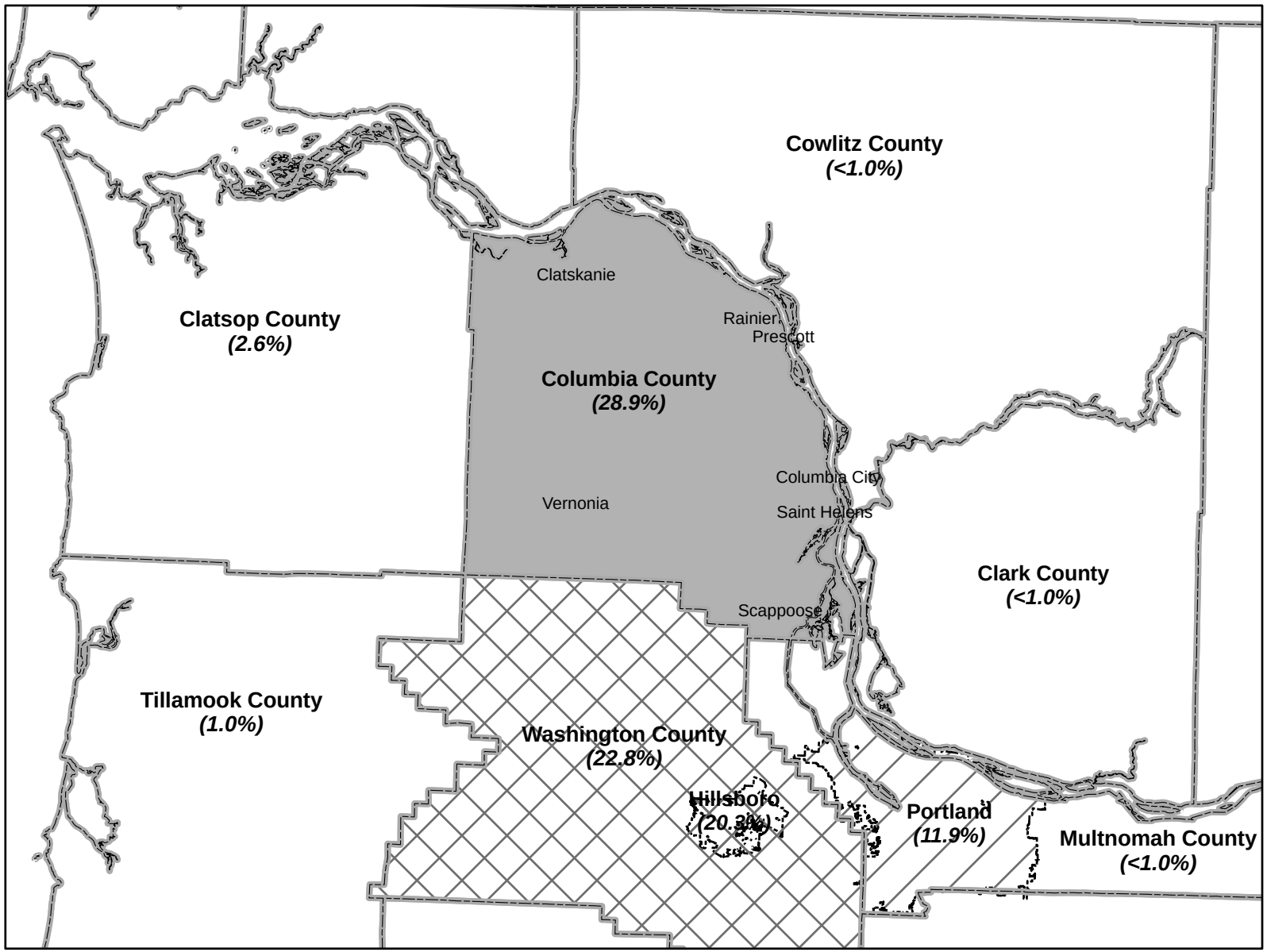
H:\profile\9446 - ColCoTransit\GIS\Fig3-SCountyCommuteDestinationsBW.mxd



NORTH COLUMBIA COUNTY COMMUTER DESTINATIONS
NW OREGON & SW WASHINGTON

FIGURE **14**

H:\profile\9446 - ColCo Transit\GIS\Fig4-NCountyCommuteDestinationsbw.mxd



H:\profile\9446 - ColCoTransit\GIS\Fig5-VernoniaCommuteDestinationsBW.mxd

VERNONIA COMMUTER DESTINATIONS
NW OREGON & SW WASHINGTON

FIGURE **15**

Ridership Levels

Table 4 summarizes average daily ridership levels on Columbia County Rider's three fixed-route services and the Dial-A-Ride service. Table 5 summarizes ridership on Flex-Route and Dial-a-Ride services. *Appendix "E" provides detailed ridership data by trip and day; it can be seen that ridership on a given day can vary substantially from the averages.* The Table 4 averages are based only on days when ridership data were collected.

Table 4
Average Daily One-Way Trips

Route	Fiscal Year '07-'08 [1]	Fiscal Year '08-'09 [2]
St Helens-Portland [3]	82	213
St Helens-PCC/Rock Creek	12	17
Westport-Longview/Kelso, WA	4	9

[1] Includes May 2007-June 2008
[2] Includes July 2008-September 2008
[3] Four trips were added to this route over the course of FY 07-08 and are not represented in much of FY 07-08 data

Table 5
Average Daily Trips (Dial-A-Ride Service)

Route	Fiscal Year '07-'08 [1]	Fiscal Year '08-'09 [2]
St Helens	34	33
Route 2	12	11
Scappoose	17	15
Flex	16[3]	21
Route 5	12	13
Clatskanie	7	7
Rainier	7	8
Vernonia	4	7
Misc.	6 [4]	6

[1] Includes May 2007-June 2008
[2] Includes July 2008-September 2008
[3] Service began in May 2008
[4] Limited data available prior to November 2007

Ridership is up significantly in the current fiscal year on the St. Helens–Portland route, compared to the previous fiscal year. The addition of four trips to the route appears to have attracted a number of new riders, and sharply rising fuel costs likely contributed to the ridership increase as well. Ridership on the other fixed routes and the Flex-Route is up substantially in terms of percentage, but less so in terms of daily ridership. Dial-a-ride ridership is steady, which is a desirable outcome

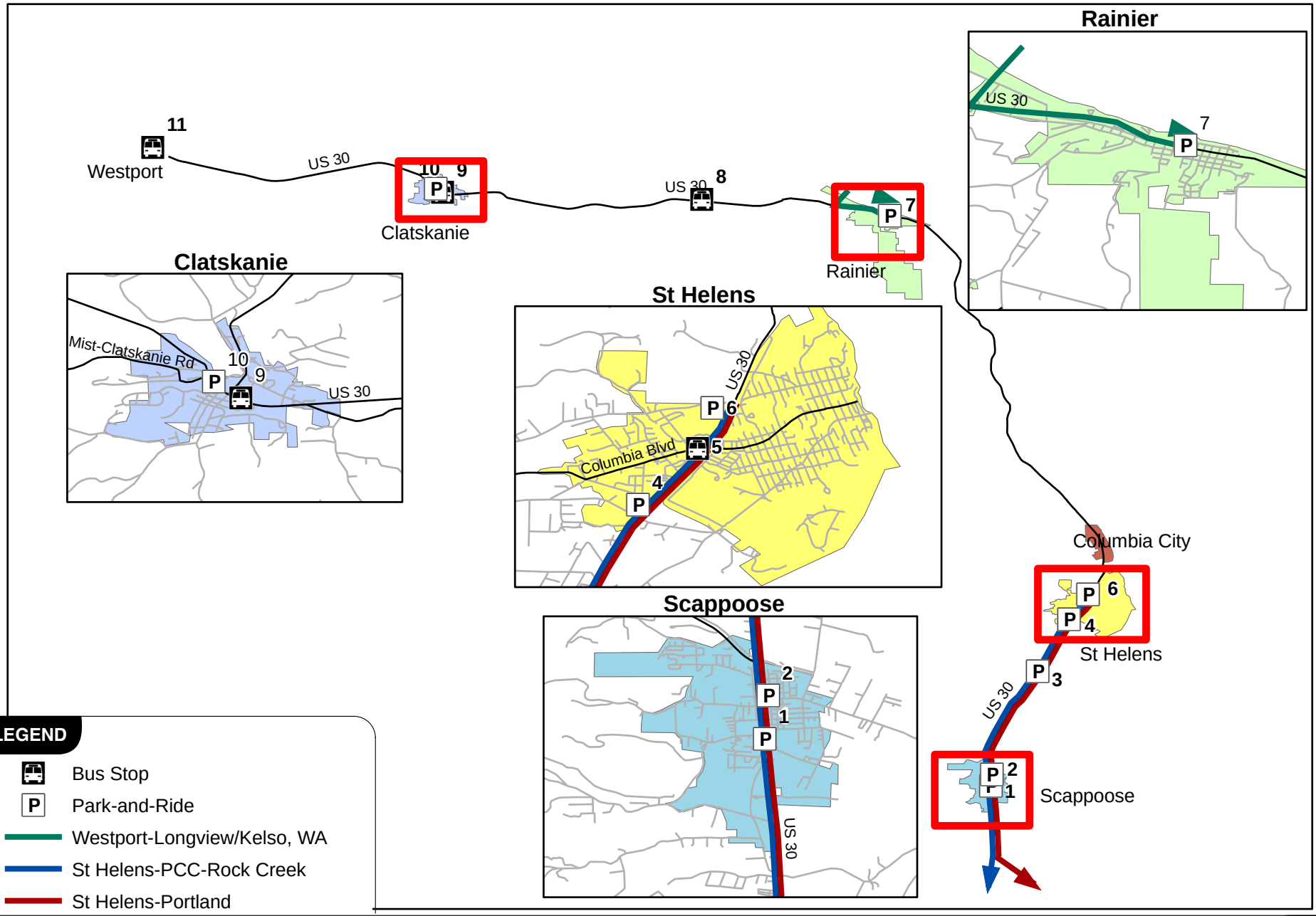
from a cost standpoint, as dial-a-ride service costs considerably more to provide than other types of services.

OPERATIONAL POLICIES

Columbia County currently does not have any operational policies pertaining to bus stops or park-and-ride lots. The County currently has informal agreements with private property owners that allow park-and-ride use of their lots. The recent increase in the number of transit riders, as displayed in Table 4, has increased the need for the County to find additional park-and-ride lots. To accommodate the additional demand new sites have been opened at the Warren Baptist Church and NE 1st Street & E Columbia Avenue in Scappoose. This increase in demand may warrant the County looking to formalize park-and-ride agreements in order to ensure that spaces will consistently be available to transit riders.

EXISTING US 30 TRANSIT ACCESS AND FACILITIES

Figure 16 shows the locations of the existing bus stops and park-and-ride facilities located along, or in close proximity to, US 30. Table 6 evaluates the strengths and weaknesses of these facilities, including access to them. Table 6 also identifies opportunities for, and constraints to, making improvements at these locations. Due to the informal nature of the existing park-and-ride agreements, data regarding the specific number of spaces is not available; however, County staff have indicated that each site generally has at least 25 spaces available.



EXISTING BUS STOPS AND PARK-AND-RIDE FACILITIES ALONG US 30
COLUMBIA COUNTY, OREGON

FIGURE **16**

H:\profile\9446 - ColCoTransit\GIS\Fig6-ExFacilities.mxd

Table 6
Evaluation of Existing Transit Facilities and Access

ID #	Description	Strengths	Weaknesses	Opportunities	Constraints
1	Chinook Plaza 52115 SW Chinook Way (US 30 and Watts Road), Scappoose	• Signalized pedestrian crossings on US 30 with curb ramps and sidewalk • Bikes lanes on US 30 • No rail crossing • Close to activity centers • Bus stop signage • Park-and-ride • Good sidewalk connectivity	• Uneven sidewalk along the west side of US 30 north of the stop • Stop location in parking lot creates potential for pedestrian/vehicle conflicts • No landing pad • Park-and-ride spaces not marked • Landscaping blocks accessibility from US 30 for disabled passengers, forcing out-of-direction travel for an individual in a wheelchair coming from sidewalk along US 30 • No wayfinding signage to the park-and-ride	• Sidewalk along Watts Road could be used in place of an accessible pad located at the stop.	• Property owner does not want a formal agreement or any improvements constructed on-site.
2	NE 1st Street & E Columbia Avenue (Adjacent to the Scappoose City Hall at 33568 E Columbia Avenue), Scappoose	• Signalized US 30 pedestrian crossing with curb ramps and sidewalk • Close to activity centers • Sidewalks on US 30 and Columbia • Park-and-ride	• Sidewalk along north side of Columbia between stop and US 30 is in poor condition • At-grade rail crossing • No sidewalk on 1st • No bus stop signage • No agreement in place with ODOT for park-and-ride use • Limited lighting	• Potential for park-and-ride on east side of 1st in gravel area near City Hall • Only a short section of sidewalk needs repair • Only a short section of 1st needs sidewalk	• ODOT Rail approval and ODOT lease would be needed to established to formalize the site as a park-and-ride
3	Warren Baptist Church 56523 Columbia River Highway (US 30 and Church Road),Warren	• Shelter • Park-and-ride • Shoulder on Church Road • Bike lanes on US 30 • No rail crossing • On-site park-and-ride signage	• No ped facilities nearby • Surrounding parking lot appeared to be near capacity on day of visit • No rail grade crossing or marked US 30 pedestrian crossing to residences east of highway and railroad • Limited lighting • No wayfinding signage to the park-and-ride	• Potential to expand park-and-ride capacity using area in the back of the church.	• Expanded park-and-ride capacity may be limited at location due to apparent use of nearby field for athletics. Church board has previously turned down a request to expand behind the church.

Table 6
Evaluation of Existing Transit Facilities and Access (cont'd.)

ID #	Description	Strengths	Weaknesses	Opportunities	Constraints
4	Rite Aid/Safeway 785 S Columbia River Hwy (US 30 and Gable Road), St Helens	• Shelter • Park-and-ride (approx. 40 spaces) • Close proximity to signalized pedestrian crossing of US 30 • Bike lanes on US 30 • Sidewalk on west side of US 30 with curb ramps at intersections • Curb ramp to shelter • No rail crossing • Close to activity centers	• Park-and-ride spaces not marked • Stop location in parking lot creates potential for pedestrian/vehicle conflicts • No sidewalks into the parking lot from US 30 • Bus stop and shelter located on the wrong side of the bus for northbound buses	• Potential to create formalized park-and-ride agreement so spaces can be marked for park-and-ride users	• Park-and-ride capacity may be limited due to nature of businesses that utilize the parking lot • Constructing sidewalk to stop location from US 30 may negatively impact parking and would require property owner permission
5	Ace Hardware/ Walgreens 175 S Columbia River Hwy (US 30 and Columbia Boulevard), St. Helens (Flex Route Only)	• Shelter • Signalized US 30 pedestrian crossing with curb ramps and sidewalks on west side of US 30 • Marked crosswalk across Columbia to stop with curb ramps on south side • Close to activity centers • No rail crossing • Bike lanes on US 30 • Sidewalk along both sides of Columbia, west of US 30	• Sidewalk along US 30 is only on west side and is discontinuous to the north • Curb ramp in southeast corner of US 30 intersection leads to nowhere (with rail nearby) • Signal pole in the curb ramp in northeast corner of US 30 intersection • No curb ramp on north side of crosswalk across Columbia near stop (crosswalk does not direct pedestrians to curb ramp on south side either) • No park-and-ride	• A curb ramp on the north side of the Columbia crosswalk would be relatively inexpensive • Columbia Rider advertising on the shelter could help promote service	• Property owners have expressed that they are not interested in a park-and-ride agreement

Table 6
Evaluation of Existing Transit Facilities and Access (cont'd.)

ID #	Description	Strengths	Weaknesses	Opportunities	Constraints
6	Columbia Commons 500 N Hwy 30 (US 30 and Pittsburg Rd), St. Helens	• Shelter • Park-and-Ride (approx. 30 spaces) • Close to activity centers • No rail crossing	• No sidewalk along west side of US 30 • No sidewalk into parking lot • Stop location in parking lot creates potential for pedestrian/vehicle conflicts • Park-and-ride spaces not marked • No wayfinding signage to the park-and-ride	• Potential to create formalized park-and-ride agreement so spaces can be marked for park-and-ride users	• Stop location limits ability to construct a raised pad at the stop • Parking lot was near capacity during site visit (could limit ability to expand park-and-ride capacity) • Stop location is far from US 30, making improved accessibility to US 30 potentially expensive
7	Rainier Transit Center 208 B Street Rainier	• Bike lanes on US 30 • Relatively low speeds on US 30 • Park-and-ride • Signalized pedestrian crossing of US 30 at 1st (300 feet away) • Marked crosswalk across US 30 just west of stop • Sidewalk around stop with curb ramps • Close to activity centers • No rail crossing	• Sidewalk area not clearly defined in immediate vicinity of the center • Sign posts and poles in sidewalk • Park-and-ride spaces and bus stop not marked • No wayfinding signage to the park-and-ride	• Potential to create a well signed park-and-ride and stop at the transit center to improve ease of use of the service and promote it within the community	• Cost for removing poles from sidewalk
8	Alston Corner (Old Feed Store) Alston-Mayger Rd and Old Columbia River Highway (US 30 and Old Rainier Rd)	• Close to activity centers • Relatively low speeds and low traffic volumes on Old Columbia River Highway • No rail crossing	• No sidewalk or bike lanes in vicinity (limited shoulder) • Bus stop not signed • No park-and-ride spaces • Lighting is limited	• Potential to sign the bus stop in order to improve ease of use of the service and promote it within the community • Potential for a limited number of park-and-ride spaces at the nearby tavern	• Limited opportunity for park-and-ride spaces • Cost to add pedestrian facilities

Table 6
Evaluation of Existing Transit Facilities and Access (cont'd.)

ID #	Description	Strengths	Weaknesses	Opportunities	Constraints
9	Clatskanie Transit Center 280 E Columbia River Hwy, Clatskanie	• Bike lanes on US 30 • Relatively low speeds on US 30 • Sidewalk on US 30 • No rail crossing • Close to activity centers	• Sign posts and poles in sidewalks • High density of driveways along US 30 • No US 30 pedestrian crossing in immediate vicinity • Park-and-ride spaces and bus stop not marked (site is currently under development) • No wayfinding signage to the park-and-ride	• Potential to create a well signed park-and-ride and stop at the transit center to improve ease of use of the service and promote it within the community • Relatively low speeds on US 30 could make installing a marked pedestrian crossing feasible	• Cost for removing poles from sidewalk.
10	Clatskanie Safeway 401 W Columbia River Hwy, Clatskanie	• Park-and-ride • Close to activity centers • No rail crossing • Marked crosswalk across US 30 with overhead flashers and signage and curb ramps • Bike lanes on US 30 • Sidewalk on US 30 and Bel Air Drive	• Pole in curb ramp on north side of US 30 crossing • Sidewalk is only in fair condition on Bel Air • Park-and-ride spaces and bus stop not marked • US 30 is transitioning from a rural high speed highway in the stop vicinity • No way finding signage to the park-and-ride	• Potential to create formalized park-and-ride agreement so spaces can be marked for park-and-ride users	• Cost for removing post from curb ramp. • Due to nature of surrounding businesses, capacity for park-and-ride spaces may be limited • Property owners have not wanted a formal park-and-ride agreement in the past
11	West-Mart Store 49332 Highway 30, Westport	• Connection to Sunset Empire Westport Shuttle • No rail crossing • Close to activity center • Bike lanes on US 30 • Bus stop signage provided	• Limited sidewalks in surrounding vicinity • No park-and-ride • No marked US 30 pedestrian crossings in the site vicinity • No landing pad	• Potential for park-and-ride partnership with nearby Westport Community Church • Two-lane cross-section on US 30 could make installing a marked pedestrian crossing feasible	• The gate to the church parking lot is sometimes closed during the day. • US 30 posted speed is higher than ODOT guidelines for installing a marked crosswalk. • Truck parking activity in front of convenience store

Section 5
Customer, Community, and Stakeholder Preference Surveys

Customer, Community, and Stakeholder Preference Surveys

This section presents and summarizes the results of three separate efforts, all designed to capture the attitudes and opinions of Columbia County residents. The Resident Survey was a random telephone survey of county residents and gathered overall opinions towards Columbia County Rider, transit needs, and dedicated transit funding issues. The Rider Survey was an on-board survey of existing transit riders to understand how the service is currently used, and opinions on the quality of service and future service needs. The Stakeholder Interviews were designed to talk directly to employers, agencies, schools, and other groups who have an interest in the provision of transit service.

The results of each of the efforts are summarized below. Detailed findings from each study are included as appendices.

RESIDENT SURVEY

Executive Summary

The primary purpose of this study was to determine the level of support the voting public would have toward the creation of a Special Transit District within Columbia County. This would be accomplished by putting a future measure to the voters and asking for funding through property taxes to help continue and/or expand public transportation within Columbia County. The timing of this survey was set to occur after the mailing of the 2008 property tax bills. Data were collected via a telephone survey between October 21st and November 3rd, prior to the Fall General Elections. This was considered to be prime timing to ask voters for their opinions regarding money measures. Due to the pre-election economy, other money measures on the November ballot, and tax statements in the voters' hands, this provided the best respondent sensitivity and awareness to public issues. *Detailed findings can be found in Appendix "F."*

Funding a Transit District

- We asked the voters how they felt about funding a Special Transit District through property taxes at a rate of $0.30 per $1000.00 of assessed value. On a 0-10 scale, they rated this measure proposal at 5.3, slightly favoring the proposal. If we assumed those individuals who rated this proposal 0-2 on the scale as opposed, and 8-10 scores as in favor, we see 31 percent would oppose the measure, 31 percent are undecided, and 38 percent would be in favor.

- In a secondary funding question, we asked voters if the measure were asking for half of the amount, or $0.15 per $1000.00 of assessed value, would their feelings about the measure change or remain the same. On a 0-10 scale the mean score changed to 6.1. This had an effect of changing the opposed to 24 percent, the undecided to 28 percent, and those in favor to 48 percent.

- The difference in change between the two proposals is approximately 10 percent. There is less of a change on the opposed. The opposed are less likely to change position with the amount of money the measure is asking. When asked why they would oppose or support the measure, three main issues that arise are the county's need for public transportation, a negative response to additional taxes, and requests for more information.

- Thirteen percent of the sample own businesses within Columbia County. When asked about an employer tax, the result was a 45 percent favorable rating and 55 percent opposed. There may have also been issues regarding the meaning of an "employer tax" per employee. Confusion may exist as to whether the tax would be assessed on the employer or the employee.

- The need for specific information within the measure is necessary for passage. The undecided voters concede that it will benefit the community as a whole, but they want to know exactly how the money is going to be used. How will it effect expansion, equipment needs, and fare structures.

- There is a prevailing sense of civic responsibility and a feeling that an investment in public transportation would benefit the health of the community as a whole.

Satisfaction with Public Transit

- Also surveyed was voter satisfaction with the current public transportation available in Columbia County. Ninety percent of the voters surveyed felt that they could rate, on a scale of 0-10, their satisfaction with public transportation in Columbia County. The average rating was 4.9 on the scale. Thirty-six percent rated public transportation a 7-10. However, the most common score response was "0" at 19.5 percent and 15.3 percent scored public transportation "5", a neutral score.

Public Transit Experience and Future Needs

- Twenty-one percent, (84 households) of the voters surveyed said that someone in their household had used public transportation at one time or another. Of the eighty-four households, twenty-one percent considered their household regular users of Columbia County public transportation. Comments collected during the survey reflected that the top reasons for their rating of current public transportation were unfamiliarity with the services currently provided, the need for more buses/stops/places serviced, and that the service currently provided is good.

- When voters were asked to rank public transportation services that the county is considering, the highest ranking response was increasing service for those who are elderly or disabled. The second highest ranking was adding new express bus routes to Portland, Beaverton, Longview and Astoria, and third highest ranking was supporting an on-line service for finding ride share partners for regular commute trips.

- The following is the complete list of the services presented in the survey. They are arranged in order of mean score values.
    - 7.9…increasing service for those who are elderly or disabled.
    - 6.6…adding new express bus routes to Portland/Beaverton/Longview/Astoria.
    - 6.5…an on-line service for finding ride share partners for regular commute trips.
    - 6.4…commuter rail to run on tracks between St. Helens and Portland.
    - 6.2…adding new bus routes where service does not currently exist.
    - 6.2…adding more frequent service within/between towns in Columbia County.
- There is interesting insight into public transportation funding support when we start to give specific service information to the voting public. The average mean scores on the same type of scales as the money measure tax questions are considerably higher in this set of questioning. It shows that as the voting public receives additional information as to use of funding, neutral voters in this survey have become more supportive of the idea of public funding.
- If public transportation was expanded in Columbia County, the likelihood of voter households using it in the future had a mean score of 5.2 on a scale of 0-10. This equates to 49 percent likely, 11 percent undecided, and 40 percent unlikely.

RIDER SURVEY

Executive Summary

The Rider Survey was designed to gather data from existing riders: who uses the service, characteristics of their trip, and opinions of both service quality and the need for new services. The surveys were distributed on all fixed-route, Flex-Route, and Dial-a-Ride services. Because of the intrinsic differences between fixed-route and Dial-a-Ride services, the results are summarized for each of the service types. The Flex-Route service is considered with the Dial-a-Ride service because the responses and ridership more closely resemble the Dial-a-Ride profile. It should be recognized that these are the opinions of existing riders whose needs are at least minimally met by the existing service. It doesn't reflect those riders who would start riding if service were improved in some way. *Detailed findings can be found in Appendix "G."*

St. Helens to Downtown Portland

- The fixed-route to downtown Portland is predominantly a commuter route serving workers and some students.
- Over 80% of the riders have a car available for the trip, with 66% of the riders driving to a park and ride to access the bus.

- Over one-third of the riders had been denied a ride at some time due to the policy that does not allow standing passengers, indicating that a car may be a necessary backup in case the bus is full.

- Eighteen percent of the riders transfer to TriMet to complete their trip.

- Most riders pay with a monthly pass and find it easy to understand what fare to pay.

- Overall, customers are satisfied with the service, with all service attributes (on-time performance, cleanliness of the vehicles, value for the fare paid, conveniently located bus stops, and "gets me where I want to go") having combined good or excellent scores of 80% or higher. The one area that fell short was frequency of service, with a combined good or excellent score of just 47%. Longer hours of service was the number one request for service improvements (33% of the mentions), along with 11% wanting more frequent service within the existing hours of service.

- The bus driver or on-board the vehicle was cited as the source of information for 41% of the riders; the Columbia County Rider website was next highest with 38% citing it as their source of information.

- The age and income distributions reflect the work commuter profile, with the majority of riders being between the ages of 35 and 65. It had the highest income of any of the services, with 37% having an annual income of $75,000 or more.

- Overall satisfaction with Columbia County Rider services is very high with 91% stating they are somewhat or very satisfied.

St. Helens to PCC/Willow Creek

- The fixed-route to PCC Rock Creek and the Willow Creek Transit Center predominantly serves students, with 84% of the riders being students. This is supported by the age of the riders: 81% are under the age of 25. This is also the fixed-route with the lowest annual income: 43% had an income under $15,000.

- Less than half of the riders have a car available for the trip. Thirty percent of the riders walked to the bus stop, 30% drove and parked, and 25% were dropped off at the stop. The remaining 15% used other means, mostly bicycles.

- Most riders pay with cash, although 38% ride frequency enough to use a monthly pass.

- Overall, customers are less satisfied with the service than riders of the other two fixed-routes. On-time performance had the lowest rating, with only 25% stating it was excellent. These riders had the lowest rating for conveniently located bus stops; with 45% rating it excellent and only 24% rating it good. Interestingly, the riders on this route gave the best rating for frequency, with 34% stating it was excellent. Most all other factors were in line with the other routes, receiving strong combined good or excellent scores of 80% or higher.

- Suggestions for service improvements included: longer hours of service both in the morning and evening times (15%); more frequent service throughout the day (15%); weekend service or weekend routes (12%); the arrival or departure times changed for their route (12%); and fares to not be increased, to be able to purchase tickets in bulk, or for the fare to be in even dollar increments (12%).

- These riders are the most web-oriented, with 45% getting their information from the website. Friends/relatives was the second most used source (34%). The students are the least likely to get information from the bus driver or on-board the vehicle (18%).

- Overall satisfaction with Columbia County Rider services is high with 86% stating they are somewhat or very satisfied.

Westport to Longview/Kelso

- The fixed-route from Westport to Longview/Kelso had no survey respondents who were traveling for work or school. Over half of the trips were "other" purposes, such as social service agency trips. The remaining trips were split between shopping and medical appointments.

- The primary method of getting to the stop was by walking (60%), despite 55% having a car available for the trip. Eighteen percent of the riders reported transferring to CUBS to complete their trip.

- Most of the riders are in the 50 to 65 years age group, and while not the lowest income group, no one reported an annual income over $45,000.

- Most riders pay with cash (82%). The remaining riders reported paying using an "other" method, indicating there may be a subsidized fare provided to some riders. With no commuters using the service and an average of 12 days of service per month, no one paid with a monthly pass. These riders gave the highest rating of all routes, however, for value for the fare paid, with 73% rating it excellent.

- Overall, customers are satisfied with all aspects of the service except for service frequency, which received the highest poor rating of any of the routes or service attributes. Twenty-seven percent of the riders rated the frequency as somewhat poor. The most common request for service improvements was for longer hours of service and more frequent service.

- These riders are the least web-oriented, with no one getting their information from the website. Information sources were split between the bus driver/on-board the vehicle and a neighborhood center.

- Overall satisfaction with Columbia County Rider services is very high with 100% stating they are somewhat or very satisfied.

Flex-Route

- The Flex-Route serving St. Helens and Scappoose serves a variety of trip purposes, including medical trips (41%), work trips (30%) and shopping trips (23%). There were no school trips reported on Flex-Route during the survey period.

- Almost everyone paid with cash, and has no difficulty understanding what fare to pay. In addition, 90% of the riders rated the value for the fare paid as excellent.

- With over 70% excellent ratings on almost all service attributes, customers are very satisfied with their service. The lowest rating was for service frequency, indicating that customers would like to see buses come more often than every 90 minutes. Customers had very few suggestions for service improvements, the highest category of response being 16% stating they were grateful for the service.

- Very few riders get their information from the website. Information sources were split between the bus driver/on-board the vehicle and a neighborhood center.

- The riders are fairly well distributed over all age categories. The income levels are low, with 73% responding their annual income is less than $15,000. This is perhaps why no one reported having a car available for their trip.

- Overall satisfaction with Columbia County Rider services is very high with 95% stating they are very satisfied.

Dial-a-Ride

Dial-a-Ride service is available throughout the county, with vehicles operating out of Clatskanie, Rainier, Vernonia, and St. Helens/Scappoose. The survey results are combined here into a single profile. *Detailed results by area are found in Appendix "G."*

- Dial-a-Ride serves a variety of trip purposes, the most common of which is medical trips (approximately 40%). Work trips are common in some areas, along with shopping trips. A small percentage of the trips are for school.

- The majority of riders paid with cash, although a significant number said "other" indicating a subsidized fare may be provided to some riders. Although not as high as the Flex-Route, over two-thirds of riders rated the value for the fare paid as excellent. Only riders in Clatskanie indicated any level of difficulty in understanding what fare to pay (28% somewhat difficult).

- At least 60% of all riders gave an excellent rating for all service attributes. The Clatskanie service had a fairly consistent, albeit low, number of riders giving a somewhat poor rating for almost all service attributes which may warrant further investigation.

- These riders are the least web-oriented, with very few riders getting their information from the website. Information sources were split between the bus driver/on-board the vehicle and friends/relatives.

- Approximately one-third of the riders are age 65 or older, with the next largest category being 50-65 years old. Clatskanie is unusual in that it has no one in the 50-65 age group, but is instead has 37% of their riders in the 35-50 age group. The income levels are low, with over 85% responding their annual income is less than $30,000. Correspondingly, only about 12% of riders reported having a car available for their trip.

- Overall satisfaction with Columbia County Rider services is very high, with the exception of Clatskanie service, where 32% gave a rating of somewhat or very dissatisfied.

STAKEHOLDER INTERVIEWS

Executive Summary

The Stakeholder Interviews were designed to get information regarding transit needs directly from stakeholders regarding current transportation needs, and support for a potential transit district and tax measure. The Stakeholder Survey summarizes the responses to a survey distributed to stakeholders in Columbia County, or through discussions at stakeholder meetings. The second section discusses results from a discussion with social service agencies through the Community Action Team. *Detailed findings can be found in Appendix "H".*

Main Themes from the Stakeholder Survey

- The majority feel that it is a vital service for those who can't drive or are disabled. The majority also feel that the service is getting better and that the public needs to be made more aware that the service is provided and that it is user-friendly.

- Service needs identified were: weekend service to/from Portland transit centers, especially during big Columbia County events; connecting Clatskanie and Vernonia to St. Helens and then Portland; local weekend service within Columbia County; and service directly to high-tech employers in Hillsboro.

- Given limited funding, the top priorities given by respondents are: reduced rate fares for senior and low income citizens; medical trips for seniors and children; and increased routes and times for commuters.

- A majority of respondents would support the measure because they see it is needed for those without other means of transportation and that it is used by commuters getting to work. A minority would need to be convinced that it would help their people, or suggested people should pay for their own transportation.

Main Themes from the Community Action Team Meeting

- There is a need for North-South Connectivity for the County. The social service agencies are located in St. Helens, but many of their clients are in the north and do not have transit service to access the county services.

- There is a need for increased advertising about services already provided, particularly park-n-ride service, to gain support for additional proposed services.

- There is a need for discounted *monthly passes* for seniors, persons with disabilities and low income residents. The passes could be monitored and distributed by Community Action Team.

Section 6
Transit Funding and
District Formation

Transit Funding and District Formation

FARE SYSTEM OVERVIEW

Fare decisions are composed of four fundamental parameters: fare policy, fare strategy, fare structure, and fare collection technology. The following sections describe these parameters and the existing conditions in Columbia County.

Fare Policy

Fare policy applies to all aspects of fare structure development and pricing, and the selection of fare collection and payment methods. A transit agency's fare policy establishes the principles and goals underlying and guiding the agency's pricing-related decisions. The policy may be spelled out in a specific fare policy or may be implied in the agency's other formal policies and actions.

Fare Policy Goals

Depending on their specific needs and situations, transit agencies will identify different sets of goals for their fare structures and systems. These goals can be grouped into four basic categories: customer-related, financial, management-related, and political. Many fare policy goals are in competition with each other. For example, a fare strategy that maximizes ridership tends to reduce revenue (and vice versa), while meeting a fare revenue target may make transit unaffordable to those who need it the most. Similarly, it is impossible to increase fare options and reduce complexity simultaneously. Therefore, a transit agency must identify which goals it considers most important. Establishing fare policy is a balancing act: the goals must be prioritized if the policy is to lead to a useful fare structure or system. *A sample set of Fare Policy Goals is included as Appendix "I."*

Current Columbia County Fare Policy

Columbia County Rider has inherited a fare structure that was developed over 15 years ago. No formal fare policy was adopted, but the fare structure indicates that it was likely to maximize political acceptability by charging based on distance traveled. This policy recognizes the higher costs with longer travel and is easily understood and accepted by the public. New services (e.g., the Flex-Route) have been priced based on the same goal of public acceptance.

Fare Strategy

A transit agency's fare strategy refers to its general fare collection and payment approaches. Strategy is a fundamental component of the fare structure, which also includes the fare levels and the payment options.

Fare strategies fall into two basic categories: flat and differentiated. With a flat strategy, riders are charged the same fare, regardless of the length of trip, time of day, or speed or quality of service. With a differentiated strategy, fares vary according to one or more of those parameters. The different types of fare strategies are summarized as follows:

- **Flat fare:** the simplest, most common fare strategy is one based on a flat fare. It may be—and often is—combined with one or more types of prepaid fare options.

- **Distance-based or zonal pricing:** distance-based fares (zonal charges or surcharges beyond a certain distance) are often considered on the theory that people should pay more for longer trips. This is typically the most complicated type of structure, for both the rider and the transit agency.

- **Time-based (e.g., peak/off-peak) differential:** a time-based method of charging is often considered because: (1) the peak-period market is generally less sensitive to and has a greater ability to pay for fare increases; and (2) the costs of providing service and accommodating additional riders are significantly higher in peak than in off-peak hours. Time-based pricing does complicates the fare structure. The peak/off-peak differential may involve all off-peak hours or, alternatively, a late-night, weekend, or Sunday-only discount.

- **Service-based (e.g., bus or rail) differential**: differentiating fares by mode (i.e., a higher fare for rail than for bus) or by "speed" (i.e., an express bus surcharge) is often contemplated as a means to reflect (1) the higher level of service provided, (2) the longer trip distances typically traveled, and (3) for rail, the higher operating costs of rail service. Moreover, because rail riders typically display lower elasticities to fare increases, they may be considered good candidates for higher fares than bus riders.

Along with these strategies, transit agencies must develop transfer pricing policy—a key element in any agency in which transferring between routes or modes is at all common. Decisions on transfer pricing policy often depend on the service design and convenience. For instance, a grid network transit system requires a great deal of transfer activity. Other systems restructure their bus service so as to feed rail lines or other "trunk" service.

The basic service philosophy underlying a route network should be a primary consideration in establishing a transfer pricing and usage policy. The pricing policy also must consider how different options affect revenue—i.e., the convenience of a free or low-priced transfer versus the forgone revenue from such a strategy—as well as administrative and operational issues associated with the options. The basic pricing options for transfers can range anywhere from free or nearly free, to upgrades between different services, to no transfers (rider pays the full fare each time the board). Transfer pricing should be established on the basis of the agency's service design, coupled with the revenue needs and the extent of current transfer activity.

Current Columbia County Fare Strategy

Columbia County Rider has a mix of fare strategies:

- The fixed-route service uses a mix of a service-based fare strategy and a distance-based fare. The longer-distance fixed-route services have one fare, with a lower fare for trips solely within Columbia County.

- The Flex-Route has its own fare structure, which has a lower fare between St. Helens and Scappoose than the fixed-route service.
- Demand-responsive fares are set based on the distance traveled.
- A reduced fare is offered, available to seniors (55 and over), persons with disabilities, students, and children (under age 10).
- Transfers are not directly addressed in the current fare strategy. Most transfer activity occurs between other service providers, such as TriMet and SETD, not within the Columbia County Rider system. The service providers' fare systems are not integrated, however, requiring the customer to pay full fare upon boarding each system.

Fare Structure

Fare structure is the combination of one or more fare strategies with specific fare levels. The process of developing fare policy and making changes to the fare structure varies widely from one transit agency to the next.

The base fare is the industry terminology for the minimum cash price for an adult to board a vehicle for a single trip. Surcharges based on the Fare Strategy, such as zone or peak hour surcharges, and discounts (such as senior fares) are applied to the base cash fare.

In addition to cash fares, transit districts often provide pre-paid fare media as a convenience to their customers. Books of tickets provide single-ride trips so that the rider doesn't need to have cash on hand. Ticket books may be sold at a discount to encourage purchase and ridership. Unlimited-use passes are another common element of the fare structure that encourages ridership and rewards frequent riders by providing a low cost per trip. Passes are often priced for a day, week, a month or a year. The pricing of a monthly pass is typically set at anywhere from 30 to 45 one-way trips per month.

One key aspect in which agencies often differ is the frequency of and impetus for fare evaluations and changes. The major reasons for transit agencies to review or change fares are as follows:

- **Need for additional revenue:** this is the single most frequently cited impetus for pursuing a fare increase, and also an essential element of improving the fare recovery ratio. This is related to the desire to maintain pace with inflation
- **Declining ridership:** since U.S. transit agencies depend heavily on the subsidies provided by political bodies, there is a strong incentive to develop and maintain high ridership levels. Political acceptability will depend on both the absolute level of ridership and the equity effect of providing services to different groups and in different geographical areas.
- **Fare structure complexity:** some agencies simplify their fare structure if it is overly complicated or contains unnecessary inconsistencies. This is tied to the goal of increasing simplicity from the rider's point of view—thereby increasing ridership—and reducing the administrative and operational burden caused by a complex fare structure.

- **Introduction of a new mode:** the introduction of a new type of service (e.g., light rail or commuter rail line) typically triggers a review of the agency's fare structure. The motivating factor is the desire to integrate the new mode into the current system effectively.

- **Introduction of a new fare collection technology:** the introduction of a new type of fare collection technology can facilitate the use of a broad range of new fare options. The new fare structure may involve no fare level changes, but changes in the types and pricing of prepaid fare media.

- **Interest in innovative fare and marketing strategies:** because of concern over maintaining or increasing ridership, some agencies have restructured fares primarily to take advantage of the marketing potential of innovative pricing strategies. A deep discounting strategy—and an emphasis on prepayment in general—has often served as the focus for such activities.

There is no single motivation for reviewing and modifying fare policies or structures. The most common reason for reviewing fares is to increase revenue, but the desire to reverse declining ridership trends is also important.

Current Columbia County Fare Structure

Columbia County Rider offers cash, non-discounted tickets, and monthly passes. The fixed-route cash fare is set based on start and end of trip (St. Helens to Scappoose is $3.30 while St. Helens to Portland is $4.80). The monthly pass, however, is a flat rate at $106.80. Reduced fares follow the same structure as the adult fare, with a zone-based cash fare and a flat-rate monthly pass fare.

Demand-responsive fares are based solely on distance traveled; there is no reduced fare offered, nor is a monthly pass valid on the demand-responsive service.

Fare policy decisions are made as a result of a specific problem. The first fare increase in over 15 years was implemented November 1, 2008 to cover increasing costs predominantly associated with high diesel fuel costs.

Fare Collection Technology

The technology used in fare payment and collection affects the efficiency of these functions and the range of fare strategies and payment options that can be employed. Moreover, improved technology can contribute to improvements in revenue control, data collection, operations planning, and service integration. These improvements have associated costs, including direct (the actual expense of procuring the equipment and producing the fare media) and indirect (training of operating and maintenance personnel, education of riders, testing and installation of equipment, and development of new accounting and processing procedures). The most common methods of fare media are described as follows:

- **Cash:** the most common means of paying for transit rides. It is readily obtainable and requires no special sale or distribution arrangement, but riders are usually required to use exact change. Cash can be difficult for agencies to process and is most susceptible to theft by transit employees. A "drop box" style farebox, where the money simply falls into a vault is the simplest technology. Registering fareboxes count the revenue as it is deposited and provided a higher level of fiscal accountability.

- **Paper ticket/pass:** contain printed information and are widely used in the transit industry, particularly in the proof-of-payment systems. These tickets can be used for single-rides or multi-rides (a single multi-ride ticket or a "book" of tickets). These fare instruments are universally used in the industry and are the least expensive to implement.

- **Magnetic ticket:** can be used for any type of payment option: single-ride, multi-ride, period pass, or stored value. They offer extensive flexibility to both the operator and the rider. Magnetic tickets are used mostly in systems that have gates and turnstiles to control access, egress, or both; however, they can be used in bus systems that have ticket readers and processing units attached to their fareboxes. These systems are more expensive than a simple farebox and less expensive than a smart card system.

- **Smart card:** an integrated circuit card that contains a microprocessor (i.e., a computer chip) and has built-in logic. Smart cards offer a greater measure of security than magnetic-stripe cards and can be used as a security access instrument as well as an instrument for stored value. The higher capital costs make this a viable option for large systems and those that have a significant issue with fare integration between providers, such as in the San Francisco Bay Area where there are 17 major transit providers.

Current Columbia County Fare Collection Technology

As in most small, rural transit districts, the technology for collecting fares is simple, consisting primarily of a cash box onboard the vehicles. Operators sell books of paper tickets and monthly passes, which are also available at the County offices. The primary method of fare payment is cash which is collected by operators in a cash box on-board the vehicle. This is a potential issue in terms of potential theft, and even a security issue for operators if it known that operators have access to cash on the vehicles. While pre-paid fares are advantageous for demand-responsive services also, the low daily ridership and reservation service for trips makes this less of an issue.

PEER REVIEW

Very few transit agencies in the country have formal adopted fare policy and strategy statements. The peer review therefore consists of analyzing the fare structure as provided on agency websites. The peer review was conducted of neighboring transit agencies, other Oregon transit agencies, and selected national transit agencies. *The peer agency fare structures are included as Appendix "J."*

Each transit district has its own unique operating conditions and constraints. Most small and rural transit districts offer a flat fare for local service, with longer distance trips handled in a variety of ways. Books of tickets and monthly passes are typically offered, with varying levels of discount.

Columbia County has a large rural service area and connects with other transit districts and a larger urban center (Portland). There are several examples of fare systems that share this service structure:

- CARTS, provides service to greater Austin, Texas, with long-distance service from the counties surrounding Austin that also serves to connect local communities.
- Foothills Transit in Southern California serves the San Gabriel and Pomona Valleys with local service and provides express service to Los Angeles.
- Roaring Forks Valley Transit (RFVT) provides service in the rural mountain communities of Colorado, including long-distance service connecting the mountain communities and the large employment centers, such as Aspen.

The fare structure depends on the number of routes being operated, the distance traveled, and the size of the communities that the routes serve. Systems such as CARTS or RFVT, with many long-distance routes that serve local communities as well as a major destination, typically have zonal fares. Systems with one or two long-distance routes or specialty services, such as Foothills Transit's commuter express and Silver Bullet service, typically have a since fare for those services.

For transit districts funded through Section 9 allocations, the Federal Transit Administration requires that seniors (ages 65+) and persons with disabilities travel for half price during off-peak hours. Rural transit districts do not have this requirement. Nevertheless, it is consistent across almost all peer agencies to follow this guideline in setting senior and disabled fixed route fares, although the definition of senior ranges from 55 to 65. Columbia County currently provides a discount of approximately 33% for seniors and persons with disabilities; seniors are defined as 55 and older.

A wide range of fare structures is provided through the review of peer cities, each meeting different policy and operational needs. Once a service and routing strategy has been determined, fare systems with similar service strategies can be reviewed in more detail to gain additional insight.

FARE OPTIONS

This section looks at options for both fixed-route and demand-responsive fares. It is followed by a section on fare issues that apply to the fare system regardless of which options are selected.

Fixed Route Fares

As Columbia County looks forward, there is the opportunity to establish a fare policy that provides a consistent and coherent rationale for setting fares. Following are four options that look to address different issues being confronted by Columbia County, and how they can be addressed through fares. Each option is defined by its fare policy goal and can be structured to maintain existing fare revenues or increase fare revenues, as desired.

Option 1: Maximize revenue through zone-based fares

Columbia County faces increasing ridership with limited funding. While the increase in ridership is desired, the County needs to ensure adequate revenue from fares. Fares based on distance travelled, or zone-based fares, is one of the most common methods of charging. Because it is intuitive to pay more for longer trips, it well accepted by the public.

Columbia County could be set up as a four-zone system, where each major area has its zone: St. Helens/Scappoose, Rainier, Clatskanie, and Vernonia. Kelso/Longview, Hillsboro, and Portland would each be a separate zone. As an example, travel within each zone would cost $2. Due to the distance to Portland and Hillsboro, they could have a $4 zone fee. The fare would be calculated by counting adding up the fare for each zone.

The benefits of this structure are that it is simple and well and understood by the public. The drawback is that people must calculate a fare based on the origin and destination. This is less of a concern in Columbia County due to the distances between the towns.

Option 2: Maximize social equity through income-based fares

Many transit riders in Columbia County are low income. Students and persons with lower-paying jobs are challenged to pay the fare to get to school and jobs in Portland or across the county. Others have the ability to pay the fare. Income-based fares would be developed using existing State and County social service agency qualification criteria.

Typically this type of fare is implemented in addition to the regular fare structure. Qualified low income persons would be able to ride at the same rate as seniors and persons with disabilities. This "reduced fare" could be established at either two-thirds or half of the regular adult fare.

The benefit of this fare is that it recognizes people's ability to pay in order to keep transit affordable to everyone who needs it. The drawback is that implementation can be difficult to administer. Qualifying persons as low-income needs to be reviewed regularly to ensure current income status, and can be done through existing social service agency programs. Most transit districts do not have low-income programs due to the high cost to administer the program and the potential for abuse.

Option 3: Manage demand through an off-peak discount

Columbia County has high demand in peak hours in the peak direction for fixed route service that results in some riders being passed up. There is plenty of capacity for trips at other times of the day, and in the reverse-commute direction. High peak demand can result in having to purchasing additional vehicles and hiring additional drivers specifically to meet peak hour needs. Charging a discount in the off-peak period would encourage shifting trips for those who can. For example, a trip between 5 a.m. and 8 a.m. from Scappoose to Portland would cost $6 while a trip at 8:30 a.m. would cost $3.

The benefits of this fare are that it encourages off-peak trips, maximizes revenue and minimizes the need for additional capital and operating costs. The drawbacks are that many peak hour trips cannot be shifted due to work schedules and school classroom start times.

Option 4: Maximize ridership and minimize revenue loss

Currently, Columbia County offers limited local service resulting in most local trips within the County being taken on dial-a-ride, demand responsive service. The need to schedule in advance, the constraints of vehicles to provide the trips, and the cost per trip make this a less-than-optimal solution for a potentially large market. The success of the recently implemented "flex-route" service is proof that regular local service would be used by residents. In addition, this frees up more time to provide dial-a-ride service to those who need it.

A service strategy of regional fixed-route services that provide intra- and inter-county travel, supplemented by local flex-routes to serve the individual communities would advocate for a type of service-based fare structure. For example, all regional routes would have a flat fare, such as $5.00 per trip, with all local flex-route fares being $2.00 per trip.

The benefit of this fare is its simplicity yet still charging based on distance traveled. The drawback is that any trip on the regional route, no matter how short, would be the higher fare.

Demand Response Fares

Columbia County Rider's dial-a-ride service has a separate fare structure from the fixed-route service, priced based on a trip's origin and destination. This allows the fares reflect the actual costs of the trip, but does not lend it to being posted on the web or in printed materials for customers to reference. In addition, since demand-responsive service can pick up and drop off anywhere, not all trips may have a fare already established, but must be calculated when booked. Survey results indicate that most demand-responsive customers are not confused about the fares they pay, possibly because they are given the fare when they book their trip.

Following are two options for establishing demand-responsive fares.

Option 1: Flexibility

Almost every demand-responsive trip is different, with various origins, destinations, travel speeds, and congestion levels. Fares could be set for each individual trip based on the estimated travel time, including wait times for appointments when the vehicle must remain on location for the customer. The fare would be estimated at the time of booking the trip. The information provided to customers would be the estimated cost per hour, for example $10.00 per hour, or $2.00 per trip, plus $5 per half hour after the first 30 minutes.

The benefit of this option is the ability to charge directly based on the estimated cost of each trip. The drawback is that, similar to today, customers won't know the fare until they call to book the trip.

Option 2: Consistency

Often, transit districts base the cost of their demand-responsive service on the fixed-route service. This provides a level of consistency that makes it easy to explain to the customer, and demand responsive fares do not need to be calculated for each trip. For example, the demand-responsive

trip could be set at twice the fixed-route fare, so that a trip within St. Helens would be $3.00, twice the current Flex-Route fare of $1.50.

The benefit of this option is that it is consistent with the fixed-route fare and therefore easy to explain to the public. The drawback is that it could significantly under-price trips given the rural nature of the county.

Fare Issues

In reviewing the existing fare structure, the following elements arose and should be considered regardless of what fare policy, strategy, and structure is adopted.

Fare Revenue Controls and Sales: As Columbia County Rider ridership grows, options for more secure handling of fares should be considered. This can be addressed through the purchase of fareboxes for existing fixed route buses and ensuring that future bus purchases include fareboxes. Another option is to encourage more riders to use pre-paid fares so that there is less cash on-board buses. Fares outlets, at local businesses, should be considered for selling tickets and passes to avoid having large sums of cash or checks on-board vehicles. This has the two-fold advantage of convenience to the customer as well as increased security in cash handling.

Fare Instruments: Given the size of the Columbia County Rider system, a simple cash, and paper ticket and monthly pass system is recommended. For any of the fare scenarios, it is recommended that all three options be made available, the pricing of which would be set on based on the option selected.

Fare Increase Policy: It is easy for transit districts to leave the fare prices alone, and often challenging to take fare increases to the public. Yet, to maintain a fiscally sound system and ensure riders pay their fare share, fares need to increase regularly, similar to other goods and services. Experience has indicated that small regular fare increases are often more acceptable to the public than large infrequent fare increases. The strategy for increases should be included in the selection of the fare system.

Rider Comments – Understanding the Fare to Pay: A survey was conducted of existing Columbia County riders to gain their perspective on service and fares. Clatskanie riders using dial-a-ride service had the most difficulty understanding how much to pay, with only 57% saying very or somewhat easy. (It is important to note that the Clatskanie services were surveyed after the fare increase took effect on November 1.) All other riders on all services had little difficulty with understanding their fares (over 75% saying very or somewhat easy). Rider comments indicate that even fare amounts ($5.00 instead of $4.80) are easier to understand.

Rider Comments – Value for Fare Paid: Overall, riders think that the service is a good value for the fare paid. Dial-a-ride and Flex-Route customers are the most positive with an average of 96% giving a good or excellent rating. Fixed route riders are slightly less positive, with 88% rating it good or excellent.

TRANSIT FUNDING RESOURCES

Existing Funding and Expenditures

Existing Funding

Columbia County Rider is heavily supported by federal funding, specifically by the Federal Transit Administration (FTA) Section 5310-Special Needs for Elderly Individuals and Individuals with Disabilities and Section 5311-Small Cities and Rural Areas programs. Funding from these two FTA programs constituted approximately half of all unrestricted/operational revenues in FY 2007-08 and also provided much of the capital grant funding for vehicle purchases, replacement, and preventive maintenance.

For the 2009-2011 biennium, the ODOT Public Transit Division (PTD) Older Adults and People with Disabilities Discretionary Grant program will allocate FTA 5310 and the state of Oregon Special Transportation Fund (STF) discretionary funds by a population formula, based on the total county population and the proportion of elderly and disabled individuals in the county. A majority of the Section 5311 funds are provided on a reimbursable arrangement, at roughly a 50 percent match rate for eligible operating expenses (Columbia County Rider contributes 42.92 percent). Other Section 5311 funds are also available for vehicle maintenance and other capital expenditures, but usually require a lower matching rate.

Discretionary grants are generally awarded through a competitive process and are often subject to stricter eligibility and match requirements. Most discretionary grants fund new services and capital investments, which support the goals of the particular grant program (e.g. provide intercity bus connections in rural areas, job access for low income individuals, etc.). The Intercity Passenger (FTA Section 5311(f)), New Freedom (FTA Section 5317), and Job Access and Reverse Commute (JARC) (Section 5316) programs are all examples of discretionary grant programs. The level of funding available from these programs and the eligibility of projects to receive continued support vary by program. In general, however, these grant programs are not considered stable sources of annual funding, nor should funding from these programs be assumed for future years. Rather, these programs can help fund the purchase of vehicles, capital investments, or fund temporary operations of a new services or special programs.

In the past three years, Columbia County Rider has been awarded discretionary grants from the Intercity Passenger, New Freedom, Mobility and Management, Transportation and Growth Management (TGM), and Connect II Oregon grant programs for special projects and planning of new services. The majority of this funding is restricted and cannot be used to support operations, maintenance or administration of current system services. Another state grant program, which distributes funds both by formula and on a discretionary basis is the Oregon Department of Energy Business Energy Tax Credit (BETC) program. BETC provides funding to encourage energy conservation, in this particular context to reduce transportation-related energy use. Columbia County Rider has received a small amount of unrestricted funding from BETC in the past three years and has also received funding for vehicle purchases. *A summary of transit grant programs is included in Attachment "C".*

Table 7 shows the primary sources of funding for Columbia County Rider for FY 2005-06 through FY 2007-08. The state Special Transportation Formula (STF) Fund (different from the state STF discretionary funds) is allocated based on county population less the county tribal population, and is the primary source of state-level funding. After the major federal and state programs, another consistent revenue source has been from the service contract for the Northwest Ride Center. At the local level, funding from the County's general fund, and community contributions from cities in Columbia County provide more local matching funds. In addition to funding of $30,000 per annum from the Columbia County General Fund, Columbia County also provides funding for the half-time Transit Director position and associated county administrative costs. A negligible amount of revenue has been received from interest on investments and sales of assets in the past three fiscal years.

Table 7
Columbia County Transit Operating Revenues by Funding Source

Funding Source	FY 2005-06		FY 2006-07		FY 2007-08	
	Funds	Share of Revenues	Funds	Share of Revenues	Funds	Share of Revenues
Section 5310	29,363	6.7%	391,461	43.9%	159,692	16.5%
Section 5311 ODOT Ops Grant	53,643	12.3%	107,556	12.1%	238,884	24.7%
Discretionary Operations Grants: STG in FY06 and Intercity in FY08	9,448	2.2%	0	0.0%	12,941	1.3%
BETC	10,075	2.3%	5,846	0.7%	3,159	0.3%
State Transportation Formula (STF) Fund	89,329	20.5%	89,233	10.0%	81,056	8.4%
Community Contributions	15,600	3.6%	50,552	5.7%	54,800	5.7%
NW Rides-Medicaid Service Contract	34,788	8.0%	91,549	10.3%	126,926	13.1%
County General Fund	30,000	6.9%	30,000	3.4%	30,000	3.1%
County General Fund-Admin	108,545	24.9%	45,410	5.1%	109,371	11.3%
Farebox	55,624	12.7%	79,586	8.9%	138,512	14.3%
Other: Sale of Assets, Interest on Investments, etc.	0	0.0%	0	0.0%	11,000	1.1%
Total	436,415	100.0%	891,193	100.0%	966,341	100.0%

Contributions from the Columbia County General Fund, Columbia County General Fund for administration, and community funding contributed by cities in Columbia County are also important sources of local funds used as match for federal programs and discretionary grants. Table 8 lists the community contributions made by cities and Portland Community College in FY 2007-08.

In each of the past three fiscal years Columbia County has provided about $30,000 from the general fund for Columbia County transit operations.

Table 8
County and Community Contributions FY 2007-08 by Community Fund

Community Fund	FY 2008
Scappoose	$7,500
Clatskanie	$4,500
Columbia City	$1,800
Portland Community College	$24,000
St. Helens	$10,000
Vernonia	$3,500
Rainier	$3,500
Total Community Contributions	**$54,800**

In FY 2005-06 through FY 2007-08, fares provided between approximately 9 and 14 percent of Columbia County Rider unrestricted/operating revenues. The average yield per one-way passenger trip ranged from $1.54 in FY 2005-06 to $2.19 in FY 2007-08. Service improvements, which spurred and supported the increase in ridership as documented in Technical Memorandum #2, led to a doubling of farebox revenues between FY 2005-06 and FY 2007-08. An across the board $0.80 fare increase went into effect November 1, 2008. The expected change in farebox revenue for FY 2008-09 resulting from the November 2008 fare increase is discussed later in this memorandum.

Section 5311 and 5310 funds distributed through the ODOT PTD Capital Program have been the major sources of capital funding in the past three fiscal years. Grants for capital purchases usually require a much lower local match rate than operations – commonly twenty percent or lower. In FY 2007-08 three vehicles were purchased with state money and 5310 funds and two buses were purchased with cash ($1 cash was paid for the RTB buses from Salem-Keizer).

Existing Expenses

Operating and administrative expenses for FY 2005-06 through FY 2007-08 are shown in Table 9. Fiscal year 2007-08 expenses reflect increased system service along three fixed routes, particularly added frequencies along the St. Helens—Portland route.

The service contract with Metro West is the largest single operating expense item. Fixed route service hours have increased to approximately 2,040 revenue hours per quarter under the current schedules for the three fixed routes, while other-than-fixed route service hours have varied between 2,500 and 4,000 revenue hours per quarter over the past three years. Metro West has one more year on at the current contract rate of $23.80 per revenue hour. It is likely that when the new contract with Metro West is negotiated at the end of FY 2010-11 the new hourly service rate will be higher. Given that service hours have been increasing, a higher contract rate with Metro West could have a large impact on operating expenses.

Salary and fringe benefits for the Transit Coordinator – the one full-time employee paid directly by Columbia County Rider – is the single largest administrative expense ($36.28 per hour). A half-time Transit Director position, along with the associated administrative expenses for the program and Transit Director are funded by Columba County.

Higher fuel prices in the last two years have increased fuel costs, however the increase in expenditures for fuel also reflects higher service levels in FY 2008-09.

Table 9
Columbia County Rider Expenses FY 2005-06, FY 2006-07, FY2007-08

Expense Category	FY 2005-06	FY 2006-07	FY 2007-08
Administrative Expenses			
Salary and Fringe Benefits/Insurance	65,692	85,513	96,955
Lease of Metro West Office Space	16,504	16,504	19,138
Overhead/Utilities/Janitorial/Maintenance	9,624	3,208	0
Marketing/Public Involvement	1,300	58	6,339
Contracted Services (e.g. legal, payroll, audit, etc.)	0	0	12,137
DMV Plates	229	0	0
Audit	0	0	1,000
Other Administrative Expenses	0	325	15,400
Computer Support/Audit	2,077	2,575	2,850
Telephone	13,055	0	8,694
Conferences and Training	0	0	537
Total Administrative Expenses	**108,481**	**108,183**	**163,049**
Operating Expenses			
Operating Employee Training / Certification	0	286	0
Preventive Vehicle Maintenance	6,073	12,390	31,301
Tires[1]	3,810	16,204	0
Fuel and Oil	64,146	91,168	167,001
Transit Service Contracts	207,735	298,596	534,641
Vehicle Insurance	3,775	5,925	2,455
Other Operating Expenses (Repairs)	0	10,415	28,069
Intercity service	0	0	49,250
Phone Charges	0	6,776	9,429
Marketing (Public Meeting Notices)	0	3,702	7,819
Office Supplies	0	188	2,495
Total Operating Expenses	**285,539**	**445,650**	**832,460**
Total Administration and Operating Expenses	**394,020**	**553,833**	**995,509**

[1] Tire category was not reported separately on the FY 2007-08 expense form.

Future Funding and Expenses

The following section presents the future funding and funding needs for Columbia County Rider. First, future funding and expenses are discussed in the context of continued Columbia County Rider operations and agency organization, without the formation of a transportation district. Secondly, funding and financing methods and expenses are discussed for a scenario in which Columbia County Rider becomes a transportation district under Oregon Revised Statute 267 Section 510.

Future Funding Without a Transportation District

Future funding sources without the formation of a transportation district are expected to continue to be a mix of the existing federal and state grant programs, local funding sources, the service contract with Northwest Ride Center, and fare revenues. Revenues from grant programs such as the 5310, 5311, and STF are not likely to increase to levels able to support Columbia County Rider services beyond current levels. In fact, maintaining current service levels with continued heavy reliance on these programs will become increasingly difficult absent new funding sources and/or growth in discretionary grants and local revenues. Funding for the Older Adults and People with Disabilities program (Section 5310 and the STF discretionary fund) has been reduced by $4.5 million statewide for the 2009-2011 biennium. Given the uncertainty in future funding levels for programs like 5310 and the STF, increases in other funding sources will be needed to keep pace with inflation and cover increases in expenses, as well as replacing any decline in federal and state grant programs.

In addition to the leveling of total funding available from these programs in real terms, since a large portion of the funds are allocated using a population formula and Columbia County population growth is forecasted to be below the state average, Columbia County Rider share of these funds is not expected to increase.[1] Support from Columbia County general funds is also expected to stabilize or decline in future years due to uncertainty in federal payments for lost timber revenues.

The November 2008 fare increase of $0.80 for most fixed route and demand response trips[2] will increase the average yield (fare revenue) per passenger trip. Absent any other changes, an increase in fares would generally result in lower ridership, however since ridership is relatively low in Columbia County, the fare elasticity is likely near zero since current riders have limited transportation alternatives. In fiscal year 2008 there were approximately 64,000 one-way passenger trips. Assuming ridership levels remain constant, the $0.80 per trip rate increase would generate roughly an additional $50,000 in fare revenues per annum, with total fare revenues of approximately $190,000 per annum.[3] This is a conservative estimate of the increase in fare revenue,

1 Office of Economic Analysis, Department of Administrative Services, State of Oregon. Forecasts of Oregon's County Populations and Components of Change, 2000 – 2040. www.oea.das.state.or.us/DAS/OEA/docs/demographic/pop_components.xls

2 Columbia County Rider, New Rates, http://www.columbiacountyrider.com/resources/Approved+Fare+schedule+effective+11.1.08.pdf

3 The estimate of an additional $50,000 in fare revenues from the November 2008 rate changes was calculated by multiplying 64,000 trips by the additional $0.80 per trip, for an increase in fare revenues of $51, 200.

since the ridership is set at a level close to FY 2008 total. Technical Memorandum #2 discusses ridership levels, and found that ridership is up significantly in the current fiscal year on the St. Helens—Portland route and also up on the other fixed routes and the Flex-Routes.

Though community contributions are a relatively small portion of revenues, funding from cities and Portland Community College (PCC) has also increased over the past three fiscal years. In particular, PCC contributions for FY 2008-09 are anticipated to increase by $13,000--from $24,000 in FY 2007-08 to $37,000. However, the fixed route service to PCC currently operates 12 hours per weekday, costing $71,500 per year in payments to Metro West to operate, not including allocated administrative costs and maintenance and repairs.[4]

Revenues for the next five years are projected by creating a baseline estimate of the expected funding level from each funding source. The baseline revenue levels are estimated as the expected FY 2008-09 funding levels using revenues in previous years or the actual published grant amounts. If previous year revenues did not provide enough information to make a reasonable assumption for the baseline the FY 2008-09 adopted Columbia County budget amounts are used. A growth assumption for each funding source is made based on the expected level of funding in future years or growth in past years. The growth assumption is then applied to the baseline revenue amounts to project revenues in each fiscal year. The baseline revenues used to project future year funding are shown in Table 10 and Table 11 shows future funding and the growth assumption.

4 Metro West contract rate of $23.80 per hour multiplied by 12 hours per day, 251 weekdays per year (weekdays excluding holidays) is a total cost of $71,685.

Table 10
Baseline Revenues by Funding Source for Revenue Projection

Funding Source	FY 2008-09	Baseline	Baseline-FY2008-09 Difference	Assumption / Data Source
5310 and STF Discretionary	159,692	89,000	-70,692	ODOT PTD 2009-2011 Discretionary Grant target for Columbia County per annum.
Section 5311 Ops Grant	238,884	255,000	16,116	FY09 Section 5311 allocation for Columbia County ($257,758).
Intercity Passenger-Ops	12,941	19,000	6,059	FY 2008-09 adopted budget.
BETSC	3,159	5,000	1,841	FY 2008-09 Columbia County adopted budget
State Transportation Formula (STF) Fund	81,056	80,000	-1,056	ODOT PTD FY2009-10 STF fund allocation for Columbia County ($80,893).
Community Contributions	60,552	66,500	5,948	FY 2009 anticipated community contributions, including the increase in PCC contributions to $37,000.
NW Rides- Service Contract	126,926	130,000	3,074	3% over FY2007-08 revenues.
County General Fund	30,000	30,000	0	Constant-Equal to FY2007-08.
County General Fund-Admin	109,371	115,000	5,629	A 4.5% increase over FY2007-08.
Farebox	138,512	189,000	50,488	Fare increase of $0.80 applied to FY2007-08 ridership.
Other: Sale of Assets, Interest, etc.	11,000	3,500	-7,500	FY2008-09 adopted budget amount.
Preventive Maintenance	40,245	18,000	-22,245	FY2008-09 adopted budget.
Total	1,012,338	1,000,000	-12,338	

Table 11
Future Funding Levels without a Transportation District (Existing Funding Sources)

Funding Source	Baseline	FY 2010 (est.)	FY 2011 (est.)	FY 2012 (est.)	FY 2013 (est.)	FY 2014 (est.)	Assumed Growth Rate
5310	89,000	89,000	89,000	89,000	89,000	89,000	Constant
5311 Ops Grant	255,000	262,700	270,600	278,700	287,100	295,700	Inflation rate of 3%
Intercity Passenger/ other grants	19,000	19,600	20,200	20,800	21,400	22,000	Inflation rate; assume Columbia County can secure future discretionary grants
BETSC	5,000	5,200	5,400	5,600	5,800	6,000	Inflation rate of 3%
State Transportation Formula (STF) Fund	80,000	80,000	80,000	80,000	80,000	80,000	Constant
Community Contributions	66,500	68,500	70,600	72,700	74,900	77,100	Inflation rate of 3%
NW Ride Center	130,000	133,900	137,900	142,000	146,300	150,700	Inflation rate of 3%
County General Fund	30,000	30,000	30,000	30,000	30,000	30,000	Constant
County General Fund-Admin	115,000	118,500	122,100	125,800	129,600	133,500	Inflation rate of 3%
Farebox	189,000	194,700	200,500	206,500	212,700	219,100	Inflation rate of 3%
Other: Sale of Assets, Interest, etc.	3,500	3,500	3,500	3,500	3,500	3,500	Constant
Preventive Maintenance	18,000	18,500	19,100	19,700	20,300	20,900	Inflation rate of 3%
Total	1,000,000	1,024,000	1,049,000	1,074,000	1,101,000	1,128,000	

Capital funding will continue to be obtained through the ODOT PTD Capital program, funded by 5310 and 5311 funds. Additional capital funds may be available from a proposed state allocation from FTA 5309, however these funds would not be available until FY 2009-2010. Discretionary grant programs such as JARC, New Freedom, Intercity Passenger and BETC also remain potential sources for capital funding.

In addition to being awarded a discretionary grant for an eligible project through a competitive process, the agency must demonstrate the availability of matching funds. Columbia County relies on STF, county general funds, community contributions, and the service contract with Northwest Ride Center for local matching funds. The inability to reserve the sum of the matching requirements among the various grant programs may be a limiting factor in qualifying for or receiving discretionary funds in future years. In particular, Columbia County has been awarded grants, like the Connect Oregon II grant, but needs to be able to set aside local funds for the required match. Thus, additional local funding is needed not only to substitute for federal and state funding, but also to be able to secure federal and state grants by demonstrating the ability to provide local matching funds available.

Future Expenses Without a Transportation District

Inflation and the expected increase in the cost per hour for the Metro West contract may cause expenses to grow at a faster rate than revenues in future years. There is also expected to be pressure on expenditures from recent service improvements and the needs for facilities and vehicles to accommodate increasing numbers of commuters, elderly riders, and new residents. Future funding levels will not only need to cover the administrative and operating costs for current service levels, but also must meet the additional funding requirements to operate, maintain and replace an aging fleet of vehicles.

Any future service improvements or expansion will require additional funds to cover the increase in administrative and operating costs, in addition to the grants needed for initial planning and capital funding. Even if fare revenues from the expanded service were to continue to cover 15 to 20 percent of operating expenses, the absence of additional unrestricted funding sources (like 5311 and STF funds) would constrain service levels.

Since federal grant programs bias toward capital expenditures, future capital replacement projects and special service improvements may be eligible for discretionary grant funding. To fund capital expenses for service improvements, not only must Columbia County be awarded the grants, but local match must also be available.

The method for projecting expenditures is similar to that used for revenues. Baseline FY09 expected expenditures are assumed based on expenditures in previous years and then inflation or other growth assumption is applied to reflect future anticipated expenditure levels.

The baseline expenditures in Table 12 are set equal to FY 2007-08 levels plus 3% per year for inflation with the exception of the Metro West transit service contract, vehicle maintenance costs and intercity operations. The Metro West transit service contract baseline estimate is set equal to $600,000, which is the annual cost based on an estimate of $150,000 per quarter in the two quarters

of FY2007-08 with revenue hours reflecting the current service schedules. Vehicle maintenance baseline is the average expenditures for the sum of the vehicle maintenance, tires, and repairs across FY 2007-08. Intercity service is based on the FY 2008-09 Columbia County Rider adopted budget amount. An inflation rate of 3% is applied to project expenditures for FY 2010-2014.

Comparing future funding levels in Table 11 to the expected future expenses in Table 12, an operating deficit seems likely given the reduction in 5310 funding absent any new revenue streams. The operating deficit would be exacerbated by an increase in the contract rate with Metro West for FY 2009-10 through FY 2013-14.

Table 12
Future Expenditures without a Transportation District (at Existing Service Levels)

Expense Category	Baseline	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Administrative Expenses						
Salary and Fringe Benefits/Insurance	99,900	102,900	106,000	109,200	112,500	115,900
Lease of Metro West Office Space	20,000	20,600	21,200	21,800	22,500	23,200
Marketing/Public Involvement	6,000	6,200	6,400	6,600	6,800	7,000
Contracted Services (e.g. legal, payroll, audit, etc.)	12,500	12,900	13,300	13,700	14,100	14,500
Phone	9,000	9,300	9,600	9,900	10,200	10,500
Other Administrative Expenses	20,000	20,600	21,200	21,800	22,500	23,200
Total Administrative Expenses	**167,400**	**172,500**	**177,700**	**183,000**	**188,600**	**194,300**
Operating Expenses						
Vehicle Maintenance	50,000	51,500	53,000	54,600	56,200	57,900
Fuel & Oil	172,000	177,200	182,500	188,000	193,600	199,400
Transit Service Contracts	600,000	618,000	636,500	655,600	675,300	695,600
Intercity	40,000	41,200	42,400	43,700	45,000	46,400
Total Operating Expenses	**862,000**	**887,900**	**914,400**	**941,900**	**970,100**	**999,300**
Total Administration and Operating Expenses	**1,029,400**	**1,060,400**	**1,092,100**	**1,124,900**	**1,158,700**	**1,193,600**

Funding With a Transportation District

Oregon Revised Statute 267 Section 510 outlines the requirements and process for the formation of a transportation district, and the financing methods available to a transportation district. Formation of a transportation district would provide additional local financing methods to support Columbia County public transportation services, such that with voter approval, the transportation district could have its own dedicated, stable revenue stream to fund services.

Columbia County Rider is currently acting to form a transportation district. ORS 267 describes both Mass Transit Districts and Transportation Districts. The primary difference between the two types of districts is how the district is governed and the process through which members are elected or appointed to the board. In Oregon, Tri-Met, Salem Area Mass Transit District (Cherriots), and Lane Transit District (LTD) are mass transit districts and approximately ten smaller public transportation agencies like Basin Transit Service, Sunset Empire, and Rouge Valley are transportation districts.

The first step for forming the transportation district is to produce a draft order for the formation of the district which specifies the intent to form a district, the name and boundaries of the proposed district and the date, time, and place of a public hearing on the proposal, and to produce a draft resolution which must be presented to the cities of Columbia County. Prior to the public hearing, a certified copy of the resolution with approval from the governing body of each of the cities within the proposed boundaries of the new transportation district will need to be collected. With the approved resolutions, a public hearing must be held, governed by ORS 198.800. The notice of the hearing must be posted in at least three public places and published by two insertions in a newspaper.

After the hearing the county board shall approve, modify, or reject the district formation by order of the board. The order will set the final hearing on the formation, not less than 20 days nor more than 50 days after the date of the order. The order shall call for an election if a permanent rate is proposed. At that point the County would need to prepare a ballot title in time to get it on the May ballot. The deadline to get a Measure on the May ballot is March 19. On the May ballot, voters would be deciding whether to allow Columbia County Rider to form a transportation district and also simultaneously voting on the requested operating tax rate and financing method.

Transportation District Funding Methods

ORS 267.615 lists the financing methods available to a transportation district as the following instruments:

- Service charges and user fees
- Funding or loans from the federal government
- Ad valorem (sales) tax
- Bonds
- Business license fees
- Income tax

- Payroll tax
- Property tax

Service charges and user fees in the form of fares are already collected by Columbia County Rider *(farebox revenue is addressed in other sections of this technical memo.)* Funds from the federal government are also currently distributed to Columbia County and eligibility or competiveness for these funds will not be affected by the formation of a transportation district. Loans from the federal or state government and bonds are not typical sources to cover annual operation.

Transit districts and transportation districts in Oregon are generally funded by state and federal grants, fares, and a property tax or payroll tax. Payroll taxes are most common for mass transit districts (Tri-Met and Lane Transit District) and for smaller transit agencies formerly serviced by Tri-Met. Transportation districts in Oregon seem to exclusively use property tax, though Rogue Valley Transportation District has considered a payroll tax. Sales tax, income tax, and business license fees are financing methods used by other types of tax districts at various levels of city, county, or state government in Oregon, however there is no precedent for use of these financing methods by a transportation district. The following sections estimate the potential revenues from three of the tax financing methods: business license fees, payroll tax, and a property tax.

Business License Fees

A business license fee is an annual tax imposed on businesses to operate within the county. Usually the business license fee is a set dollar amount per business, but alternative fee structures may include a per-employee fee, or a net income-based fee.

Columbia County has roughly 1,050 private businesses, based on the number of private establishments reporting employment and payroll in 2007 (OLMIS). A business license fee of $100 per business would produce an estimated $105,000 annually in gross revenue and a business license fee of $300 per business would produce an estimated $315,000 in gross revenue. Collection costs and delinquency of five percent and ten percent respectively would reduce the range of net revenue received by the transportation district to roughly $90,000 and $267,000. Assessing a per-employee fee between $3 and $6 per-employee would produce an additional $26,000 to $52,000 in net revenues.

Several cities in Columbia County currently have business license fees. These cities (St. Helens, Scappoose, Columbia City and Vernonia) all have a per-business fee ranging from $55 to $80 and a per-employee fee ranging from $3 to $6 per employee. (Heavy industrial zoning businesses in Columbia City are assessed a $300 per business fee.)

Payroll Tax

A payroll tax must be approved by a vote of registered voters within the district boundaries and is limited to a rate of seven-tenths of one percent (0.70%) of gross payroll paid by non-exempt employers in the district.

Thirteen percent of the sample in the Community Preference Survey owned businesses within Columbia County. Asked about an employer tax, 55 percent of business owners opposed the tax

and 45 percent gave the idea a favorable rating, although Acti-Dyne, the survey research firm who conducted the Community Preference Survey noted that: "confusion may have existed as to whether the tax would be assessed on the employer or the employee."

The Oregon Department of Revenue collects transit payroll tax for TriMet and Lane Transit District. In 2008, the TriMet payroll tax rate is 0.6618% and the LTD rate is 0.64%. Four other city transportation agencies also have a payroll tax: Canby (0.6%), Molalla (0.4%), Sandy (0.6%), and Wilsonville (0.3%). These transit providers are in cities that left TriMet service and each administer and collect the payroll tax in their city.

ORS 267.380 and 267.385 among other provisions concerning state agencies define "employer" and "wages" that are subject to payroll tax, and specify the administration, collection and enforcement of the payroll tax. Exempt organizations include: federal government, federal credit unions, public school districts, public education districts, public special service and utility districts, port authorities, fire districts, city, county, state, and other local government units. Also exempt are casual labor, domestic service in a private home, insurance adjusters, agents and agencies business income from insurance-related activity exempt, tips paid by the customer to the employee, and wages paid to employees whose labor is solely connected to planting, cultivating, or harvesting seasonal agricultural crops.

Payroll tax revenues are sensitive to the level of employment and average wages in the county, the proportion of organizations and payroll exempt from the payroll tax, and employment changes by major employers. The loss of 300 jobs at the St. Helens pulp and paper mill expected in early 2009 will have a noticeable impact on county private covered employment and wages (total payroll). Three hundred employees represent roughly 15 percent of the employment in the manufacturing industry in Columbia County. Making a simplifying assumption that 15 percent reduction in employment implies a 15 percent decline in payroll, the pulp and paper mill job loss would reduce payroll by approximately $15 million.

The estimated revenues from a payroll tax in Table 13 are based on the Columbia County 2007 total private covered payroll.[5] Private covered payroll excludes government payroll (the first set of exempt organizations listed above) and covered wages exclude wages of casual labors, tips, and many others also listed as exempt.[6] Total private covered payroll serves as a good estimate of the payroll that would be subject to a payroll tax, however further clarification of exemptions to the payroll tax for transportation district and firm-level data are required to determine payroll from all of the exempt organizations. These other exempt organizations are likely 501(c)(3)s and other non-profits, which probably contribute a small proportion of payroll.

5 Oregon Labor Market Information Service (OLMIS). Covered Employment and Payroll. http://www.qualityinfo.org/olmisj/CEP.

6 Oregon Labor Market Information Service (OLMIS). Covered Employment and Wages, Nature and Limitations of the Data. Accessed December 10, 2008. http://www.qualityinfo.org/olmisj/DataSource?itemid=00001527

To estimate the potential revenues from a payroll tax, a range of possible payroll tax rates from three-tenths of once percent (0.3%) to the maximum limit of seven-tenths of one-percent (0.7%) are applied to the private covered payroll for Columbia County in 2007. A ten-percent delinquency rate and a five percent administration and collection cost are subtracted from the tax implied to determine the revenue to the transportation district.[7]

Table 13
Estimated Revenues from Payroll Tax

Payroll Tax Revenue Estimate	Payroll Tax Rate (per dollar of payroll)				
	0.3% Tax Rate	**0.4% Tax Rate**	**0.5% Tax Rate**	**0.6% Tax Rate**	**0.7% Tax Rate**
2007 Total Private Coverage Payroll	$275,375,285	$275,375,285	$275,375,285	$275,375,285	$275,375,285
Estimated Payroll Taxes Levied	$826,125.86	$1,101,501	$1,376,876	$1,652,252	$1,927,627
Less 10% delinquent collections	($82,613)	($110,150)	($137,688)	($165,225)	($192,763)
Estimated Taxes Available	$743,513	$991,351	$1,239,189	$1,487,027	$1,734,864
Administration & Collection Costs (5%)	($37,176)	($49,568)	($61,959)	($74,351)	($86,743)
Estimated Taxes to Transportation District	**$710,000**	**$940,000**	**$1,180,000**	**$1,410,000**	**$1,650,000**

A payroll decline of $15 million from the job losses at the St. Helens pulp and paper mill, would reduce payroll tax revenues from $710,000 to $670,000 at a rate of three-tenths of one percent and from $1.65 million to $1.56 million at a payroll tax rate of seven-tenths of one percent of wages. The impact of the pulp and paper mill on estimated revenues illustrates the impact a single large employer can have on estimated revenues. It should be noted that theses estimates of potential payroll tax revenues are based on 2007 payroll data and are not a forecast of future year payroll.

Property Tax

The district can establish a permanent tax rate for operating taxes in the same proposition submitted to the voters for the formation of the district. The permanent operating tax rate is inside the limit for government tax districts for calculating taxes imposed under Measure 5 rate limits. Due to compression of tax rates under Measure 5, the tax imposed is less than the extended tax in some taxing districts of Columbia County. That is, tax revenues are less than the full value of the tax

7 These assumptions are based on the payroll tax revenue analysis conducted by Rogue Valley Transportation District for the Revenue Scenarios in the Ten-Year Long Range Plan. Accessed on December 10, 2008. http://www.rvtd.org/resources.php

rate applied to the net assessed property values of the county because the sum of government tax rates exceeds the Measure 5 limit.

The Columbia County Rider Community Preference Survey included two questions to assess the level of voter support for a potential ballot measure for a transportation district. The survey first asked respondents if they would favor a transportation district with a property tax rate of $0.30 per $1,000 assessed value, and then asked about a tax rate of half that amount ($0.15 per $1,000 assessed value). Results of the survey show weak favorable support for the 30 cents per $1,000 rate and slightly higher support at the 15 cents per $1,000 rate. The average score for the 30 cents per $1,000 was 5.3 and the average score for half that tax rate was 6.1 demonstrating that the lower rate had a higher favorability ranking among voters, a ten percent change in the level of favorability when asked about the lower tax rate.

The survey found that support for the hypothetical measure was based on recognition of need for service in future. Comparing the results for the two rates, there is less of a change on the respondents completely opposed to such a measure. The opposed were less likely to change position with the amount of money the measure is asking, while the ranking of favorable responses. The Community Preference Survey summary notes, "when asked why they would oppose or support the measure, three main issues that arise are the county's need for public transportation, a negative response to additional taxes, and requests for more information."

To estimate the additional revenues from the two proposed tax rates, the transportation district is assumed to cover all of Columbia County. Also assumed is that no other tax districts in the county increase their tax rates, which would further decrease the transportation district's tax imposed due to tax rate compression under Measure 5. Using the FY 2006 net assessed value for Columbia County and applying a 3 percent annual increase to the net assessed value under Measure 50 limits, an operating tax rate of $0.30 per $1,000 would generate an estimated $1,095,000 in revenue in FY 2009-10 and the $0.15 per $1,000 tax rate would generate $556,000. If Columbia County were to form a transportation district funded with a permanent operating property tax, it is possible that community contributions for transit could decline, which could reduce the net additional revenues from becoming a transportation district. Some of the additional revenues from the property tax might then go toward replacing the decline in other sources.

A 3% growth rate is applied to the assessed value of properties in Columbia County in fiscal year 2006-07 into future years for the two tax rate scenarios. **Error! Reference source not found.** shows the rounded estimated revenues from a property tax for the two property tax rates.

Table 14
Projected Property Tax Revenues for Transportation District

Fiscal Year	Net Assessed Value (thousands)	$0.15 per $1,000		$0.30 per $1,000	
		Tax Extended	Tax Imposed	Tax Extended	Tax Imposed
FY 2007	3,500,060	525,000	**509,000**	1,050,000	**1,002,000**
FY 2008	3,605,062	541,000	**525,000**	1,082,000	**1,032,000**
FY 2009	3,713,214	557,000	**541,000**	1,114,000	**1,063,000**
FY 2010	3,824,610	574,000	**557,000**	1,147,000	**1,095,000**
FY 2011	3,939,348	591,000	**573,000**	1,182,000	**1,128,000**
FY 2012	4,057,529	609,000	**591,000**	1,217,000	**1,162,000**
FY 2013	4,179,255	627,000	**608,000**	1,254,000	**1,197,000**
FY 2014	4,304,632	646,000	**627,000**	1,291,000	**1,233,000**

"In Lieu of Tax" Funds

Transportation districts are eligible for state of Oregon "in lieu of tax" funds. "In lieu of tax" funding is based on the number of state employees working in the county. In 2007, Columbia County had 230 state employees according to the Oregon Labor Market Information System (OLMIS). Given that the share of state employees in Columbia County is quite small, "in lieu of tax" funding would be a relatively small share of future revenues. Once authorized to impose a property tax the Oregon Department of Revenue should distribute the "in lieu of tax" funds to the transportation district.

Other Local Sources / Directly Generated Funds

Advertising, donations, private funds, and grants from foundations are likely to generate negligible revenues and are not a stable source of future funding for operations. Private funds, grants from foundations, or other special grants may provide some funding for special projects, however the level of funding is uncertain, and may be increasingly difficult to obtain as many public and non-profit entities vie for these funds in future years. Parking fees are a potential future funding source, particularly if future service improvements along US-30 include additional park and ride facilities.

Table 15
Future Funding with a Transportation District

Funding Source	FY 2010 (est.)	FY 2011 (est.)	FY 2012 (est.)	FY 2013 (est.)	FY 2014 (est.)
Existing Federal and State Grants	475,000	484,300	493,800	503,600	513,600
NW Ride Center	133,900	137,900	142,000	146,300	150,700
County and Community Contributions, Other	220,500	226,200	232,000	238,000	244,100
Fares	194,700	200,500	206,500	212,700	219,100
Total Existing	1,024,000	1,049,000	1,074,000	1,101,000	1,128,000
Property Tax Revenues- $0.15 per $1,000	557,000	573,000	591,000	608,000	627,000
Property Tax Revenues- $0.30 per $1,000	1,095,000	1,128,000	1,162,000	1,197,000	1,233,000
Total with $0.15 per $1,000 property tax rate	1,581,000	1,622,000	1,665,000	1,709,000	1,755,000
Total with $0.30 per $1,000 property tax rate	2,119,000	2,177,000	2,236,000	2,298,000	2,361,000

Expenses With a Transportation District and Future Service

Total operating and administrative expenses as a transportation district should be similar to current expenses for Columbia County Rider at the existing service levels. Additional revenues from a property tax could support service improvements, which in turn would increase ridership levels as the system grows, further increasing fare revenues. While some of the additional revenue from the operating tax rate may need to replace loss of other revenue sources, a stable local revenue source will provide much needed additional local funding to be used to match federal and state grants.

A transportation district will face all of the same potential increases in expenditures, most noteworthy again being the increase in the contract service rate with Metro West at the end of FY 2009. In addition to the major operating expense category increases, as a transportation district there may be some additional expenses, or expenses that were once covered by the county that will be transferred to the transportation district. The part-time Transit Director position is currently funded through the county by lottery dollars. As a transportation district it would be desirable and potentially necessary to fund a full time Transit Director position. A full-time Transit Director would have more resources and specialization to apply for discretionary grants, negotiate the service contract with Metro West, and report to the transportation governing board.

In presenting the new transportation district to voters, Columbia County transit must be realistic about the level of service it will be able to provide at the requested tax rate, and not request an unreasonably low tax rate. The expected service levels proposed communicated to voters must be commensurate with the requested level of funding, otherwise the expanded service could become unsustainable ten to twenty years out.

Funding Recommendations

Similar to other small rural transit programs, federal grants provide the majority of revenues for transit services in Columbia County. Future funding will continue to be a mix of federal and state grant programs, and local government sources, however these sources are likely to stabilize in real terms, which will limit future service levels.

Typically, as a public transportation agency grows, federal and state funds become a smaller portion of total revenues. It is likely that only once a transit agency has a dedicated local revenue source it is able to expand services, thus generating higher fare revenues in addition to the local funding stream, and diminishing the relative importance of federal and state grant programs. Formation of a transportation district would provide Columbia County Transit with its own stable revenue stream. With a tax rate of $0.15 per $1,000 net assessed property value, the transportation district would receive an additional estimated $500,000 per year, and a $0.30 per $1,000 tax rate would provide roughly $1,000,000 per year.

Capital needs, including facilities, phone and communications systems, computer modernization, maintenance shops, parking, and vehicles will continue to be funded largely through FTA Section 5311, 5310 and other discretionary grant programs. A major benefit of the permanent operating tax rate will be the ability to ensure that that local funding will be available for the required local match for these discretionary grants. Also, as a transportation district, Columbia County Rider would also have the authority to seek voter approval for a bond measure to fund large transit projects.

A new federal administration, a federal stimulus package, and state-level transportation funding reform may provide additional funding for transit, however the long-run funding outlook for transit is uncertain. A federal stimulus package could provide some immediate funding, however other federal funding will likely not be available until 2010 or beyond.

Given the uncertain funding environment and increased stress placed on the system from additional ridership and demand for trips by elderly and disabled, rising costs, and the potential large increase in the contract rate for Metro West in FY 2010, it is possible that the additional revenue from a property tax would replace the decline in funding from current sources and be needed to cover the escalation in expenditures.

In addition to the procedural steps for forming a transportation district required by Oregon State Statutes, Columbia County Rider may want to consult with other transit agencies in Oregon on their experience in forming a transportation district and success in voter approval of permanent operating tax rates since the majority of the transportation districts in Oregon have a permanent property tax operating rate. The Community Preference Survey found that voter education on the transit services provided by Columbia County Rider should help to increase voter support for a transportation district measure.

Section 7
Service and Fare Structure Recommendations

Service and Fare Structure Recommendations

This section presents the recommended changes to Columbia County's transit service to better meet the needs of County residents and employers. These changes encompass bus routes, service frequencies, facility locations, fares, and coordination with neighboring service providers (Sunset Empire Transit District, CUBS, and TriMet). Estimates of future funding levels, along with five- and ten-year ridership projections, are presented and used to prioritize the service recommendations. Also included within this section is a discussion of implementation and promotion of vanpools and carpools.

POTENTIAL SERVICE IMPROVEMENTS

The potential service improvements listed in this section are based on direct public input, stakeholder surveys, information provided by County staff, and the professional opinion of the project team. Public input was obtained through a survey of registered voters in Columbia County, on-board surveys of transit riders, and open houses held in St. Helens, Clatskanie, and Vernonia. Each recommendation is accompanied by an estimate of the cost impact of the proposed change. All costs are based on a value of $55.33 for operating expense per revenue hour, which was derived from the County's results for the last three quarters of fiscal year 2007-08. This estimate includes the above-average fuel prices experienced during the first half of 2008. Even so, fuel prices accounted for under 10% of total operating costs, so a shift in fuel prices is not likely to substantially alter this hourly rate. *Appendix "K" contains the information used to estimate the operating expenses per revenue hour*. It is assumed that the recommended improvements will result in a negligible increase in general administrative expenses and, therefore, also in the overall operating expense per revenue hour.

St. Helens–Portland

The St. Helens–Portland fixed-route service needs additional capacity to serve current demand, with further increases in demand expected in the future. Two options are available for adding capacity: (1) using larger vehicles and (2) adding additional runs. Utilizing larger vehicles would likely be an easier and more cost-effective means to raise capacity in the short-term. (Currently, two of the buses assigned to the route are not full-size [40-foot] buses). In addition, several members of the public have requested an additional a.m. run from St. Helens to Portland that would leave St. Helens around 7:30 a.m. and an additional p.m. run from Portland to St. Helens that would depart from downtown Portland around 4:30 p.m. These new runs would provide additional capacity, as well as flexibility that would make the service more convenient to County residents (thus also generating new ridership).

The County does not currently provide weekend service on the St. Helens–Portland route. Public input indicated that this would be a desirable addition for both work-related and non-work-related trips, and the high demand for weekday service indicates the potential for significant demand for weekend service. Although not as high a priority as increasing weekday service, the County should examine adding Saturday service to this route. In its simplest form, the service could consist of two round trips a day, one in the morning and one in the late afternoon. To avoid the need for separate

complimentary ADA service on Saturdays, route deviations of up to ¾ mile should be allowed for ADA-eligible passengers on this route.

Finally, a number of riders requested that the route's departure and arrival times be slightly adjusted so that buses arrive in Portland just before the hour and half-hour and then depart just after the hour and half-hour. This shift in schedule would allow people to get to and depart from work on time and in less of a rush.

Table 16 summarizes the estimated costs of these improvements.

Table 16
Estimated Costs of St. Helens – Portland Route Improvements

Improvement	Revenue Hours/Day	Revenue Hours/Year[1]	Cost/Year
Larger bus[2]	Existing	Existing	N/A
7:30 a.m. trip	2	502	$27,880
4:30 p.m. trip	2	502	$27,880
Saturday Service[3,4]	4	208	$11,550
Schedule Adjustment	Existing	Existing	N/A
Potential Total Cost			$67,310

[1]Assumes 251 weekday operating days and 52 Saturdays
[2]Likely a small increase in operating costs (e.g., a larger vehicle may use more fuel)
[3]Assumes two round-trips each Saturday
[4]Assumes that route deviations of up to ¾ mile are allowed so that separate complimentary ADA service does not need to be provided. Separate complimentary ADA service would add additional operating costs.

Vernonia

Demand-responsive service is currently the only public transportation provided by the County to Vernonia. Public input indicated a need for fixed-route service to Hillsboro and PCC-Rock Creek from Vernonia. Initially, weekday service could be provided four times a day: twice in the morning, including the possibility of a trip that would arrive in Hillsboro prior to 6 a.m. to accommodate shift workers at technology companies, and twice in the late afternoon. This route would provide transportation for Vernonia residents who work in Hillsboro (or elsewhere on the west side of the Portland region, via connections to TriMet) or study at PCC-Rock Creek. If PCC-Rock Creek opens a satellite campus in Vernonia in the future, the continuation of the route past Hillsboro might not be needed and the service hours redirected into an additional daily Vernonia-Hillsboro trip.

Public transportation connections are also needed from Vernonia to the North County and St. Helens areas. A service option requiring just one vehicle would be a weekday flex-route that travels from Vernonia to St. Helens via Scappoose three days per week and travels to Clatskanie via Mist the other two days per week, providing three round trips each day. Adding this service would reduce the need for general demand-responsive service in the area. Therefore, the currently

operating demand-responsive vehicle could be shifted on to the flex route. The vehicle would still operate the same number of service hours, but serve a different purpose. If a demand responsive-vehicle were still required for the Vernonia area, a vehicle from another area could be brought over occasionally. The shift of a vehicle from demand-responsive service to fixed-route service could potentially increase fuel costs for that vehicle.

A park-and-ride area should be provided in Vernonia, perhaps by utilizing the on-street parking provided along the side of City Hall.

Table 17 summarizes the estimated costs of these improvements.

Table 17
Estimated Costs of Vernonia Improvements

Improvement	Revenue Hours/Day	Revenue Hours/Year[1]	Cost/Year
Vernonia-PCC Service[2]	8	2,040	$111,500
Vernonia Flex-route[3]	Existing	Existing	N/A
Potential Total Cost			$111,500

[1]Assumes 251 weekday operating days
[2]Assumes four round-trips each weekday
[3]Assumes the use of an existing demand-responsive vehicle for the same number of hours

Westport–Longview/Kelso, WA

There are a number of potential improvements to this fixed-route service. These include:

- Eliminating the Longview Wal-Mart stop. The stop is on the far west side of town and adds a significant amount of travel time (i.e., cost) onto this route for little benefit. The result would be a one-way loop via the Greyhound station, the CUBS transfer center, the hospital, Amtrak, and Three Rivers Mall. The Longview Wal-Mart could still be accessed via a transfer to CUBS. In addition, if new flex-route service is implemented between Rainier and St. Helens (discussed later), the St. Helens Wal-Mart and other local sales-tax-free retail stores would be accessible to North County residents.
- Adjust the route's schedule so that it meets the timed-transfer pulse for CUBS in Longview. This would allow riders to easily transfer to and from CUBS service in order to better reach their destination in Longview or Kelso.
- Eliminate the Westport stop and have the Sunset Empire connection occur in Clatskanie. Sunset Empire is willing to consider coming to Clatskanie to make this connection. This would save Columbia County nearly three service hours per day each day the route operates. The County's transit center in Clatskanie (the former Johnson Oil gas station) would also provide a more comfortable waiting environment for passengers. The two routes should continue to meet at the same time to minimize waiting time for through passengers.
- Increase service on this route to five days per week, instead of the current three. Table 18 shows that most of the cost could be covered with the time saved by eliminating the

Longview Wal-Mart and Westport stops. As a lower priority, the County could also consider adding twice-a-day Saturday service to the Greyhound station, Amtrak station, and Three Rivers Mall, with the morning trip timed to meet a northbound train and the afternoon/early evening trip timed to meet a southbound train.

Table 18 summarizes the estimated costs of these improvements.

Table 18
Estimated Costs of Westport–Longview/Kelso, WA Route Improvements

Improvement	Revenue Hours/Day	Revenue Hours/Year[1]	Cost/Year
Remove Longview Wal-Mart Stop	(2)	(302)	($16,780)
Adjust Timing of Route	Existing	Existing	N/A
Eliminate Westport Stop	(2)	(302)	($16,780)
Five Days/Week Service	7[2]	700[3]	$38,870
Saturday Service	4[2]	208[4]	$11,550
Potential Total Cost			$16,860

[1]Assumes 151 weekday operating days under current 3 days/week schedule (251*3/5=151) or 52 Saturdays
[2]Assumes Westport and Longview Wal-Mart Stops have been eliminated
[3]Assumes 100 additional weekday operating days (251*2/5=100)
[4]Assumes two round-trips each Saturday

Table 18 shows that Columbia County could save approximately $34,000 in operating expenses by eliminating the Westport and Longview Wal-Mart stops. These savings could cover all but about $5,320 of the operating expenses that would be incurred by expanding this route to daily service. The route is used primarily for shopping trips at present, but would be likely to attract some commute and education-related trips (and therefore additional fare revenue) as a result. Depending on the distance traveled, only 2–4 additional riders per day would be needed to generate sufficient fares to cover the difference in costs.

St. Helens–Rainier

Comments received from Columbia County residents indicate that there is a need to connect Rainier to St. Helens, which is the location of County services, as well as the starting point for fixed-route service to Portland and Hillsboro. The County has recently implemented a flex-route from St. Helens to Rainier to accomplish this, using an existing demand-responsive vehicle. The Rainier service is timed to allow for individuals to transfer to the existing St. Helens-Scappoose flex-route. In addition, it should be timed to allow transferring to (in the morning) and from (in the afternoon) the Portland and PCC fixed-routes and, if feasible, to or from the Clatskanie–Longview/Kelso route as well.

Table 19 summarizes the estimated costs of this improvement.

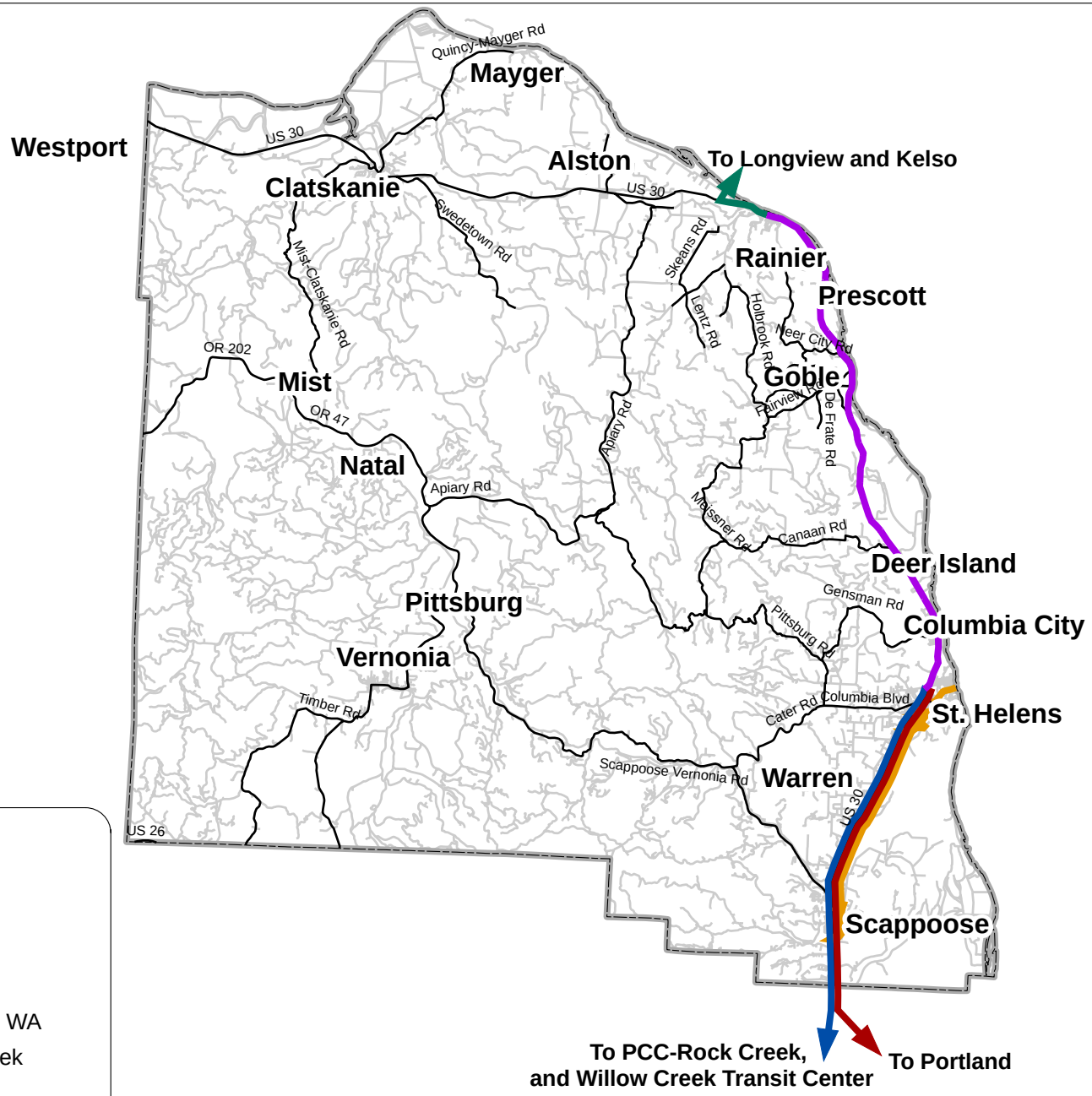
Table 19
Estimated Costs of St. Helens-Rainier Route Addition

Improvement	Revenue Hours/Day	Revenue Hours/Year	Cost/Year
Continue FlexRoute Service to Rainier	Existing	Existing	N/A

Figure 17 illustrates the existing fixed-route service in Columbia County, while Figure 18 illustrates the potential improvements described above.

Dial-A-Ride Service

Figure 19 shows the Dial-A-Ride service network. In addition to maintaining this network, the County should establish criteria for the usage of this service. This will ensure that the service is used for the purpose it was originally intended for, and not as a taxi service in areas that have flex-route service. It is recommended that Columbia County Rider pre-qualify "transportation disadvantaged" Dial-a-Ride customers, which could include seniors, persons with disabilities, and low-income riders. Columbia County could restrict usage to these populations or simply give these rides priority. This will allow the County to address the requirements of the Americans with Disabilities Act (ADA), and better allocate resources for all residents of the county. Pre-qualification could be carried out by social service agencies who already work with these populations, resulting in a minimal impact on administrative costs. Establishing a pre-qualification system should not increase operating expenses and would likely reduce the usage of (and the cost of operating) the dial-a-ride service. The County is currently exploring pre-qualification criteria for the entire county to be implemented in areas that have an alternative service to offer the residents.



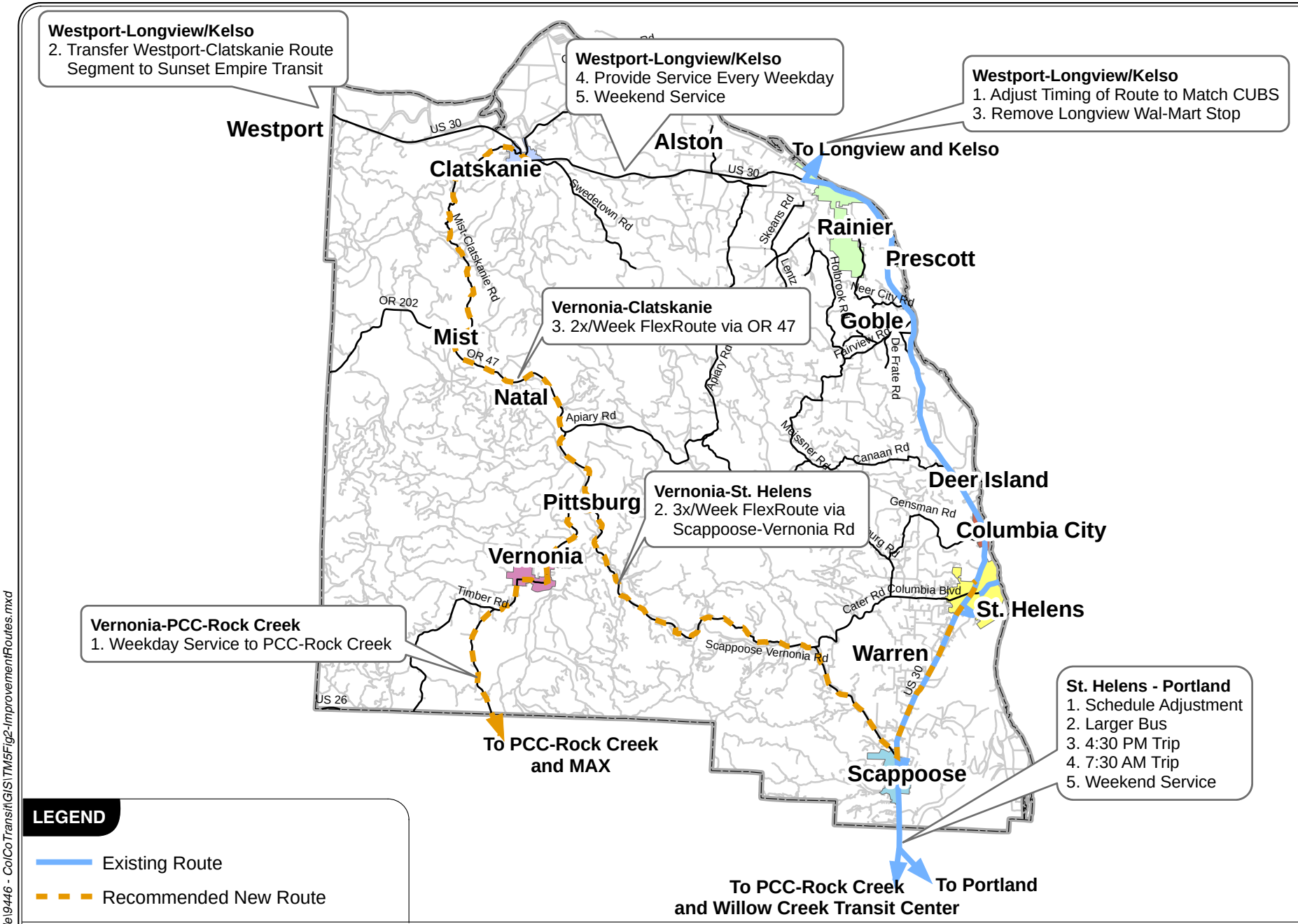
LEGEND

- Bus Stop
- Park-and-Ride
- North Flex Route
- South Flex Route
- Westport-Longview/Kelso, WA
- St. Helens-PCC-Rock Creek
- St. Helens-Portland

EXISTING ROUTES
COLUMBIA COUNTY, OREGON

FIGURE **17**

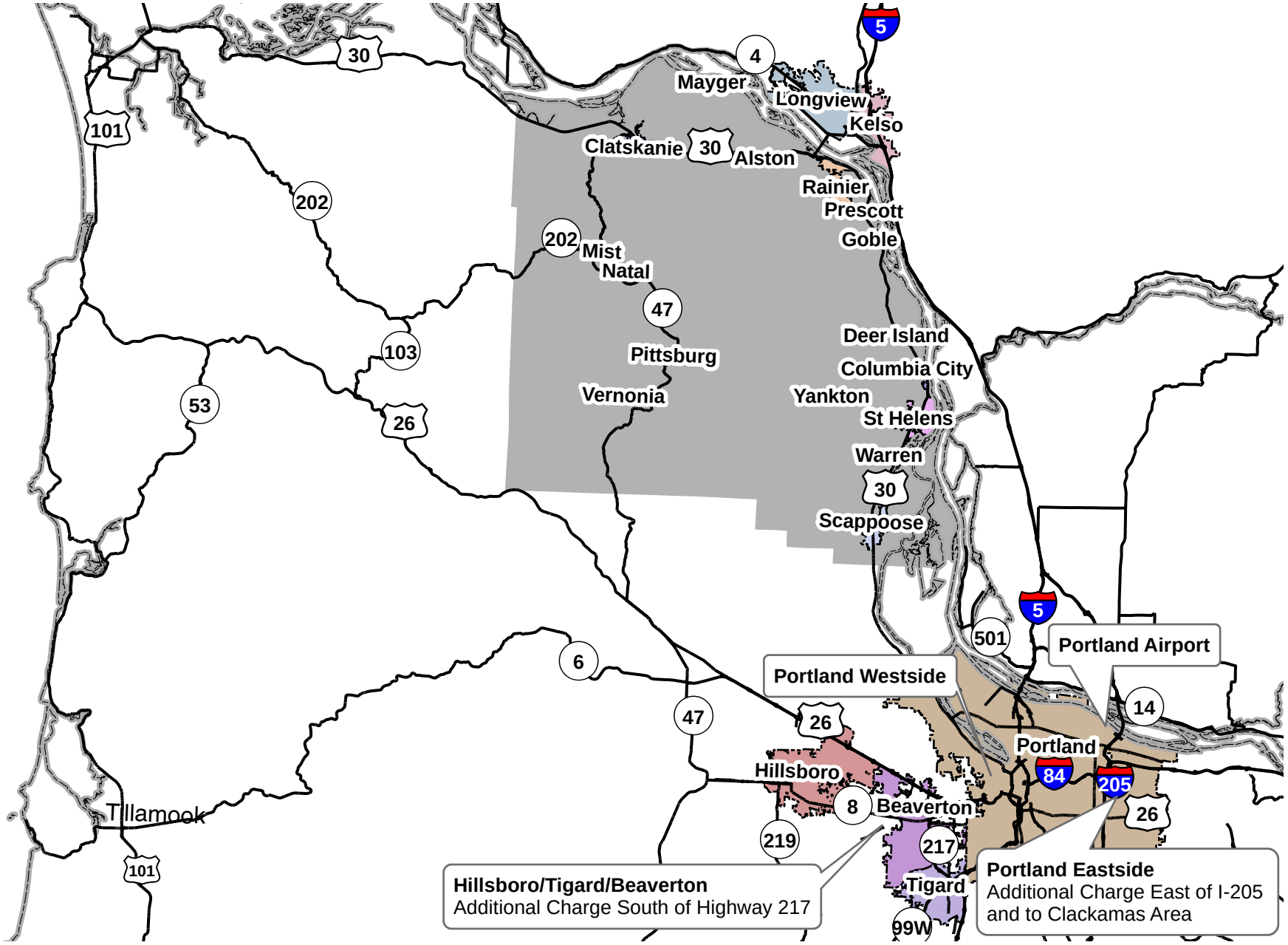
H:\profile\9446 - ColCoTransit\GIS\TM5Fig1-Routes.mxd



RECOMMENDED FIXED ROUTE SERVICE IMPROVEMENTS
COLUMBIA COUNTY, OREGON

FIGURE **18**

H:\profile\9446 - ColCo Transit\GIS\TM5Fig2-ImprovementRoutes.mxd



LOCATIONS SERVED BY THE EXISTING DIAL-A-RIDE NETWORK
COLUMBIA COUNTY, OREGON

FIGURE **19**

H:\profile\9446 - ColCoTransit\GIS\Dial-A-RideNetwork.mxd

General

A number of public comments were made about general service issues, including the website and stop signage. The website for the service should be updated on a regular basis to ensure that transit riders have accurate information regarding bus routes, schedules, and fares, and can plan accordingly for their trips. There is currently limited signage for the bus stops and park-and-rides. For a cost, ODOT can provide wayfinding signage to stops located along state highways, which would help advertise the presence of transit service and park-and-ride lots along those highways. The County should work with ODOT to identify appropriate locations and symbols for these stops. The County should also provide signs at each stop to indicate where the bus will pick up and drop off customers. It would also be helpful to provide a schedule that indicates the approximate time the bus will arrive at each stop, fares, parking information, and any other connecting service information.

PROJECTED DEMAND

For each of the service changes discussed below, projected ridership levels are provided for both 5- and 10-year horizons. In general, we assume that ridership will change in the same proportion as changes in population in the absence of new service.[8] The Oregon Office of Economic Analysis expects that Columbia County's population will grow from a current population of 48,095 to 50,364 in 2014 and 53,206 in 2019. Therefore, the estimates apply 5% and 10% growth factors to existing ridership to account for future population growth.

In addition to ridership increases resulting from population growth, demand for transit service will also rise as new service is added. Elasticity factors can be used to estimate the percent change in ridership that would occur based on a one-percent change in a given aspect of service, such as fare, frequency, or travel time. For example, suppose that buses operate three times an hour along a route. If the frequency is increased to four buses per hour, the frequency has increased by 33 percent. If the elasticity associated with such a change is +0.5, then ridership on the bus route can be expected to increase by 0.5 * 33 = 17 percent. If the route previously had 100 riders, 117 would be forecasted after the change was implemented. It should be noted that elasticities are not constant values. Increasing a route's frequency from one to two buses per hour would have a much larger impact on ridership (and a much higher elasticity associated with it) than increasing the frequency from four to five buses per hour, as there is a greater change in the convenience of the route in the first case.

[8] Actual demand will also vary based on economic conditions, fuel prices, and other factors. However, our estimates do not reflect changes in these factors, as there is no reliable method to forecast them over a 10-year horizon.

Based on studies reported in *TCRP Report 95*, an elasticity of +1.0 is typical for service improvements where the existing service operates at hourly headways or less frequently. In other words, in those situations, doubling the bus service would be expected to double the ridership. For the St. Helens–Portland route, an elasticity of +0.5 would be a typical elasticity for half-hourly service. However, because potential passengers are currently being turned away due to capacity constraints and because there is good potential for increasing County residents' awareness of the service, an elasticity of +1.0 was also used for the proposed new trips. For entirely new transit service where none previously existed, ridership per revenue hour for similar services elsewhere in the County were used to forecast demand.

Ridership and productivity on existing Columbia County transit routes is summarized in Table 20 below.

Table 20
Existing Transit Ridership and Projected Future Boarding Rates

Transit Service	Average Daily Ridership	Daily Vehicle Revenue Hours	Existing Ridership per Rev. Hour	2014 Ridership per Rev. Hour	2019 Ridership per Rev. Hour
St. Helens to Portland	213	18	11.8	12.4	13.0
St. Helens to PCC–Rock Creek	17	12	1.4	1.5	1.6
Westport to Longview-Kelso	9	11	0.8	0.8	0.9
St. Helens–Scappoose FlexRoute	21	9	2.3	2.4	2.5

Based on the information shown in Table 20, daily ridership in 2014 and 2019 was estimated for each of the proposed routes discussed above, as shown in Table 21, with all values rounded to the nearest five daily boardings.

Table 21
Projected Daily Ridership

Service	Daily Vehicle Revenue Hours	2014 Daily Ridership Demand	2019 Daily Ridership Demand
St. Helens–Portland (weekday)	22	275	285
St. Helens–Portland (Saturday)	4	50	50
St. Helens–Scappoose FlexRoute	9	20	25
Vernonia-PCC	8	20	20
Vernonia FlexRoute	9	20	25
Clatskanie-Longview[1]	7	15	20
Rainier-Scappoose FlexRoute	13	30	30
Total	73	430	455

[1] Estimate assumes that eliminating service to Westport will not reduce ridership, as a connection to Sunset Empire Transit would be available in Clatskanie.

FUTURE FUNDING

The future funding scenarios for Columbia County Rider service were described in *Section 5, Transit Funding and District Formation*. Within this section, the projected future expenditures and revenues with and without the formation of a transportation district are identified and discussed. The formation of a transportation district would allow Columbia County to establish a permanent revenue source for its transit service by allowing it to levy a county-wide property tax. Various scenarios were analyzed where the tax was assessed at a rate of $0.15 per $1,000 of assessed value and at a rate of $0.30 per $1,000. Table 22 shows the estimated expenses and revenues under these various scenarios, as well as the expected surplus or deficit. The details behind the analysis that went into these projections are contained within previous *Section 5.*

Table 22
Forecast Funding Scenarios

Scenario		2009 (est.)	2010	2011	2012	2013	2014
Without Transportation District	Revenue	$1,000,000	$1,024,000	$1,049,000	$1,074,000	$1,101,000	$1,128,000
	Expenditures	$1,029,400	$1,060,400	$1,092,100	$1,124,900	$1,158,700	$1,193,600
	Surplus (Deficit)	*($29,400)*	*($36,400)*	*($43,100)*	*($50,900)*	*($57,700)*	*($65,600)*
With Transportation District ($0.15/$1,000)	Revenue	$1,000,000	$1,581,000	$1,622,000	$1,665,000	$1,709,000	$1,755,000
	Expenditures	$1,029,400	$1,060,400	$1,092,100	$1,124,900	$1,158,700	$1,193,600
	Surplus (Deficit)	*($29,400)*	*$520,600*	*$529,900*	*$540,100*	*$550,300*	*$561,400*
With Transportation District ($0.30/$1,000)	Revenue	$1,000,000	$2,119,000	$2,177,000	$2,236,000	$2,298,000	$2,361,000
	Expenditures	$1,029,400	$1,060,400	$1,092,100	$1,124,900	$1,158,700	$1,193,600
	Surplus (Deficit)	*($29,400)*	*$1,058,600*	*$1,084,900*	*$1,111,100*	*$1,139,300*	*$1,167,400*

As shown in Table 22, Columbia County will need to either develop a new funding source or trim its expenses to avoid running a deficit in the coming years. Based on this analysis, it appears that forming a transportation district will more than cover the projected deficit, even at the lower tax rate. In fact, forming a district is expected to provide Columbia County with at least an additional $500,000 to fund expanded operations. The improvements recommended previously are estimated to increase annual operating expenses by approximately $200,000. Therefore, the establishment of the transportation district would allow for the implementation of these improvements, plus additional expansion of service within the County. Alternatively, a lower tax rate could be assessed to fund a lower level of service under demand warranted further expansion of service.

However, some of the improvements will require initial capital investments (e.g., the purchase of an additional full-size bus for the Portland–St. Helens route) that are not accounted for in the above operating cost estimates. Grant money could be acquired to help with capital investments; however Columbia County would still need to invest additional funds in order to meet local-match requirements. Consequently, it is not likely that all of the improvements would be able to be

implemented in the first five years of the existence of the transportation district. Also, costs may rise by an unforeseeable amount, which may further delay the implementation of certain improvements. Therefore the following prioritization of improvements is recommended. Table 23, Table 24, and Table 25 provide a running total of the recommended improvements.

Improvements to be implemented immediately:

- Adjust the schedule of the St. Helens-PDX fixed route so that the bus arrives just before the hour and ½ hour and departs just after the hour and ½ hour
- Work with ODOT to provide wayfinding signage to park-and-ride and bus stop locations located near US 30
- Continually update the Columbia County Rider website
- Remove the Longview Wal-Mart and Westport stops and use the cost savings to expand the service on the Westport-Longview/Kelso route to five days per week
- Utilize an existing demand responsive vehicle to provide a flex route three days per week directly between Vernonia and St. Helens
- Utilize an existing demand responsive vehicle to provide a flex route two days per week between Vernonia and Clatskanie via Highway 47
- Increase capacity on the St. Helens-PDX fixed route by utilizing a larger vehicle

Table 23
Estimated Operating Costs of Improvements to be Implemented Immediately

Improvement	Cost/Year
Portland – St Helens Schedule Adjustment	N/A[1]
Wayfinding Signage on US 30	N/A[2]
Continually Update Website	N/A[3]
Westport-Longview/Kelso Improvements	$5,320[1]
Vernonia Flex-Routes	N/A[1]
Larger Vehicle on Portland – St Helens Route	N/A[1]
Potential Total Operating Costs	**$5,320[1]**

[1] See previous sections for details of cost estimates
[2] Would require administrative time to coordinate with ODOT at the outset (ODOT to provide and maintain the signs)
[3] Would require some additional administrative time

Improvements to be implemented in the first five years (or as funding becomes available):

- Add an additional trip between St. Helens and Portland that leaves downtown Portland just after 4:30 p.m.
- Add an additional trip between St. Helens and Portland that leaves St. Helens around 7:30 a.m.

- Extend the existing St. Helens–Scappoose FlexRoute to Rainier
- Add fixed route service between Vernonia and PCC–Rock Creek

Table 24
Estimated Operating Costs of Improvements to be Implemented in 1-5 Years

Improvement	Cost/Year
4:30 p.m. Portland – St. Helens Trip	$27,880[1]
7:30 a.m. Portland – St. Helens Trip	$27,880[1]
Extend FlexRoute Service to Rainier	N/A[1]
Vernonia-PCC Service	$111,500[1]
Potential Total Operating Costs (1-5 Years)	$167,260
Immediate Improvements Operating Costs	$5,320
Potential Total Operating Costs (0-5 Years)	**$172,580**

[1] See previous sections for details of cost estimates

Improvements to be implemented in the 5–10 year timeframe (or as funding becomes available):

- Implement Saturday service between St. Helens and Portland
- Implement Saturday service between Rainier and Kelso
- Add additional trips on fixed routes as necessary

Table 25
Estimated Operating Costs of Improvements to be Implemented in 6-10 Years

Improvement	Cost/Year
Portland – St. Helens Saturday Service	$11,550[1]
Rainier – Kelso Saturday Service	$11,550[1]
Additional Fixed-route Trips	TBD[2]
Potential Total Operating Costs (6-10 Years)	$23,100[3]
0-5 Year Improvements Operating Costs	$172,580
Potential Total Operating Costs (0-10 Years)	**$195,680[3]**

[1] See previous sections for details of cost estimates
[2] Depends on the number and length of trips
[3] Plus any additional costs incurred to add fixed-route trips

Columbia County should conduct rider and community surveys biennially to help project demand for improvements. The County should also continually monitor to ridership to determine when

additional capacity is needed. This will allow the County to adapt its plans to best meet the needs of the community.

COORDINATION WITH OTHER TRANSIT PROVIDERS

Columbia County could further enhance its transit service by better coordinating with other area transit providers. These coordination efforts would likely require a negligible increase in operating expenditures, while providing potentially valuable service improvements to Columbia County Rider customers. Potential coordination efforts are described here:

Add stops at other major TriMet destinations along the existing fixed routes. This would provide additional convenient travel options to Columbia County residents. For instance, adding a fixed-stop in Linnton would make Columbia County riders aware they have the ability to transfer to TriMet's Line 17 bus to directly access the St. Johns area and other North Portland destinations without having to go to downtown Portland first.

Coordinate customer information between transit agencies. This should include links from the Columbia County website to connecting transit agency websites, as well as links from other agencies to the Columbia County website. In addition, schedules for all agencies should note the location and times of connections (as is currently done on the Westport-Longview schedules for Sunset Empire Transit). Finally, information kiosks with paper schedules should include schedules for connecting services where possible.

Coordinate schedules with those of other transit agencies that Columbia County service connects to. This will allow Columbia County riders to transfer to other local services with a minimal amount of time spent waiting to complete the transfer. This is particularly important for connections between low-frequency services, such as to Sunset Empire Transit, CUBS, and Amtrak. TriMet service—particularly light rail service and service on the Portland Mall—tends to run more frequently and is less likely to need a timed connection.

Implement fare agreements with neighboring service providers to allow Columbia County riders to transfer and ride for a reduced rate. *Section 3, Existing Conditions and Future Needs* identified that a significant percentage of Columbia County residents work outside of the County. Consequently, a number of out-of-county commuters must transfer to other service (i.e., TriMet or CUBS) to reach their final destination. Establishing agreements with other service providers would allow Columbia County transit customers to purchase reduced price passes or ticket books would save transit commuters money and encourage more people to make use of both Columbia County's service, as well as that of other local providers' service. It is acknowledged that these kinds of inter-agency agreements can take some time to implement, due to concerns about potential reductions in revenue and the need to agree on how revenue is to be shared.

Eliminate the Westport stop and have Sunset Empire's Westport Shuttle extend to Clatskanie. This was previously discussed in the Westport-Kelso/Longview, WA section. Clatskanie provides a more suitable anchor for a route than Westport in terms of a potential destination for passengers, and the Clatskanie Transit Center will provide a better waiting environment for passengers.

CARPOOL / VANPOOL

Carpools and vanpools provide additional affordable travel options for Columbia County commuters.

Promoting Carpools

Carpooling occurs when two or more people share a ride in one of the individual's private vehicles to either the same or proximate destinations. Typically, members of a carpool live near one another and share driving duties. Carpools may be set up by individuals that know each other already, or they may be set up through a ride-matching service that allows individuals seeking to carpool to register with the service. The individuals provide basic commuting information, which the service then uses to provide potential carpool matches. It is then up to the individuals to make contact and organize the carpool. Signing up for the service is not a binding commitment.

In 2005, Metro conducted a market research study that identified the most promising carpool market areas (http://www.oregonmetro.gov/files/planning/marketanalysis_rideshare.pdf). The study indicates that there are 800 commuters who work downtown and live along US 30 out to St. Helens. The results of the study can be seen in Table 26.

Table 26
Results of 2005 Metro Study on Carpool/Vanpool Markets

Most Promising Carpool/Vanpool Markets

Employment Area	Potential Market Area	Commuters
Downtown Portland	US 30 to St. Helens	800
Downtown Portland	NE of I-205/SR 500	700
Downtown Portland	**Sherwood**	**1,000**
Downtown Portland	Wilsonville	500
Downtown Portland	Oregon City	900
Beaverton	**Cornelius/Forest Grove**	**1,300**
Beaverton	**Sherwood and south**	**1,000**
Clackamas	NE of I-205/SR 14	450
Clackamas	Beaverton	500
Clackamas	Canby	300
Clackamas	Molalla	250
Columbia Corridor	Salmon Creek	500
Columbia Corridor	Beaverton	750
Columbia Corridor	Oregon City/West Linn/Gladstone	500
Columbia Corridor	Estacada	250
Hillsboro	Forest Grove and NW	650
Oregon City	Outer SE Portland/Gresham	400
Oregon City	Molalla	200
Rivergate	NE of I-205/SR 14	700
Rivergate	Outer SE Portland	500
SMART/Wilsonville	Beaverton	850
SMART/Wilsonville	**Salem**	**1,000**
Swan Island	E of I-205/SR 500	300
Swan Island	Oregon City/Gladstone	250
Tualatin	**south Hillsboro**	**1,000**
Tualatin	Washington County (north of US 26)	400
Tualatin	Newberg	500
Tualatin	Woodburn	500
Tualatin	NE/SE Portland	650
Washington Square	Newberg	800

Source:
http://www.oregonmetro.gov/files/planning/marketanalysis_rideshare.pdf

There are a number of ways that Columbia County could promote carpooling to its residents. One would be to promote the existing rideshare service website, www.carpoolmatchnw.org through the Columbia County Rider website and possibly with other marketing materials. This Metro-sponsored site serves residents of Oregon and Southwest Washington. It currently has over 11,500 registered users and can be used by people looking for a one-time trip, as well as those looking for a more-frequent carpool. Users contact each other through e-mail via the website, so privacy is maintained. Alternatively, Columbia County could set up its own carpool matching site for Columbia County residents, which is what Salem-Keizer's transit service, Cherriots, did for residents of its area (www.cherriotsrideshare.org).

Columbia County could also provide a link to the Carpool & Vanpool section of the City of Portland's website (http://www.portlandonline.com/transportation/index.cfm?c=39987). This section contains information on the incentives that the City provides to carpool commuters to downtown Portland, including discounted parking. The County could also work with local business to provide similar incentives to carpoolers that work inside Columbia County, such as providing tax breaks to businesses that provide carpool subsidies. The benefit to the County would be a reduction in transportation costs for some County residents, which could otherwise be a barrier to finding and holding a job. The County could also distribute general literature to employers to provide to employees on the benefits of carpooling. This would likely be most effective if the employers were offering to subsidize some of the costs of carpooling (e.g., paid parking, gas station gift cards, etc.).

Implementing Vanpools

Vanpools are similar to carpools, except they are larger groups of individuals (often 5–15). The vanpool driver is typically the same person each day. The van may be privately owned, provided by an employer, or leased from a vanpool organization. Columbia County could either promote existing vanpool services or implement its own program for its residents.

Carpoolmatchnw.org provides a site for residents of Oregon and Southwest Washington to set up vanpools for commuting into the Portland metropolitan area. Vanpools registered on the site travel to the Portland metropolitan area from locations as far away as Hood River, Salem, and Aurora. There are currently no vanpools that originate in Columbia County registered with this program. Vanpools registered through this site may qualify for a Metro VanPool incentive if they meet certain criteria. Under this program, Metro pays 50% of the cost of leasing the van from one of its designated providers, while the remainder of the cost is shared by the members of the vanpool. Vanpool drivers typically travel for free in this program. Columbia County Rider could promote this service on its website. This service would be especially useful to individuals from the same area traveling to a common destination, but do not have convenient access to fixed-route transit service (e.g., Intel employees who live in Vernonia).

Since Metro's program is targeted toward individuals commuting into the Portland metropolitan area, Columbia County could set up a vanpool service for individuals commuting to locations within the county or other locations outside of the metro area. This could entail setting up an agreement with a vanpool provider and then paying a subsidy to help cover the costs of leasing the vans to individual vanpools. Cherriots in Salem-Keizer uses a grant provided by ODOT to fund a 20-50% subsidy (lease and gasoline) of vanpools that register with the Cherriots Rideshare program. The Ada County Highway District (ACHD) in Ada County, Idaho, operates the oldest multi-employer vanpool program in the country and provides incentives, such as the first month is free for new vanpools. ACHD staff also assist employers interested in providing commuter tax benefits or other vanpool incentives. A Columbia County service would be most effective for county residents traveling across the county (e.g., Clatskanie to St. Helens, or Vernonia to St. Helens) or to areas outside the county not served by the Metro program (e.g., St. Helens to Longview, or Clatskanie to Kelso).

FARE PROPOSAL

Columbia County Rider currently provides three distinct types of service to meet its market needs: fixed-routes to Portland, flex-routes within the County along US 30, and demand responsive service for the elderly and persons with disabilities throughout the County. This lends itself to creating fare structures by type of service. Following are descriptions of each of the current fares by type of service, along with the recommendations for how these fares should be structured in the future, based on the proposed service plan.

Fixed-Route Fares

Existing Fixed-Route Fare Structure

Columbia County Rider offers cash, non-discounted tickets, and monthly passes. The fixed route cash fare is set based on start and end of trip (St. Helens to Scappoose is $3.30 while St. Helens to Portland is $4.80). The monthly pass, however, is a flat rate at $106.80. The current fares are outlined in Table 27.

Reduced fares follow the same structure as the adult fare, with a zone-based cash fare and a flat-rate monthly pass fare. Reduced fares are available for seniors (ages 55 and over), children under age 10, and persons with disabilities.

Fare policy decisions are made as a result of a specific problem. The first fare increase in over 15 years was implemented November 1, 2008 to cover increasing costs predominantly associated with high diesel fuel costs.

Table 27
Existing Fixed-Route Fares

To: / From:	**Portland / Hillsboro**	**St. Helens / Scappoose**	**Rainier**	**Longview / Kelso**	**Clatskanie**	**Westport**	**Vernonia**
Portland / Hillsboro		$4.80	No Service	No Service	No Service	No Service	No Service
St. Helens / Scappoose	$4.80	$3.30	No Service	No Service	No Service	No Service	No Service
Rainier	No Service	No Service	$3.30	$5.80	$3.30	$4.80	No Service
Longview / Kelso	No Service	No Service	$5.80	$5.80	$5.80	$5.80	No Service
Clatskanie	No Service	No Service	$3.30	$5.80	$2.80	$2.80	No Service
Westport	No Service	No Service	$4.80	$5.80	$2.80	$2.80	No Service
Vernonia	No Service	No Service	No Service	No Service	No Service	No Service	No Service

Recommended Fixed-Route Fare Structure

The proposed service plan would expand the fixed-route service offered by Columbia County rider over the next five to 10 years on existing routes. One new fixed-routes is being proposed, from Vernonia to Hillsboro and PCC Rock Creek. The proposed fare structure reflects this service plan, and is robust enough to accommodate any future new fixed route service.

Due to Columbia County's large size and relatively sparse population, it is recommended that a formal zone-based fare structure be put into place. Under the proposed structure, Columbia County would be split into four zones: St. Helens/Scappoose, Rainier/Longview/Kelso, Clatskanie, and Vernonia. Figure 20 illustrates the zone boundaries for each of the four zones. One zone is also proposed outside of Columbia County: Portland/Hillsboro.

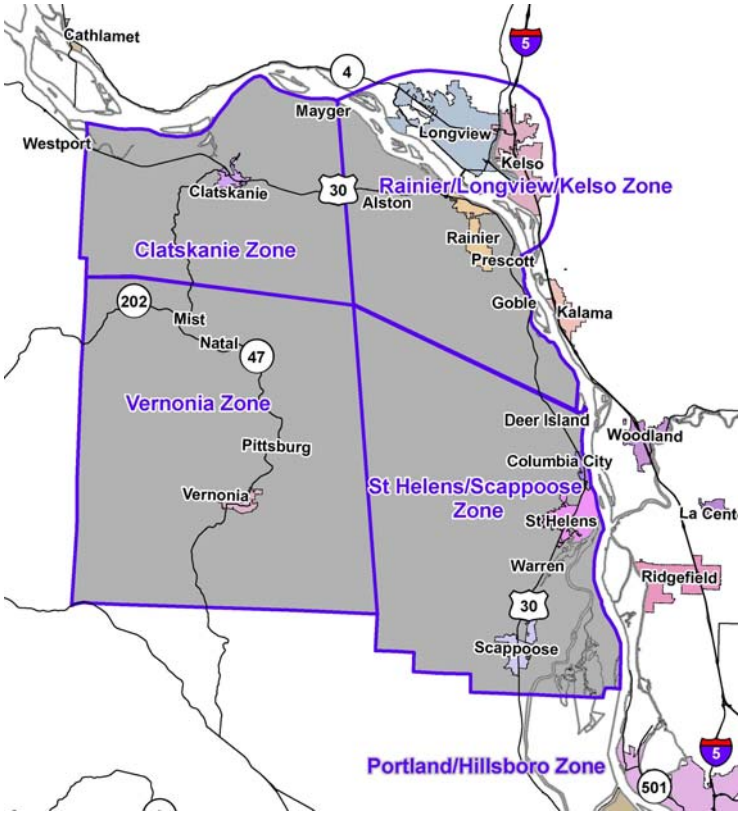


Figure 20 Proposed Fare Zones

The adult fare for each zone would be priced at $2.50. Travel within one zone would cost $2.50, with an additional $2.50 charged for each zone to be entered on the trip. In other words, a trip from St. Helens to Scappoose would cost $2.50, whereas a trip from St. Helens to Downtown Portland would cost $5.00. The "to-from" matrix in Table 28 illustrates the proposed fares for the zones that have fixed-route service.

Table 28
Proposed Fixed-Route Fares

From: \ To:	**Portland / Hillsboro**	**St. Helens / Scappoose**	**Rainier / Longview / Kelso**	**Vernonia**	**Westport / Clatskanie**
Portland / Hillsboro		$5.00	No Fixed-Route Service	$5.00	No Fixed-Route Service
St. Helens / Scappoose	$5.00	$2.50	No Fixed-Route Service	No Fixed-Route Service	No Fixed-Route Service
Rainier / Longview / Kelso	No Fixed-Route Service	No Fixed-Route Service	$2.50	No Fixed-Route Service	$5.00
Vernonia	$5.00	No Fixed-Route Service	No Fixed-Route Service	$2.50	No Fixed-Route Service
Westport / Clatskanie	No Fixed-Route Service	No Fixed-Route Service	$5.00	No Fixed-Route Service	$2.50

In addition, it is recommended that discounts be provided for youth, seniors, and persons with disabilities. A "reduced" fare would be established for persons ages 12 and under, ages 62 and over, with a Medicare card, or having a disability. Reduced fares would be 50% of the regular fixed-route fare.

Monthly passes should be made available for regular passengers, and should be priced according to zones. Since the bulk of the fixed-route trips are for two-zone travel, it is proposed that pass a two-zone pass be made available based on the cost of 28 one-way trips per month, which would be $140.00.

Flex-Route Fares

Existing Flex-Route Fare Structure

The Flex-Route is a regularly scheduled service that has a limited amount of time built into the schedule so it can deviate from the scheduled route to pick-up or drop off passengers closer to their stop. The initial flex-route service between St. Helens and Scappoose ("South" route) costs $1.50 per one-way trip. Recently the proposed Rainier to St. Helens ("North' route) was implemented, also for $1.50 per trip. Transfers are free between the North and South Flex-routes when made at the transfer point in St. Helens, making it $1.50 for a trip from Rainier to Scappoose. There is no discount for youth, seniors, or persons with disabilities, and no monthly pass.

Recommended Flex-Route Fare Structure

The current flex-route fares are designed to serve the local, intra-county "walk access" trip where riders walk to the stop from their home and destination. This compares to the fixed route service that relies primarily on park and ride access to the bus. The proposed service plan includes a St. Helens "North" route (implemented during the development of this plan); and two Vernonia routes: North to Clatskanie and West to Scappoose and St. Helens.

The flat fare structure of $1.50 for any ride, with free transfers, is a strong marketing tool for developing transit service. In the long term, this policy should be revisited as this may become a revenue drain as the system expands.

Flex-Route Service

- One Way: $1.50 Cash
- Free transfers when transferring directly between vehicles at the transfer point
- A $4.50 Day Pass could be considered in the future if passenger activity indicates there is a market for all day travel.

It is recommended that, because of the low fare, the policy of no discounts be provided for youth, seniors, and persons with disabilities be continued.

Dial-a-Ride Fares

Existing Dial-a-Ride Fare Structure

Dial-a-Ride fares are based solely on distance traveled; there is no reduced fare offered, nor is a monthly pass valid on the demand-responsive service. Common trips, such as Scappoose to St. Helens, have set fares, but these are not published or generally available to the public.

Recommended Dial-a-Ride Fare Structure

Fares should continue to be set for each individual trip based on the estimated travel time, including wait times for appointments when the vehicle must remain on location for the customer. The fare would be estimated at the time of booking the trip. The information provided generally to the public would be the estimated cost per hour, for example $10.00 per hour, or $2.00 per trip, plus $5 per half hour after the first 30 minutes.

The benefit of this option is the ability to charge directly based on the estimated cost of each trip. The drawback is that, similar to today, customers won't know the fare until they call to book the trip.

Coordination with Other Providers

SETD (Astoria), CUBS (Longview/Kelso) and TriMet (Portland/Hillsboro) should be approached for developing a regional coordinated fare structure that would allow transfers between services.

Transit Dependent Riders

Low income, transit dependent riders are a vulnerable population that often lack resources needed to improve their lives. Access to transportation is critical to meeting basic needs, and transit is often the only option. Some transit properties have instituted low-income fares to address this need, while others rely on social service agencies to provide transit fares. Using local social service

agencies as a partner is effective and efficient because they already are verifying income and need, relieving the agency of that duplicative administrative burden.

The flex-route service is priced low and provides one reasonable transportation option within the flex-route service areas. For addition reduced and/or free fares, it is recommended that Columbia County Rider work with local social service agencies to establish programs whereby the agencies provide fares directly to their clients. This puts the fares directly into the hands of those most needed assistance and reduces the potential for fraud.

Future Fare Increases

As noted previously, Columbia County did not raise fares for 15 years. The result is that fares do not keep pace with inflation and fares become an ever declining source of operating revenue. This limits the ability to provide needed service expansion and can even result in service cuts if new sources of revenue are not secured. In planning the fare system, it is important to establish a policy for maintaining reasonable and equitable fares. In general, small frequent fare increases are easier for the public to accept and adjust to than large infrequent increases. This needs to be balanced with the convenience of the denomination of the fare. It is unrealistic to have fare increases less than 5¢ and public comment after the November 2008 fare increase indicated that many would like to see increases rounded to 25¢ on the commuter service.

It is recommended that the County pursue fare increases that generally keep pace with inflation, implemented every 2-4 years. If fares increased 5% over that period, it would be a 25¢ increase on the commuter service and a 10¢ increase for flex-route service. The monthly pass and day-pass would increase commensurately, as would dial-a-ride service.

PRIORITIZATION OF SERVICE IMPROVEMENTS AND FARE CHANGES

Implement Immediately

The following recommendations are low-cost changes that may be implemented easily to benefit transit service without significant changes to existing service.

- Adjust the schedule of the St. Helens-Portland fixed route so that the bus arrives just before the hour and ½ hour and departs just after the hour and ½ hour
- Work with ODOT to provide wayfinding signage to park-and-ride and bus stop locations located near US 30
- Continually update the Columbia County Rider website
- Remove the Longview Wal-Mart and Westport stops and use the cost savings to expand the service on the Westport-Longview/Kelso route to five days per week
- Coordinate customer information between transit agencies

Short-Term (1–5 Years)

Recommended short-term improvements are low-cost improvements that will help raise the visibility of transit service to the general public, improve passenger comfort and convenience, and improve access to transit service. These improvements should be implemented as soon as funding becomes available. Recommended service improvements, policy changes, and fare changes are listed below.

Service

- St. Helens-Portland
    - Add an additional trip between St. Helens and Portland that leaves St. Helens around 7:30 a.m.
    - Add an additional trip between St. Helens and Portland that leaves downtown Portland just after 4:30 p.m.
    - Purchase additional full size bus to expand capacity
    - Add stops at TriMet destinations along existing fixed routes.
- Provide Flex-route service between St. Helens and Rainier
- Westport-Longview/Kelso
    - Remove the Longview Wal-Mart and Westport stops and use the cost savings to expand the service on the Westport-Longview/Kelso route to five days per week;
    - Adjust schedule to meet time-transfer pulse for CUBS in Longview;

  - Eliminate Westport stop and have Sunset Empire connection in Clatskanie; and,
  - Increase service from three to five weekdays.

- Vernonia services:
  - Add Flex-route service between Vernonia and St. Helens three days a week and between Vernonia and Clatskanie two days a week.
  - Add daily fixed-route weekday service from Vernonia to Hillsboro and PCC-Rock Creek.

- Promote formal carpool programs to provide additional affordable travel options
- Establish improved criteria for Dial-a-Ride service to target service to those who have no alternative

Fares

- Establish a fare policy for maintaining reasonable and equitable fares:
  - Zone-based fares for fixed route service; flat fare for Flex-route service; Dial-a-ride service based on the estimated cost of the ride as determined at the time of booking the ride.
  - Small, frequent fare increases are preferred over large, infrequent increases. Fare increases should generally keep pace with inflation and be implemented every two to four years.
- Develop a regional coordinated fare structure to allow transfers between connecting transit providers: SETD (Astoria), CUBS (Longview/Kelso), and TriMet (Portland/Hillsboro).
- Establish programs to provide fares directly to local service agencies, allowing transit dependent riders continued access to low fares while maintaining system integrity.

Mid-Term (5–10 Years)

Recommended mid-term improvements have higher costs overall, higher costs per passenger served, or improve an existing stop but are considered less essential. If funding can be obtained for them, however, there is no reason why they should not be implemented sooner.

- Implement Saturday service on all fixed routes
- Add a weekday fixed-route connection between St. Helens and Rainier
- Extend Vernonia Flex-routes to five days a week

Long-Term (10+ Years)

Although grant money could be acquired to assist with initial capital investments, the County needs operating revenue to fund service improvements. Additional long term goals include the following:

- Expand fixed route service to Sundays
- Develop a service restructuring plan to support potential Commuter Rail service.

Section 8
US 30 Transit Access Plan

US 30 Transit Access Plan

Included within this section is a report that identifies the location and design of future transit stops, existing and future conditions analysis at the stops, and an evaluation of these stops against the Final Facilities Evaluation Matrix which incorporates the findings of the analysis.

US 30 TRANSIT ACCESS PROGRAM

New transit stations and improvements to existing stations are needed to support these service improvements. Of the 22 new and existing bus stops identified in this plan, 12 are proposed to provide park-and-ride facilities. These locations were identified to attract potential transit riders who own a vehicle but would rather not drive all the way to their destination, such as commuters heading into Portland or Longview. Because Columbia County is a rural county, with potential patrons spread over a large area, park-and-ride facilities are valuable for attracting significant ridership. The park-and-ride sites were also selected based on the availability of land for locating parking spaces. Figure 21, Figure 22, and Table 29 list and depict the existing and proposed transit stops for Columbia County Rider that are evaluated herein.

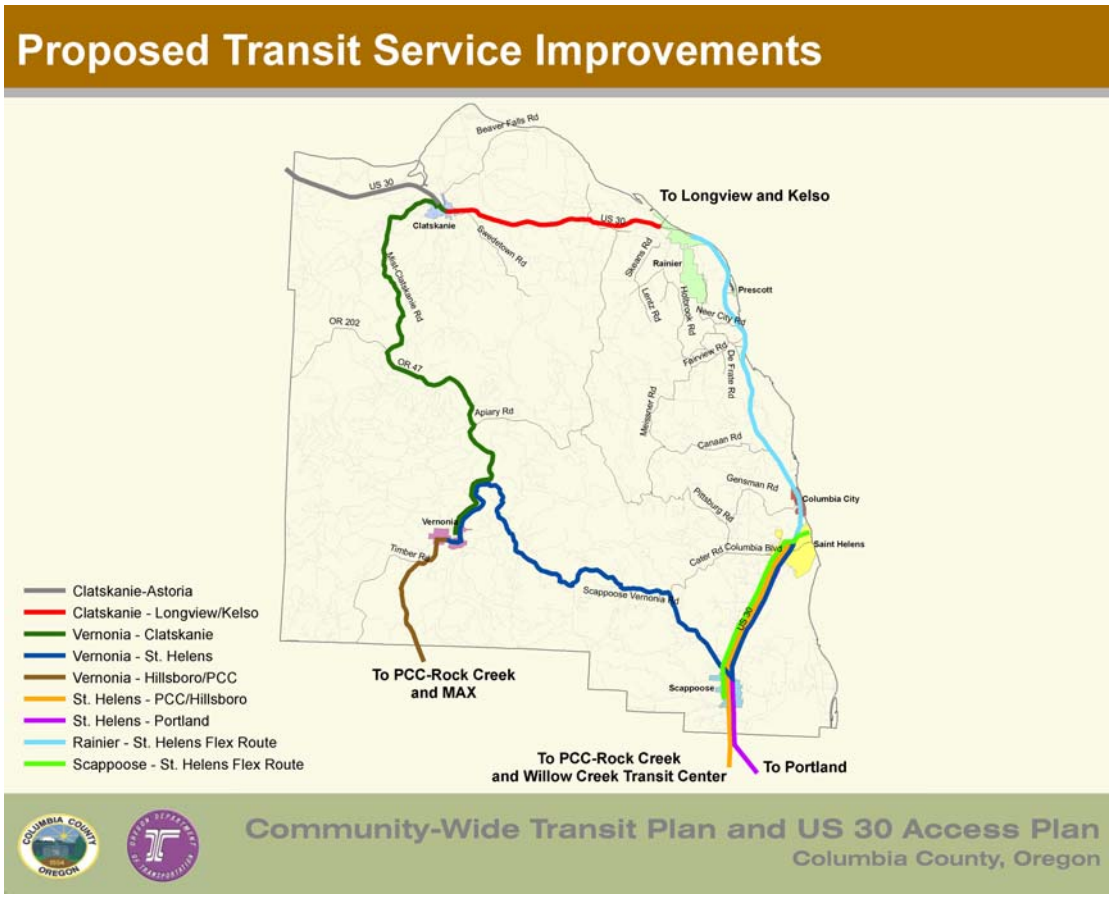
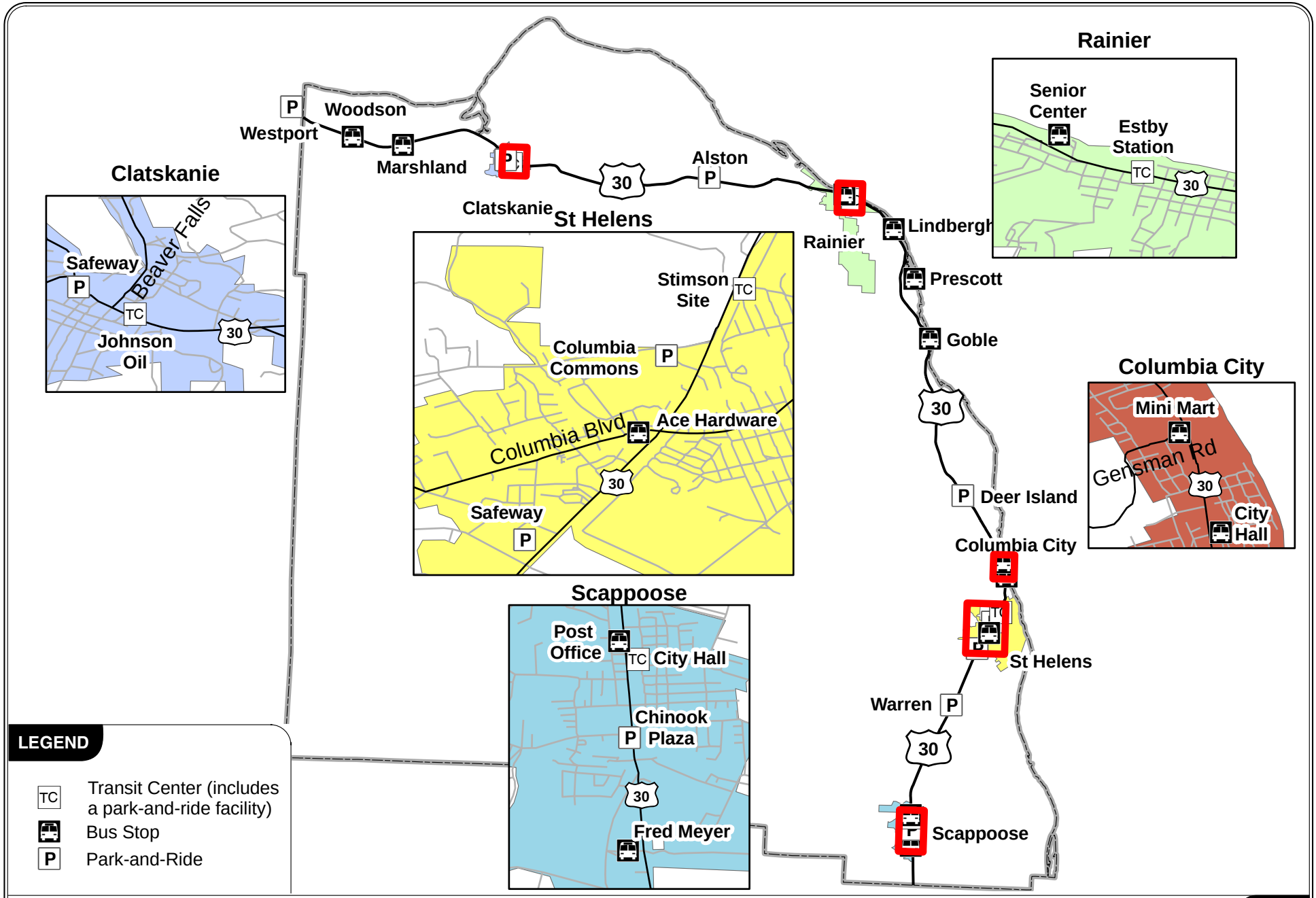


Figure 21 Recommended Future Service



H:\profile\9446 - ColCoTransit\GIS\BusStopEvalMap.mxd

POTENTIAL BUS STOPS AND PARK-AND-RIDE FACILITIES ALONG US 30
COLUMBIA COUNTY, OREGON

FIGURE 22

Table 29
Columbia County Transit Stop Locations

Community	Location	Service	Bus Stop Type Evaluated
Scappoose	Fred Meyer	Flex Route	Bus Stop
Scappoose	Chinook Plaza	Fixed & Flex Routes	Park-and-Ride
Scappoose	City Hall	Fixed & Flex Routes	Transit Center
Scappoose	Post Office	Flex Route (SB only)	Bus Stop
Warren*	Baptist Church	Fixed Route	Park-and-Ride
St. Helens	Safeway	Fixed & Flex Routes	Park-and-Ride
St. Helens	Ace Hardware	Flex Route	Park-and-Ride
St. Helens	Columbia Commons	Fixed & Flex Routes	Park-and-Ride
St. Helens	Stimson site	Fixed & Flex Routes	Transit Center
Columbia City	City Hall	Flex Route	Bus Stop
Columbia City	Mini Mart	Flex Route	Bus Stop
Deer Island*	Deer Island Store	Flex Route	Park-and-Ride
Goble*	Tavern (SB)/Marina (NB)	Flex Route	Bus Stop
Prescott	Blakely Road	Flex Route	Bus Stop
Lindberg*	Lindberg Store	Flex Route	Bus Stop
Rainier	Estby station	Fixed & Flex Routes	Transit Center
Rainier	Senior Center	Fixed & Flex Routes	Bus Stop
Allston*	Alston Store	Fixed Route	Park-and-Ride
Clatskanie	Johnson Oil	Fixed Route	Transit Center
Clatskanie	Safeway	Fixed Route	Park-and-Ride
Marshland*	Marshland Road (east jct.)	Fixed Route	Bus Stop
Woodson*	Woodson Road	Fixed Route	Bus Stop
Westport*	Old Mill Town Road	Fixed Route	Park-and-Ride

* Unincorporated community
NB: northbound, SB: southbound, green shading indicates park-and-rides, orange shading indicates transit centers

As shown in Table 29, three types of bus stops are identified for the US 30 corridor:

Bus stops provide a location for the bus to stop to pick up and drop off passengers. All of the stop's passengers are expected to walk or bike to the stop, or to be dropped off by others. No officially designated parking spaces are provided. At a minimum, bus stops should provide a bus stop sign. Depending on site conditions and anticipated passenger volumes, any of the following could also be provided:

- Bus pullout, if the site meets one of the conditions listed in the Oregon *Highway Design Manual* (see page 3 of the Design Toolbox).

- Accessible bus shelter and bench, if space is available and if passenger volumes are anticipated to be relatively high or passengers may have to wait for long periods of time (e.g., after finishing shopping or after a medical or social service appointment).

- If no shelter is provided, but space is available, a bench can also be considered by itself.

- Bus information (e.g., schedule, route, fares), which can be located inside a display unit mounted to the bus stop pole or posted inside a shelter (if provided).

- Light fixtures, if no lighting is currently provided at the site. Light fixtures can be mounted to existing utility poles or, if no power is available at the site, solar-powered lighting units are available for bus shelters.

Park-and-ride lots provide all-day parking for bus passengers. The majority of the stop's passengers will arrive by automobile, although a few may walk or bike to the stop, depending on the adjacent land uses. The lot sizes evaluated range from 10–75 spaces. Lots can be located on property owned by the County, or can be located on private property, where the landowners have given permission. All park-and-ride lots should have bus stop signage, wayfinding signage from the highway to the parking lot, posted bus information, and (at lots on private property) signing and/or paint markings indicating which spaces are designated for park-and-ride use. Whenever possible, an accessible bus shelter should be provided (this may not be possible on private property). Lighting should be available at the site.

Transit centers provide opportunities for passengers to transfer between bus routes. Many passengers will arrive and depart by bus. All of the sites evaluated as potential transit enters also have room for park-and-ride lots, so some passengers will also arrive by automobile. Depending on the adjacent land uses, some passengers may also arrive on foot or by bicycle. Transit centers provide multiple bus stops, to facilitate timed transfers between bus routes. They should also have wayfinding signage from the highway to the park-and-ride lot, posted bus information, and covered waiting areas (e.g., an accessible bus shelter or, at the former gas station sites, an accessible waiting room). Lighting should be available at the site.

BUS STOP LOCATIONS

This section identifies 23 locations within the US 30 corridor for future bus stops. The majority of these locations have service today, as the startup of the Rainier–St. Helens flex route in February added six new stops to the US 30 corridor. Locations that are not served at the present time, or that are served on a flag-stop basis only, are:

- St. Helens: Stimson site, which is being considered for a future transit, maintenance facility, and transit administration building
- Marshland (unofficial flag stop)
- Woodson (unofficial flag stop)

Buses currently stop off the highway in nearly all locations (Westport and the Scappoose Post Office being exceptions), because there is generally insufficient shoulder width on the highway to allow buses to safely pull out of the travel lane. Bus stops are generally located east/south of the railroad tracks (Scappoose City Hall, Columbia City Hall, and Goble Marina are exceptions), to avoid potential delays due to railroad crossings being blocked by trains.

Information presented about each stop consists of the following:

- Aerial photo of the site vicinity
- Ground-level photo of the site location
- For locations where a traffic analysis was performed (generally locations with new or expanded park-and-rides), a summary box provides the volume-to-capacity ratio, average delay, and level of service for the US 30 intersection serving the site. Where no traffic analysis was performed, the summary box provides the reason(s) why (e.g., no park-and-ride is proposed for the location).
- A site description, including location, land uses served, and proposed future service.
- A summary of park-and-ride facilities provided at the site now, or planned in the future.
- For locations where a traffic analysis was performed, a description of traffic operations at the US 30 intersection serving the site.
- A summary of recommended improvements for the site, including bus stop amenities, parking improvements, and street improvements, as necessary.
- A cost estimate for making the recommended improvements. Cost estimates treat each site as an individual (generally small) project; there would potentially be cost savings if multiple projects (e.g., shelter installations) could be completed at the same time. Costs are in 2009 dollars and are not adjusted for future inflation. Costs for more substantial construction (anything besides sign and shelter installation) include a 50% allowance for project design, unknown site-specific conditions, and cost contingencies. Accessible bus shelter costs include installing a concrete pad for the shelter and an information sign inside the shelter. Estimates do not include the costs of acquiring property or easements.
- If necessary, other comments pertaining to the site.

Scappoose: Fred Meyer

No park & ride proposed.
Traffic signal at nearest intersection.
Highway milepost: 19.76

Site Description

The stop would be located on the north side of Havlik Drive west of (after) the main entrance to the Fred Meyer parking lot and would be served by southbound buses on the St. Helens–Scappoose flex route loop. The pedestrian connection from Havlik Drive to the Fred Meyer store entrance is located nearby. The US 30/Havlik Drive intersection is signalized. Commercial land uses are located on both sides of Havlik Drive. There is no designated speed zone for Havlik Drive, thus the statutory speed of 25 mph would apply.

Park-and-Ride

No park-and-ride is proposed for this site and no on-street parking is available in the area.

Existing & Future Bus Service

- St. Helens–Scappoose flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop sign
    - Accessible bus shelter and bench (would require an easement from Fred Meyer)
    - Bus service information.

Cost Estimate

Signage, accessible shelter, service information: $8,100

Comments

Buses currently stop within the Fred Meyer parking lot in both directions on their trip. Because of congestion within the parking lot associated with the gas station and to save travel time for the bus, our recommendation is to move the bus stop on street and serve the stop only on the southbound (westbound here) portion of the flex route loop. There is only one stop on the loop beyond Fred Meyer—the OHSU clinic located about 600 feet to the west—so passengers would not experience much added travel time if the bus stopped southbound only at Fred Meyer. Having a stop only on the Fred Meyer side of the street would also reduce mid-block pedestrian crossing demand to get to a bus stop and would reduce the amount of transit infrastructure needed.

ODOT notes that substandard northbound left-turn and southbound right-turn deceleration and storage lane lengths currently exist at the US 30/Havlik Drive intersection. However, no increase in turn-lane use is anticipated as a result of transit activities at this bus stop.

Scappoose: Chinook Plaza

View looking north

No park & ride expansion proposed.
Traffic signal at nearest intersection.
Highway milepost: 20.53

Site Description

The site is located in the northeast corner of the Chinook Plaza parking lot, adjacent to the signalized US 30/SW E.M. Watts Road intersection and with access to both roadways. The posted speed on US 30 is 35 mph, and a 20-mph school zone is also in effect in the area. A bus stop sign is located in the landscaped area in the corner of the parking lot. The site itself, and other properties to the south along US 30 have commercial uses. Scappoose Middle School is located north of the site, while land to the west consists of residential land uses. Northbound buses turn into the parking lot from US 30 using the center two-way left-turn lane, and exit via E.M. Watts Road, using the traffic signal to turn back onto US 30. Southbound buses travel in the reverse direction.

Park-and-Ride

Columbia County Rider currently has an informal agreement with the shopping center's owners to use the site as a park-and-ride. There is no exact number of designated spaces, nor any signage or pavement markings, but there are approximately 30 parking spaces in the northeast corner of the lot. In the past, the shopping center's owners have not wanted a formal agreement, to give themselves flexibility if a small user, such as a coffee stand, wanted to locate in the parking lot.

Existing Bus Service

- St. Helens–Portland fixed route (10 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Desirable site improvements include installing an accessible shelter and bench and an accessible sidewalk and ramp from the street into the corner of the parking lot where the bus stop is located. However, given (1) the potential for the site to become unavailable at any time, and (2) the possibility of a new park-and-ride across from City Hall, any expenditures on improvements here should be carefully considered unless a formal agreement for the site can be developed.
    - Bus service information mounted on the bus stop pole.
- *Parking improvements:*
    - Unless the site's park-and-ride usage increases to the point where the site's owners feel it is interfering with shopping center parking, there is not a need to mark specific park-and-ride spaces.
- *Street improvements:*
    - Repair the sidewalk on the west side of US 30 north of SW E.M. Watts Road. (According to ODOT, Scappoose will be receiving stimulus money for sidewalk repairs.)
    - Provide park-and-ride signage from US 30 at the parking lot entrance (2 signs)

Cost Estimate

Replacement bus stop pole with bus stop sign: $500
Accessible shelter: $7,500
On-site sidewalk and curb ramp: $7,800
2 park-and-ride signs on US 30: $500
Sidewalk repairs assumed to be addressed through stimulus funding.

Comments

According to ODOT, the northbound left-turn lane from US 30 to SW E.M. Watts Road has substandard minimum deceleration and storage lengths; this issue could be addressed by restriping a portion of the center two-way left-turn lane. However, park-and-ride and transit vehicles would tend to use the driveway to the south and not this left-turn lane; therefore, no increase in turn-lane use is anticipated as a result of transit activities at this bus stop.

Scappoose: City Hall

View looking south

US 30/Columbia Avenue:
AM: v/c = 0.63, delay = 11.7 s, LOS B
PM: v/c = 0.71, delay = 13.8 s, LOS B

Highway milepost: 20.90

Site Description

The site is located across from Scappoose City Hall, north of NE Columbia Avenue and between the railroad tracks and NE 1st Street. The site is owned by the ODOT Rail Division and is currently used informally as a park-and-ride lot. Surrounding land uses are commercial and institutional, with residential land uses located farther to the north, south, and east. The site is proposed as a transit center, with an accompanying park-and-ride lot. If commuter rail service were to be developed in the future, this site would be a likely station location. The posted speed on US 30 at the intersection is 35 mph. Northbound and southbound buses currently access the site by looping around the block via NE Columbia Avenue, NE 2nd Street, NE Prairie Street, and NE 1st Street. Turn lanes are provided for bus movements (northbound right turn and southbound left turn) at the US 30/NE Columbia Avenue intersection.

Transit Center

The area bounded by the railroad tracks, NE Columbia Avenue, NE 1st Street, and NE Watts Street would be developed as a transit center. As part of the work, NE 1st Street would be widened by 6 feet to provide two 12-foot travel lanes and a 6-foot sidewalk would be added on the west side. The site has sufficient space to provide five sawtooth bus pullouts, which would allow one pullout for future expansion. From US 30, buses would access the transit center via NE Columbia, NE 2nd Street, and NE Watts Street, as there is insufficient room for buses to make a 180-degree turn from NE 1st Street into the transit center. Buses would exit the center onto NE 1st Street and make a right turn onto NE Columbia Avenue to return to US 30.

Park-and-Ride

There are two park-and-ride options in the area. The first option would construct a 70-space parking lot within the ODOT Rail right-of-way between NE Watts Street and NE Williams Street. NE 1st Street would be widened by 6 feet and a 6-foot sidewalk constructed on the west side as part of the site development. In addition, a 6-foot sidewalk would be constructed on the west edge of the lot to connect to the transit center. Automobiles would share the bus entrance from NE 1st Street opposite NE Watts Street, and would then turn north to enter the parking lot. The parking lot would provide one-way northbound circulation and vehicles would exit onto NE Williams Street.

There is also undeveloped property on the east side of NE 1st Street between NE Columbia Avenue and NE Prairie Street that could accommodate an approximately 40-space parking lot. Access would be taken mid-block on NE 1st Street. Sidewalks would need to be provided along the site frontage, where they do not already exist.

Existing Bus Service

- St. Helens–Portland fixed route (10 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)
- Vernonia–St. Helens flex route (3 trips/day, 3 days/week)

Traffic Operations

With full utilization of the park-and-ride, the intersection would meet ODOT operations standards (v/c of 0.75 or less) during both the a.m. and p.m. peak hours. Because of the presence of the Chinook Plaza park-and-ride to the south, most park-and-riders would arrive from the east (not passing through the intersection) or the north. In the event of a train crossing event during the a.m. peak hour within 10 minutes of a southbound fixed-route bus departure, the presence of the park-

and-ride is forecast to add an average of 3 vehicles to the southbound left-turn queue; these vehicles would stack in the two-way left-turn lane in the middle of US 30 while waiting for the train to clear the crossing. The park-and-ride would also add an average of 1 vehicle to the northbound queue during a train-crossing event; the Lower Columbia River Rail Corridor Study found that the available northbound storage would be exceeded by 110 feet for a 5-minute train crossing duration and by 460 feet for a 10-minute train crossing duration.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signs (4—one for each bus bay used initially)
    - Accessible shelters and benches (4—one for each bus bay used initially)
    - Off-street bus bays (5) with concrete pads and concrete bus drive
    - Bus service information
    - On-site lighting
    - Formalize an agreement with ODOT Rail to develop the transit center.
- *Parking improvements:*
    - Formalize an agreement with ODOT Rail to develop the area between the railroad tracks and NE 1st Street, from NE Watts Street to NE Williams Street, as a park-and-ride lot, or
    - Acquire the property east of NE 1st Street between NE Columbia Avenue and NE Prairie Street for use as a park-and-ride lot.
- *Street improvements:*
    - Widen NE 1st Avenue to 24 feet and provide a 6-foot sidewalk along all site frontages (transit center and park-and-ride lot).
    - Repair the sidewalk on the north side of NE Columbia Avenue between US 30 and NE 1st Street. (According to ODOT, Scappoose will be receiving stimulus money for sidewalk repairs.)
    - Provide park-and-ride signage from US 30 to the parking lot entrance (4 signs: one for each direction of US 30 prior to NE Columbia Avenue, one on westbound NE Columbia Avenue at NE 1st Avenue, and one at the park-and-ride entrance for northbound traffic on NE 1st Avenue).
    - A northbound right-turn lane on US 30 would be desirable for storing vehicles during train-crossing events at Columbia Avenue; the need for one exists with or without the presence of a park-and-ride. The presence of the park-and-ride would increase the required right-turn lane length by 1 vehicle (25 feet).

Cost Estimate

Transit center roadways and NE 1st Street improvements: $1,200,000
Bus shelters, bus stop signage, information displays: $22,000
Park-and-ride north of transit center, including NE 1st Street improvements: $820,000
Park-and-ride east of transit center: $372,000 (not including land acquisition)
Lighting for transit center and park-and-rides: $41,000 to $65,000
4 park-and-ride signs: $1,000
Right-turn lane extension: $97,000
Sidewalk repairs assumed to be addressed through stimulus funding.

Comments

According to ODOT, the southbound left-turn lane from US 30 to Columbia Avenue has substandard minimum deceleration and storage lengths; this could be addressed by restriping a portion of the center two-way left-turn lane. ODOT would want the northbound right-turn lane from US 30 to Columbia Avenue lengthened to mitigate for the park-and-ride.

The transit center is not an immediate need, but would provide a permanent supply of park-and-ride spaces to supplement or replace Chinook Plaza, if that lot filled or was no longer available in the future. In addition, as service grows in the future, a transit center would be desirable at a point in time when multiple buses needed to meet to exchange passengers.

Scappoose: Post Office

View looking south

No park-and-ride proposed.
No ped crossing of US 30 required.
Highway milepost: 21.05

Site Description

The stop is located on the west side of US 30, adjacent to the Scappoose Post Office. The stop is only served by southbound buses on the St. Helens–Scappoose flex route loop. A bus stop sign is proposed for the far side of the NW Laurel Street intersection. Land uses on the west side of US 30

are commercial, with residential land uses located farther west. The closest railroad crossings are located approximately 800 feet south and 1,200 feet north. The posted speed on US 30 is 35 mph.

Park-and-Ride

No park-and-ride is proposed for this site.

Existing & Future Bus Service

- St. Helens–Scappoose flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop sign, with bus service information mounted to the pole
    - No-parking zone during bus service hours at the bus stop.
    - A shelter is not recommended, due to likely low passenger volumes and likely short stays at the post office. The proposed City Hall transit center would be located within walking distance.

Cost Estimate

Bus stop pole, bus stop and no-parking signage, and information display: $700

Warren: Warren Baptist Church

View looking southeast

US 30/Church Road:
AM: v/c = 0.09, delay = 11.3 s, LOS B
PM: v/c = 0.12, delay = 17.9 s, LOS C

Highway milepost: 25.48

Site Description

The stop is located in the parking lot on the south side of Warren Baptist Church, which is located in the northwest quadrant of the unsignalized US 30/Church Road intersection. A bus stop sign, bus shelter, and bench are provided at this location. The other land uses in the area consists of farmland

and rural residential. No access across the railroad tracks is available here. The posted speed on US 30 is 50 mph. Northbound buses use the left-turn pocket on US 30 to turn onto Church Road, circulate through the church parking lot, and make a left turn back onto US 30, using the two-way center left-turn lane to make a two-stage left turn if necessary. Southbound buses turn right onto Church Road, using the right-turn lane from US 30, and turn right when re-entering US 30.

Park-and-Ride

The designated park-and-ride consists of approximately 10 parking spaces on the south edge of the parking lot. The church board has previously turned down a request to expand the area used for park-and-ride. For the purposes of the traffic analysis, it was assumed that another 10 parking spaces could become available in the future.

Existing Bus Service

- St. Helens–Portland fixed route (10 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)

Traffic Operations

Assuming an expansion of the park-and-ride by 10 spaces and full utilization of that space, the intersection would continue to operate within ODOT standards (v/c ratio of 0.70 or less) during peak periods. The two-way left-turn lane in the middle of US 30 is available for vehicles to use to make two-stage left turns onto US 30 from Church Road.

Recommended Improvements

- *Bus stop improvements:*
    - Bus service information
- *Parking improvements:*
    - Continue to work with the church to increase the number of parking spaces available for park-and-ride, as demand warrants. Church parking lots are usually compatible with park-and-ride use, as church parking demand typically peaks at different times of the day and week.
    - Install park-and-ride signage (one sign for each direction on US 30 and two signs, one facing each direction on Church Road, at the parking lot entrance).
- *Street improvements:*
    - If an agreement can be worked out with the church to expand park-and-ride capacity (the designated spaces were nearly fully used on the day of the field visit), provide

park-and-ride signage from US 30 to the parking lot entrance (2 signs: one for US 30 southbound prior to Church Road and one on westbound Church Road at the parking lot entrance).

Cost Estimate

Information display case for shelter: $500
4 park-and-ride signs: $1,000

St. Helens: Safeway/RiteAid

View looking southwest

No park & ride expansion proposed.
Access to traffic signal available.
Highway milepost: 27.88

Site Description

This stop is located at the northwest corner of the Safeway/Rite Aid building store in St. Helens. A bus stop sign, bus shelter, and bench are provided at this location. Other land uses along the west side of US 30 are commercial. St. Helens High School is located southwest of the shopping center, while residential neighborhoods are located within walking distance to the west and north. The posted speed on US 30 is 35 mph. Northbound buses make a left turn from the center two-way left-turn lane on US 30 into the shopping center driveway and pick up passengers on the opposite side of the driveway from the bus shelter. Northbound buses exit via the private driveway onto Sykes Road and use the traffic signal at the US 30/Sykes Road intersection to make their left turn on US 30. Southbound buses follow the reverse route.

Park-and-Ride

There are approximately 40 parking spaces available for park-and-ride use in the vicinity of the stop. There is no formal agreement with the property owners as to how many spaces can be used for park-and-ride, and the park-and-ride spaces are not marked.

Existing Bus Service

- St. Helens–Portland fixed route (10 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)
- Vernonia–St. Helens flex route (3 trips/day, 3 days/week)

Recommended Improvements

- *Bus stop improvements:*
    - Bus service information
- *Parking improvements:*
    - Work with the property owner to construct an accessible sidewalk along the driveway from US 30 to the bus stop; the sidewalk would also provide a pedestrian route, currently lacking, from US 30 to the shopping center's two main stores. It is recommended that a formal agreement to use the site as a park-and-ride be developed prior to investing in further on-site improvements.
    - Work with the property owner to construct a shelter and landing pad to serve northbound riders (for example, in the landscaping strip between the driveway and the parking spaces to the north), so passengers do not have to walk into the parking lot driveway when boarding a northbound bus.
- *Street improvements:*
    - Provide park-and-ride signage from US 30 (2 signs, one each direction) at the parking lot entrance.

Cost Estimate

Information display case for the existing shelter: $500
New accessible shelter, bus stop sign, and information display: $8,000
Sidewalk into site, with 5 curb ramps: $36,000
2 park-and-ride signs: $500

Comments

According to ODOT, the northbound left-turn lane and the southbound right-turn lane from US 30 to Sykes Road have substandard minimum deceleration and storage lengths. However, transit activity associated with this bus stop is unlikely to increase traffic demands for these movements.

St. Helens: Ace Hardware

View looking southwest

No park & ride proposed.
Traffic signal at nearest intersection.
Highway milepost: 28.56

Site Description

This stop is located at the north end of the Ace Hardware store in St. Helens. Access to the site is available via unsignalized driveways from US 30 and Columbia Boulevard. The stop is currently served southbound only by the St. Helens–Scappoose flex route. These buses turn right from US 30 onto Columbia Boulevard, turn left to enter the site, and exit the site by turning right from one of the site's driveways onto US 30. A bus shelter and bench are provided, with a sidewalk connection to Columbia Boulevard. Land uses along US 30 and Columbia Boulevard east of US 30 are commercial, with residential neighborhoods located north and west of the site, as well as across the railroad tracks east of US 30 and south of Columbia Boulevard. The posted speed on US 30 is 35 mph.

Park-and-Ride

No park-and-ride is provided. In the past, the property owners have stated that they are not interested in having a park-and-ride at this location.

Existing Bus Service

- St. Helens–Scappoose flex route (6 trips/day)

Future Bus Service

- St. Helens–Scappoose flex route (6 trips/day)
- Vernonia–St. Helens flex route (3 trips/day, 3 days/week)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop sign

- Bus service information

- *Street improvements:*
  - New or reconstructed curb ramps are required at the US 30/Columbia Boulevard intersection. Some curb ramps are missing (e.g., northwest corner); others do not line up with the crosswalk (e.g., southwest corner). A sidewalk connection and accessible pedestrian route across the railroad tracks is needed on the south side of Columbia Boulevard between US 30 and Milton Way.

Cost Estimate

Bus stop sign and information: $600
Sidewalk and 12 new/reconstructed curb ramps: $67,000

Comments

According to ODOT, the northbound left-turn lane has substandard minimum deceleration and storage lengths. However, transit activity associated with this bus stop is in the southbound direction and no park-and-ride activity occurs.

St. Helens: Columbia Commons

View looking east

US 30/Pittsburg Road:
AM: v/c = 0.25, delay = 11.1 s, LOS B
PM: v/c = 0.26, delay = 18.0 s, LOS C

Highway milepost: 29.10

Site Description

The stop is located in the northern portion of the Columbia Commons office center parking lot. The site is accessed via private road connections to US 30 and Pittsburg Road. A bus stop sign, bus shelter, and bench are provided at this location. A sidewalk, without curb ramps, is located on the west side of the private road leading to Pittsburg Road; however, there are no sidewalk facilities along Pittsburg Road that lead to a residential neighborhood to the west. There are no sidewalks along this section of US 30 and no other nearby land uses. The posted speed on US 30 is 40 mph, increasing to 45 mph just north of Pittsburg Road. Northbound buses turn left into office center's

private road using the center two-way left-turn lane on US 30. Northbound buses exit the site via the private road leading to Pittsburg Road and make a left turn onto US 30 from Pittsburg Road, using the center two-way left-turn lane, if necessary, to make a two-stage left turn. Southbound buses follow the reverse route.

Park-and-Ride

There are approximately 30 spaces available for park-and-ride use. There is no formal agreement with the property owners on park-and-ride usage and no designated park-and-ride spaces exist. As tenants have moved into the property, the park-and-ride has moved farther and farther back in the parking lot, and has reached the limit of where it can be moved to. Therefore, it is at risk of being eliminated in the future. However, the proposed park-and-ride at the Stimson site (described in the summary for the next bus stop) would provide replacement spaces, if needed, for the Columbia Commons site, as well as additional capacity to support future ridership growth.

Existing Bus Service

- St. Helens–Portland fixed route (10 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)
- Vernonia–St. Helens flex route (3 trips/day, 3 days/week)

Traffic Operations

If a new park-and-ride is developed at the Stimson site to the north, most park-and-ride activity will come from the west, using Pittsburg Road to access the site. The US 30/Pittsburg Road intersection operates within ODOT standards (v/c ratio of 0.70 or less) during peak periods. As the Columbia Commons driveway onto US 30 has lower volumes than does Pittsburg Road, the driveway would therefore also operate within ODOT standards.

Recommended Improvements

- *Bus stop improvements:*
    - Bus service information
    - Because the bus shelter is located flush with the parking lot (i.e., not behind a curb), bollards are recommended at the exposed corners of the shelter to protect it from errant vehicles.
- *Parking improvements:*

- If a transit center is constructed at the Stimson site, parking demand at this location will likely decrease in the short term. In the longer term, work with the property owners to retain some park-and-ride spaces to serve residents of St. Helens living on the west side of US 30.

- *Street improvements:*
  - Provide park-and-ride signage from US 30 (2 signs, one for each direction, located at the Columbia Commons driveway entrance). Provide one sign for eastbound Pittsburg Road.

Cost Estimate

Information panel for bus shelter: $500
3 bollards: $2,400
3 park-and-ride signs: $750

Comments

According to ODOT, the northbound left-turn lane and the southbound right-turn lane from US 30 to Pittsburg Road have substandard minimum deceleration and storage lengths. However, transit activity associated with this bus stop is unlikely to increase traffic demands for these movements.

St. Helens: Stimson Site


View looking east

US 30/Deer Island Road:
AM: v/c = 0.50, delay = 20.3 s, LOS C
PM: v/c = 0.49, delay = 19.9 s, LOS B

Highway milepost: 29.42

Site Description

This site is located at the former Stimson lumber yard east of Oregon Street and south of Deer Island Road. The site is proposed to be redeveloped with the following uses: bus transfer center, park-and-ride, bus maintenance and storage facility, transit administration building, and Oregon State Police office. A site has also been reserved for a potential future building in the corner of the

site adjacent to the Oregon Street/Deer Island Road intersection. The site would be the primary transfer point for Columbia County bus routes. The current site concept is shown below in Figure 23. Access to the site from US 30 is via the signalized intersection at Deer Island Road and turn lanes are available for the bus movements (northbound right turn and southbound left turn). Land uses immediately adjacent to US 30 and Oregon Street are primarily industrial, but residential neighborhoods are located to the south and east. The posted speed on US 30 at Deer Island Road is 45 mph, increasing to 55 mph to the north.

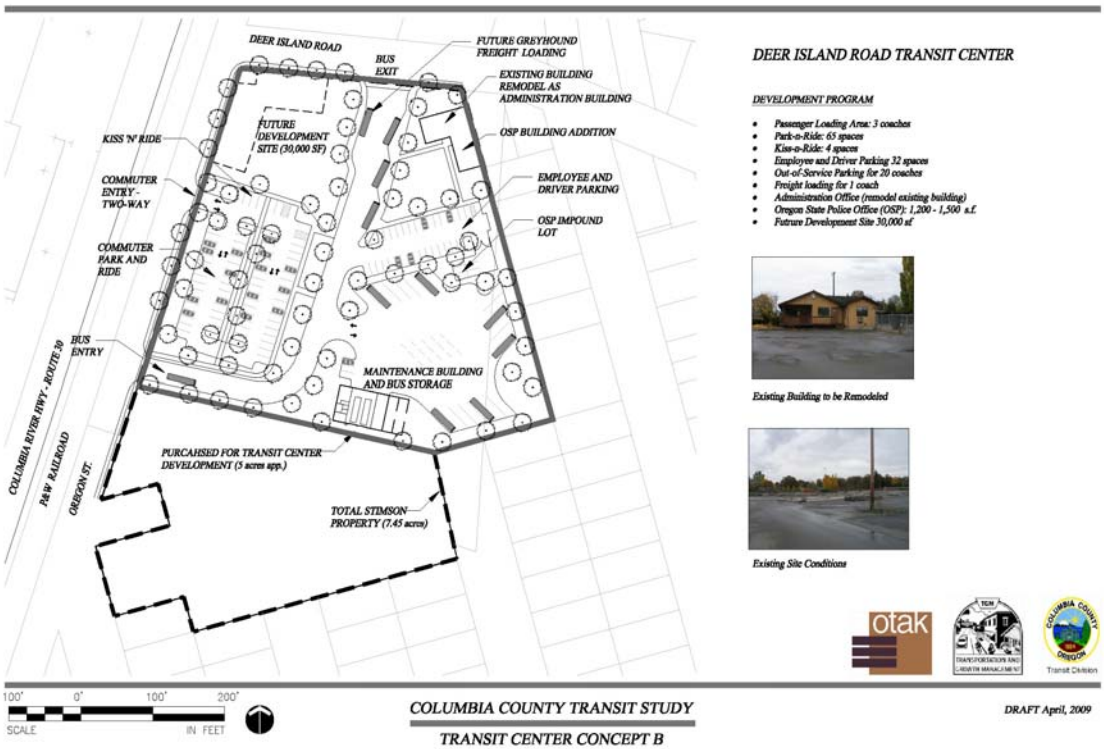


Figure 23 Proposed St. Helens Stimson Site

Park-and-Ride

Approximately 65 park-and-ride spaces would be developed at the site.

Existing Bus Service

- None

Future Bus Service

- St. Helens–Portland fixed route (12 trips/day)
- St. Helens–PCC-Rock Creek fixed route (6 trips/day)
- St. Helens–Scappoose flex route (6 trips/day)
- Rainier–St. Helens flex route (6 trips/day)
- Vernonia–St. Helens flex route (3 trips/day, 3 days/week)

Traffic Operations

Because of the presence of the Columbia Commons park-and-ride to the south, most park-and-riders would arrive from the east (not passing through the US 30/Deer Island Road intersection) or the from the north. With full utilization of the park-and-ride, the US 30/Deer Island Road intersection would operate within ODOT standards (v/c ratio of 0.70 or less). In the event of a train crossing occurring within 10 minutes of a fixed-route bus departure from the transit center during the weekday a.m. peak hour, the presence of the park-and-ride would add an average of 7 vehicles to the southbound left-turn queue. These vehicles would stack in the two-way left-turn lane in the middle of US 30 while waiting for the train to clear the crossing.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signs (3—one for each bus bay)
    - Accessible shelters and benches (3—one for each bus bay)
    - Off-street bus bays (3) with concrete pads
    - Bus service information
    - On-site lighting
- *Parking improvements:*
    - Construct a 65-space park-and-ride lot.
- *Street improvements:*
    - Based on correspondence from ODOT Rail, the spur track leading into the site would need to be removed and its associated railroad crossing equipment at Deer Island Road relocated to align with the mainline crossing.
    - Frontage improvements (street widening, sidewalks) on Deer Island Road and Oregon Street to meet City and County standards.
    - Provide park-and-ride signage from US 30 (4 signs, one for each direction on US 30 prior to Deer Island Road, one on Deer Island Road eastbound at Oregon Street, and one on Oregon Street at the parking lot entrance).
    - Transit signal priority provision for the US 30/Deer Island Road traffic signal to facilitate the movement of buses leaving the transit center.
    - Lengthen the southbound left turn lane from US 30 to Deer Island Road by restriping a portion of the center two-way left-turn lane.

Cost Estimate

On-site transit center improvements, including buildings and park-and-ride: $2,344,800
Frontage improvements on Deer Island Road and Oregon Street: $162,000
4 park-and-ride signs: $1,000

Restripe southbound left-turn lane on US 30: $10,400
Transit signal priority installation: $42,000

Comments

According to ODOT, the southbound left-turn lane from US 30 to Deer Island Road have substandard minimum deceleration and storage lengths. This issue could be addressed by restriping the center two-way left-turn lane north of the intersection to create more room for the southbound left-turn lane. If site construction is delayed past 2010, or if an application is submitted to construct the future building in the northwest corner of the site, ODOT will want an updated traffic study conducted for the site.

Columbia City: City Hall

View looking north

US 30/L Street:
AM: v/c = 0.14, delay = 9.7 s, LOS A
PM: v/c = 0.12, delay = 16.5 s, LOS C

Highway milepost: 30.53

Site Description

The stop is located at Columbia City's City Hall, which is located at the intersection of 2nd Street and I Street. The location is central to the portion of Columbia City east of US 30 and the railroad tracks. Southbound buses access the stop by making a left turn from US 30 at the traffic signal at E Street and return to US 30 by using the L Street railroad overcrossing and making a left-turn at this stop-controlled intersection, using the center two-way left-turn lane on US 30 to make a two-stage left-turn, if necessary. Northbound buses go in the opposite direction, utilizing the right-turn lane from US 30 at L Street. The posted speed on US 30 is 50 mph. No sidewalks are located at this site, similar to conditions in all but the newest portions of Columbia City. A non-accessible bench is located under an overhang in the City Hall building, and the library across the street also has outdoor benches.

Park-and-Ride

No formal park-and-ride is proposed for this site. However, on-street parking with no time limit is available in the area.

Existing & Future Bus Service

- Rainier–St. Helens–Scappoose flex route (6 trips/day)

Traffic Operations

Southbound buses leave Columbia City via the railroad overcrossing and make a left turn onto US 30 at the unsignalized US 30/L Street intersection. A center two-way left-turn lane is available in the middle of US 30 for making two-stage left turns at this location, and the intersection operates within ODOT standards (v/c ratio of 0.70 or less). The Lower Columbia River Rail Corridor Study found that the traffic signal at the US 30/E Street intersection operated acceptably, with v/c ratios of 0.39 and 0.41 in the weekday a.m. and p.m. peak hours, respectively.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage (2 signs: northbound and southbound)
    - Bus service information
    - A southbound bus shelter would be desirable, but hard to place, as library parking backs directly onto 2nd Street.

Cost Estimate

Bus stop poles, signs, and service information: $1,200
Accessible bus shelter: $7,500

Comments

According to ODOT, the northbound right-turn lane and southbound left-turn lane from US 30 to L Street have substandard minimum deceleration and storage lengths. However, no increase in traffic volumes is anticipated as a result of future transit activity.

Columbia City: MiniMart

View looking east

No park & ride proposed.
Highway milepost: 31.31

Site Description

The stop is located in the parking lot of the Mini Mart in the northwest quadrant of the unsignalized US 30/A Street intersection. Nearby land uses are multi-family residential, with newer single-family residential to the west. The street network in the area provides connections to the remainder of Columbia City west of US 30. The posted speed on US 30 is 50 mph. Northbound buses turn left from US 30, using the center two-way left-turn lane on the highway, circulate through the mini mart, and turn left back onto the highway, using the two-way left-turn lane to make a two-stage left turn, if necessary. Southbound buses follow the reverse route and use the southbound right-turn lane from US 30.

Park-and-Ride

No park-and-ride is proposed for this site and no on-street parking is available in the area.

Existing & Future Bus Service

- Rainier–St. Helens flex route (6 trips/day)

Traffic Operations

Traffic counts were not conducted at this intersection. A center two-way left-turn lane is available for making two-stage left turns, and the conflicting volume on US 30 is significantly lower than at L Street (11,100 average annual daily traffic at the north city limits of Columbia City, versus 15,600 at the south city limits). Given that US 30/L Street was found to operate well within ODOT standards, no operating issues are anticipated at US 30/A Street.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information
    - A bus shelter would be desirable, if permission can be obtained to place one on the site.

Cost Estimate

Bus stop pole, sign, and information: $600
Bus shelter: $7,500

Comments

According to ODOT, the northbound left-turn lane and southbound right-turn lane from US 30 to A Street have substandard minimum deceleration and storage lengths. However, no increase in traffic volumes is anticipated as a result of future transit activity.

Deer Island: Deer Island Store

View looking north

US 30/Canaan Road:
AM: v/c = 0.04, delay = 12.6 s, LOS B
PM: v/c = 0.17, delay = 17.7 s, LOS C

Highway milepost: 34.19

Site Description

This stop is located in the parking lot of the Deer Island Store, in the northwest quadrant of the US 30/Canaan Road intersection. Land uses are concentrated on the west side of US 30, with single-family residential south of Canaan Road and mobile homes north of Canaan Road. Farther west, Canaan Road serves a number of rural residential properties. The posted speed on US 30 is 55 mph. Northbound buses make a left turn from US 30, using the left-turn pocket, circulate through the store's parking lot, and make a left turn back onto the highway from the store's driveway. Southbound buses operate in the reverse direction.

Park-and-Ride

A small (e.g., 10-space) park-and-ride could be developed in the highway right-of-way between US 30 and the frontage road, with the parking stalls backing onto the low-volume frontage road. The site would require a lease from ODOT for use of the property.

Existing & Future Bus Service

- Rainier–St. Helens flex route (6 trips/day)

Traffic Operations

With full utilization of the park-and-ride, the US 30/Canaan Road would operate within ODOT standards (v/c ratio of 0.70 or less) during the weekday a.m. and p.m. peak hours.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information
    - A bus shelter would be desirable, if permission can be obtained from the store owner. Because of the existence of a left-turn lane from northbound US 30 to Canaan Road and the store, the store is preferred over the park-and-ride location as the actual bus stop location.
- *Parking improvements:*
    - Construct head-in parking spaces accessing the frontage road within the highway right-of-way between the frontage road and US 30, to the south of the school. There is not enough room to construct a full parking lot, but given the low traffic volume on the frontage road and the low turnover of the parking spaces, head-in spaces would be sufficient and would use the available land the most efficiently.
- *Street improvements:*
    - Park-and-ride signage (3 signs: one for southbound US 30, and one for each direction of Canaan Road at the frontage road).

Cost Estimate

Bus stop pole, sign, and information display: $600
Accessible bus shelter: $7,500
Park-and-ride: $27,000
3 park-and-ride signs: $750

Comments

According to ODOT, the northbound left-turn lane and southbound right-turn lane from US 30 to Canaan Road have substandard minimum deceleration and storage lengths. However, only a

minimal increase in traffic volumes is anticipated as a result of future transit activity (most park-and-ride trips are expected to arrive from the west via Canaan Road).

Goble: Goble Tavern/Goble Marina

View looking south

No park-and-ride proposed.
Highway milepost: 40.47

Site Description

FlexRoute stops are currently located northbound at the entrance to the Goble Marina and southbound at the Goble Tavern. The residential portion of Goble is located along Nicolai Road west of US 30; therefore, passengers must walk along or across US 30 to reach the existing bus stops. The highway here has a posted speed of 55 mph and average annual daily traffic volumes of 8,500 vehicles per day. Northbound buses turn right from the highway into the marina, turn around in the parking lot, and turn right back onto the highway, crossing the railroad tracks twice in the process. Southbound buses turn right off the highway into the tavern's northern driveway and re-enter via the tavern's southern driveway.

Park-and-Ride

No park-and-ride is proposed at this location. Although the gravel area between US 30 and the railroad tracks, north of Nicolai Road, appears to be used for parking (not necessarily transit-related), it is posted as no trespassing/railroad right-of-way.

Existing & Future Bus Service

- Rainier–St. Helens flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage

  - Bus service information
  - No shelter is recommended, unless future passenger volumes warrant one.

- *Street improvements:*
  - Install guardrail between Goble Road and the tavern, to help protect pedestrians walking to the southbound bus stop. If drainage considerations and the proximity of the bluff permit, widen the paved portion of the shoulder by up to 5 feet (including the space used by the guardrail).
  - Provide intersection illumination.
  - Because the posted speed on US 30 is greater than 35 mph, the *Oregon Traffic Manual* does not allow the use of marked pedestrian crosswalks at this location.

Cost Estimate

Bus stop poles, signs, and information: $1,200
Guardrail: $31,000
Shoulder widening: $48,000
Intersection illumination: $15,000

Comments

Several alternatives were considered for this site.

Several alternatives were considered for this site.

- A stop on Nicolai Road to the west of US 30 was considered, but rejected, as there is no good place for buses to turn around and the alternate route back to US 30, Nicolai Cutoff Road, is narrow.
- A bus pullout on the west side of the highway for southbound buses was considered, but rejected, due to a lack of available width for the pullout and a pathway connection (there is a rock bluff on the west side of the highway).
- Constructing left-turn lanes from US 30 at Nicolai Road. This would cost approximately $1,175,000. ODOT believes approval for the roadway widening would be doubtful, because of the need to acquire railroad right-of-way and because storage space between US 30 and the railroad crossing would be reduced. However, the intersection meets ODOT's left-turn warrants, based on the 20 northbound left turns during the weekday p.m. peak hour and the combined northbound and southbound traffic volumes.
- A two-directional bus pullout on the east side of the highway north of Nicolai Road was also considered. This would be more costly than the left-turn lane option and would have the same approval issues.
- In the short term, providing a guardrail behind the existing paved shoulder between Nicolai Road and the tavern on the west side of US 30 to 10 feet, to provide greater protection of pedestrians from vehicles, is recommended. If drainage considerations and the proximity of

the bluff permit, widening the shoulder by up to 5 feet would provide a paved pathway for pedestrians to access the southbound bus stop at the tavern.

Prescott

No park & ride proposed.
Highway milepost: 43.12

Site Description

Prescott is served on a request-only basis. The bus stop is located just east of the railroad tracks, where a large intersection provides a bus turnaround opportunity. A wooden shelter, of the kind often used for school bus riders, is located at this intersection. The posted speed on US 30 at Graham Road is 55 mph and a southbound left-turn pocket is provided at the intersection.

Park-and-Ride

No park-and-ride is proposed at this location.

Existing & Future Bus Service

- Rainier–St. Helens flex route (6 trips/day, stop served on request)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage, with a telephone number provided on the sign for making stop requests.
    - Bus service information

Cost Estimate

Bus stop pole, sign, and information: $600

Comments

According to ODOT, the southbound right-turn lane from US 30 to Blakely Road has substandard minimum deceleration and storage lengths. However, no increase in traffic volumes is anticipated as a result of future transit activity.

Lindberg: Lindberg Grocery

No park & ride proposed.
Highway milepost: 45.12

Site Description

Northbound buses (and the first southbound trip of the day) stop at the Lindberg Grocery, using the paved area between the building and the highway's fog line to stop. Residential development in Lindberg is very spread out, with scattered homes located east of the highway and a mobile home park located about 0.6 miles south. Lindberg Road and private roads provide some alternative routes to walking on the highway, but nearly all passengers would need to walk along the highway for some distance to reach the stop. Paved shoulders are provided on both sides of the highway; the highway's posted speed is 50 mph.

Park-and-Ride

No park-and-ride is proposed at this location.

Existing & Future Bus Service

- Rainier–St. Helens flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage (will require permission from the store)

- Bus service information
- No shelter is recommended, unless future passenger volumes warrant one.

Cost Estimate

Bus stop pole, sign, and information: $600

Rainier: Rainier Transit Center (old Estby Station)

View looking north

Access to traffic signal available.
Highway milepost: 47.03

Site Description

This site is a former gas station that has been converted into a small transit center, office, and vehicle storage facility for Columbia County Rider. The site is located in the center of Rainier, at the intersection of US 30 (West B Street) and W 2nd Street. The site is adjacent to a grocery store and other land uses in the area are primarily commercial. A bus stop wayfinding sign is located on US 30 at the site. There is no clear separation between the pedestrian sidewalk area and the remainder of the site. A traffic signal is located one block east of the site. Southbound buses enter the site by making a left turn from the highway into the site's northern driveway, using the center two-way left-turn lane and re-enter by making a left turn from the site's southern driveway. Northbound buses follow the opposite route. The posted speed on US 30 is 30 mph.

Park-and-Ride

Park-and-ride is possible at the site, although the spaces are not particularly well-marked. The parking area adjacent to the grocery store's loading dock appears to be unused, and could potentially become an expansion area for park-and-ride, if demand warranted and if an agreement could be reached with the property owner.

Existing Bus Service

- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)

- Rainier–St. Helens flex route (6 trips/day)

Future Bus Service

- Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 5 days/week)
- Rainier–St. Helens flex route (6 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Facility improvements to make the site look more like a bus facility and less like a gas station: for example, placing signage on the canopy, removing the gas pumps, and repainting the canopy edge in Columbia County Rider colors.
    - Bus service information
- *Parking improvements:*
    - Restripe the parking spaces on site.
    - If demand warrants, negotiate with the adjacent property owner for shared park-and-ride use in the parking area behind the grocery store's loading dock.
- *Street improvements:*
    - Replace the on-street bus stop signage with park-and-ride signage.
    - A comprehensive "Main Street" improvement project to improve sidewalk facilities, improve pedestrian crossing opportunities, relocate utility poles, improve access management, and improve the streetscape would be preferable to spot pedestrian improvements associated with the transit center. ODOT has conducted several studies over the last decade to make these kinds of improvements to US 30, but no community consensus has yet been achieved.

Cost Estimate

Facility cosmetic and signage improvements: $14,000
Parking lot striping: $5,000
2 park-and-ride signs: $500

Comments

Because of the change of use of the site from a gas station to a transit facility, ODOT wants the County to submit an application for new highway access permits for the site. ODOT will likely request that the site's southern driveway onto US 30 be closed. Buses would still be able to circulate through the site via the northern US 30 driveway and the site's West 2nd Street driveway. ODOT will consider deferring frontage improvements to the City of Rainier's US 30 (B Street) Bike and Pedestrian Path project.

Rainier: Rainier Senior Center

View looking east

No park & ride proposed.
Highway milepost: 47.35

Site Description

The Rainier Senior Center is located a few blocks off of US 30. Both bus routes serving Rainier loop through the Senior Center driveway. Multi-family residential units are located west of the stop and Rainier City Park is located east. Southbound buses turn left from US 30 onto Veterans Way (W 6th Street), using the left-turn lane, cross the railroad tracks, turn left onto West A Street, and then make two right turns into the senior center. Southbound buses follow the reverse route back to US 30 and make a left turn onto the highway. Northbound buses follow the same route, except for right turns on and off of US 30. The posted speed on US 30 is 30 mph, increasing to 55 mph northwest of Veterans Way.

Park-and-Ride

No formal park-and-ride is proposed for this site. However, on-street parking with no time limit is available in the area.

Existing Bus Service

- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)
- Rainier–St. Helens flex route (6 trips/day)

Future Bus Service

- Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 5 days/week)
- Rainier–St. Helens flex route (6 trips/day)

Traffic Operations

The Lower Columbia River Rail Corridor Study found that the US 30/Veterans Way intersection operated within ODOT standards (v/c ratios of 0.12 and 0.13 during the weekday a.m. and p.m. peak hours, respectively, compared to a standard of 0.80).

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop sign (will require permission of senior center)
    - Bus service information

Cost Estimate

Bus stop pole, sign, and information: $600

Alston: Alston Store

View looking west

Further intersection improvements on US 30 unlikely.
Highway milepost: 52.36

Site Description

Buses stop at the Alston Store, located just off US 30 at the skewed intersection of Alston-Mayger Road (Old Rainier Road), Alston Road, and Wonderly Road. The Alston's Corner Assembly of God Church is located on the south side of the intersection. Other land uses in the area are primarily scattered single-family residential. A mobile home park is located south of US 30. No sidewalks exist in the area, except along the church's street frontage. Westbound buses turn right from US 30 at Old Rainier Road, stop at the store, and re-enter US 30 by turning right at Alston Road. Eastbound buses turn left at Alston-Mayger Road, using the left-turn pocket, stop at the store, and re-enter US 30 by turning left at Alston Road. The posted speed on US 30 is 55 mph.

Park-and-Ride

No park-and-ride currently exists. The church's parking lot is a potential park-and-ride site, if an agreement can be reached with the church for such a use.

Existing Bus Service

- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)

Future Bus Service

- Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 5 days/week)

Traffic Operations

Traffic counts were not conducted at the US 30/Alston-Mayger Road intersection, as it was felt that this intersection is unlikely to be improved further from a capacity standpoint (left-turn lanes are provided in both directions on US 30) and because the side-street approaches have been aligned to intersect US 30 at right angles. Similarly, traffic counts were not conducted at the US 30/Alston Road intersection, because road improvements were unlikely due to the presence of a bridge on US 30 just west of the intersection. No operations issues were identified at this location during the course of the study.

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information
    - Bus shelter, if a park-and-ride is provided in the future
- *Parking improvements:*
    - Work with the church to develop a park-and-ride at this location.
- *Street improvements:*
    - If a park-and-ride agreement is reached, provide park-and-ride signage on westbound US 30 prior to Alston-Maygar Road, and in all directions at the church parking lot entrance.
    - If the Alston-Maygar Road/Alston Road/Wonderly Road intersection is realigned in the future, provide sufficient pavement width for buses to be able to stop outside the traffic lanes. Provide a sidewalk or, at a minimum, a paved landing pad at the new stop locations.

Cost Estimate

Bus stop pole, sign, and information: $600
Accessible bus shelter: $7,500
5 park-and-ride signs: $1,250

Comments

According to ODOT, the eastbound left-turn lane and westbound right-turn lane from US 30 to Alston-Mayger Road has substandard minimum deceleration and storage lengths. However, no increase in traffic volumes for these movements is anticipated as a result of future transit activity (park-and-ride trips would be expected to either come from north of US 30 or to cross US 30 at this intersection, arriving from the south).

Clatskanie: Clatskanie Transit Center (old Johnson Oil)

View looking northeast

Highway milepost: 61.35

Site Description

This site is a former gas station that has been converted into a small transit center, office, and vehicle storage facility for Columbia County Rider. The site is located along US 30 toward the east end of Clatskanie, about 200 feet west of True Haak Street. Other land uses along US 30 are primarily commercial; land uses farther south of US 30 west of the site are residential. A traffic signal is located 600 feet west of the site and a continuous sidewalk exists between the traffic signal and the site. Eastbound buses enter the site by turning left into the site's western driveway (no center two-way left-turn lane is provided) and exit the site by turning left from the site's eastern driveway. Westbound buses follow the reverse route. The posted speed on US 30 is 30 mph.

Park-and-Ride

The site could be developed as a small park-and-ride if the remainder of the site was paved and parking spaces were striped.

Existing Bus Service

- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)

Future Bus Service

- Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 5 days/week)
- Clatskanie–Astoria fixed route (2 trips/day)
- Vernonia–Clatskanie flex route (3 trips/day, 2 days/week)

Traffic Operations

Given that the higher-volume US 30/Bel Air Drive intersection to the west (see the next stop description) is forecasted to operate acceptably, no operations issues are anticipated at this location.

Recommended Improvements

- *Bus stop improvements:*
    - Facility improvements to make the site look more like a bus facility and less like a gas station: for example, placing signage on the canopy and repainting the canopy edge in Columbia County Rider colors.
    - Bus service information
- *Parking improvements:*
    - Pave the unpaved portions of the site and stripe parking spaces for park-and-ride.
- *Street improvements:*
    - Provide park-and-ride signage on US 30 at the site, one sign in each direction.
    - A comprehensive "Main Street" improvement project to improve pedestrian crossing opportunities, improve access management, and improve the streetscape would be preferable to spot pedestrian improvements associated with the transit center. Changing the roadway cross-section from four lanes to three lanes plus bicycle lanes would improve pedestrian crossing opportunities (providing opportunities to construct pedestrian refuges in the median) and provide an opportunity to develop a center two-way left-turn lane between intersections so that turning traffic does not delay through traffic.

Cost Estimate

Facility cosmetic and signage improvements: $17,000
Pave and stripe parking area: $169,000
2 park-and-ride signs: $1,000

Comments

Because of the change of use of the site from a gas station to a transit facility, ODOT wants the County to submit an application for new highway access permits for the site. Because of the need for buses to circulate through the site, both site access points will continue to be needed in the future for the site to function.

Clatskanie: Clatskanie Safeway

View looking west

US 30/Bel Air Drive:
AM: v/c = 0.13, delay = 15.1 s, LOS C
PM: v/c = 0.14, delay = 28.4 s, LOS D

Highway milepost: 61.61

Site Description

This bus stop is located in the eastern corner of the Safeway shopping center parking lot, along the southeast side of US 30 between Bel Air Drive and Highway 47. A marked crosswalk across US 30, with flashing beacons, is located at Bel Air Drive, and a signalized intersection is located approximately 800 feet east. Sidewalks are provided along streets in the vicinity of the stop. Westbound buses enter the site by turning left at Bel Air Drive, using the center two-way left-turn lane and turn right into the parking lot. Westbound buses exit the site by making a left turn from the site's US 30 driveway, using the two-way left-turn lane, if necessary, to make a two-stage left turn. Eastbound buses follow the reverse route. The posted speed on US 30 is 30 mph.

Park-and-Ride

About 25 parking spaces are located at the outer ends of the aisles in this portion of the lot. There is no formal agreement on park-and-ride use, and no spaces are marked for park-and-ride.

Traffic Operations

With full utilization of the park-and-ride spaces, the US 30/Bel Air Drive intersection is forecast to operate within ODOT standards (v/c ratio of 0.80 or less). Vehicles making left turns from Bel Air Drive will experience delays approaching half a minute per vehicle on average, though.

Existing Bus Service

- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)

Future Bus Service

- Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 5 days/week)

- Clatskanie–Astoria fixed route (2 trips/day)
- Vernonia–Clatskanie flex route (3 trips/day, 2 days/week)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information
    - Bus shelter, with a connection to the public street sidewalk, if permission can be obtained to install one.
- *Parking improvements:*
    - Unless the site's park-and-ride usage increases to the point where the site's owners feel it is interfering with shopping center parking, there is no need to mark specific park-and-ride spaces.
- *Street improvements:*
    - Provide park-and-ride signage on US 30 at the site, one sign in each direction, and one at the parking lot entrance from Bel Air Drive.
    - A comprehensive "Main Street" improvement project to improve pedestrian crossing opportunities, improve access management, and improve the streetscape would be preferable to spot pedestrian improvements associated with the park-and-ride. Narrowing the roadway cross-section from five lanes to three lanes plus bicycle lanes would improve pedestrian crossing opportunities (providing opportunities to construct pedestrian refuges in the median), while retaining the center two-way left-turn lane.

Cost Estimate

Bus stop pole, sign, and information: $600
Accessible bus shelter: $7,500
3 park-and-ride signs: $750

Marshland

No park & ride proposed.
Highway milepost: 65.99

Site Description

This proposed bus stop would be located at the eastern intersection of US 30 and Marshland Road, adjacent to the community of Marshland. The stop would consist of eastbound and westbound stops on the near sides of the intersection. The posted speed on the highway is 55 mph and the annual average daily traffic is 7,200 vehicles per day.

Park-and-Ride

No park-and-ride is proposed for this location and no on-street parking is available.

Existing Bus Service

- No service

Future Bus Service

- Clatskanie–Astoria fixed route (2 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information
- *Street improvements:*

- Pave the gravel shoulder on the near sides of the intersection, to provide a total of 12 feet of paved width (including the existing shoulder), relocating reflectors and the eastbound Mile 66 milepost as needed. Provide paved landing pads.
- Provide intersection illumination.
- Because the posted speed on the highway is greater than 35 mph, the *Oregon Traffic Manual* does not allow the use of marked pedestrian crosswalks at this location.

Cost Estimate

Bus stop poles, signage, and information: $1,200
Shoulder widening and landing pads: $33,000
Intersection illumination: $15,000

Comments

ODOT would normally desire rural bus stops to be on the far sides of the intersection. However, constructing bus pullouts on the far sides of the intersection would involve grading and drainage work and possible right-of-way acquisition, according to ODOT. The Lower Columbia River Rail Corridor Study counted 2 westbound and 4 eastbound right-turns at this intersection during the weekday p.m. peak hour, so situations where a right-turning vehicle would come along while a bus was stopped on the near side of the intersection would be rare.

The shoulder can be used to start a right turn, based on the broken-stripe fog line; however, full-width right-turn lanes are not currently provided. ODOT notes that the left-turn lane storage and deceleration lengths are currently substandard; however, transit activity would not add traffic volumes to these movements.

Woodson

No park & ride proposed.
Highway milepost: 67.95

Site Description

This proposed bus stop would be located at the intersection of US 30 and Woodson Road, adjacent to the community of Woodland. The stop would consist of eastbound and westbound pull-outs on the far and near sides (i.e., the east side) of the intersection, respectively. The posted speed on the highway is 55 mph and the annual average daily traffic is 7,200 vehicles per day. Flashing intersection beacons and intersection illumination are provided.

Park-and-Ride

No park-and-ride is proposed for this location and no on-street parking is available.

Existing Bus Service

- No service

Future Bus Service

- Clatskanie–Astoria fixed route (2 trips/day)

Recommended Improvements

- *Bus stop improvements:*
    - Bus stop signage
    - Bus service information

- *Street improvements:*
    - Pave the gravel shoulders east of the intersection, to provide a total of 12 feet of paved width (including the existing shoulder), relocating signs as needed. Provide paved landing pads (easements may be required).
    - Because the posted speed on the highway is greater than 35 mph, the *Oregon Traffic Manual* does not allow the use of marked pedestrian crosswalks at this location.

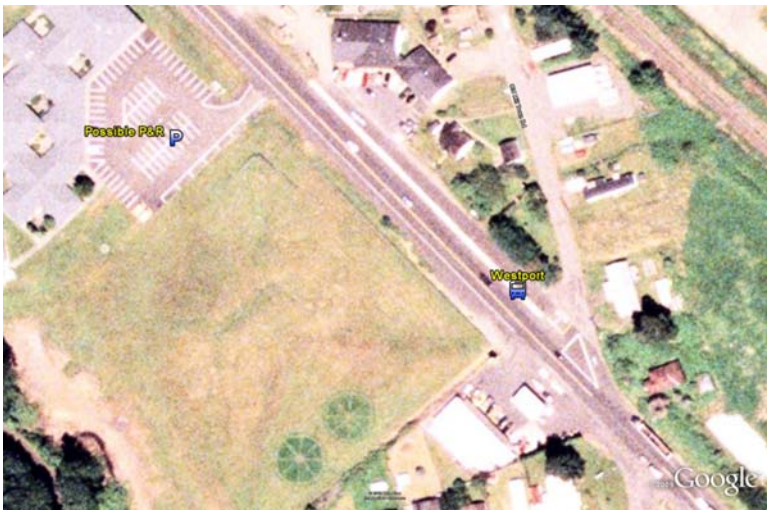
Cost Estimate

Bus stop poles, signage, and information: $1,200
Shoulder widening and landing pads: $33,000

Comments

ODOT would normally desire rural bus stops to be on the far sides of the intersection. However, side slopes are more gentle east of the intersection, resulting in the recommendation for a near-side westbound bus stop. The Lower Columbia River Rail Corridor Study counted 5 westbound right-turns at this intersection during the weekday p.m. peak hour, so situations where a right-turning vehicle would come along while a bus was stopped on the near side of the intersection would be rare. No right-turn lane is provided, so right-turning vehicles would normally start their turn from the travel lane.

Westport




View looking west

US 30/Old Mill Town Road:
AM: v/c = 0.06, delay = 15.6 s, LOS C
PM: v/c = 0.08, delay = 16.3 s, LOS C

Highway milepost: 70.40

Site Description

This bus stop is located at the intersection of US 30 and Old Mill Town Road. A bus stop sign is located adjacent to the sidewalk between westbound US 30 and the frontage road. A wide shoulder—often used for truck parking—is provided on the east side of the highway. The posted

speed on the highway is 40 mph and the annual average daily traffic is 8,100 vehicles per day. This stop is currently the end of the line for both the Columbia County and Sunset Empire routes. Columbia County buses enter the frontage road on the north side of the highway and make a left turn back onto the highway at the west end of the frontage road to turn around. Sunset Empire buses turn left at Old Mill Town Road and immediately left again into the frontage road to turn around. If Sunset Empire takes over this section of the route in the future, buses would simply pull off the highway (onto the frontage road westbound and the wide shoulder eastbound) and would not turn around.

Park-and-Ride

The parking lot of the Westport Community Church is located nearby on the south side of US 30, and could be used as a park-and-ride, if an agreement could be reached with the church.

Existing Bus Service

- Westport–Astoria fixed route (2 trips/day, 3 days/week)
- Westport–Clatskanie–Rainier–Longview/Kelso fixed route (4 trips/day, 3 days/week)

Future Bus Service

- Clatskanie–Astoria fixed route (2 trips/day, 5 days/week)

Traffic Operations

With full utilization of the park-and-ride, the US 30/Old Mill Town Road is forecast to operate within ODOT standards (v/c ratio of 0.75 or less).

Recommended Improvements

- *Bus stop improvements:*
    - Provide Sunset Empire bus stop signage
    - Bus service information
    - Bus shelter, if a park-and-ride is developed, and an easement can be obtained
- *Parking improvements:*
    - Work with the church to use their parking lot as a park-and-ride.
- *Street improvements:*
    - If the church lot is used as a park-and-ride in the future, widen the shoulder on the south side of the highway to 8 feet (where not already at least 8 feet) between the church lot and the eastbound bus stop. A sidewalk already exists between US 30 and the north-side frontage road up to the point where the frontage road rejoins US 30 opposite the church driveway.
    - Because the posted speed on the highway is greater than 35 mph, the *Oregon Traffic Manual* does not allow the use of marked pedestrian crosswalks at this location.

Cost Estimate

New bus stop poles, signage, and information displays: $1,200
Accessible bus shelter: $7,500
2 park-and-ride signs: $500

Comments

ODOT notes that the westbound right-turn lane has substandard minimum storage and deceleration lengths. However, fewer buses would make this right turn in the future.

BUS STOP EVALUATION

Cost Summary

Table 30 summarizes the costs estimated for each bus stop location.

Table 30
Columbia County Transit Stop Cost Estimates

Community	Location	Cost Estimate
Scappoose	Fred Meyer	$8,100
Scappoose	Chinook Plaza	$16,300
Scappoose	City Hall	$1.5 to $2.0 million
Scappoose	Post Office	$700
Warren	Baptist Church	$1,500
St. Helens	Safeway	$45,000
St. Helens	Ace Hardware	$68,000
St. Helens	Columbia Commons	$3,650
St. Helens	Stimson site	$2,512,000
Columbia City	City Hall	$8,700
Columbia City	Mini Mart	$8,100
Deer Island	Deer Island Store	$36,000
Goble	Tavern (SB)/Marina (NB)	$48,000 to $96,000
Prescott	Blakely Road	$600
Lindberg	Lindberg Store	$600
Rainier	Estby station	$19,500
Rainier	Senior Center	$600
Allston	Alston Store	$9,400
Clatskanie	Johnson Oil	$187,000
Clatskanie	Safeway	$8,900
Marshland	Marshland Road (east jct.)	$50,000
Woodson	Woodson Road	$34,000
Westport	Old Mill Town Road	$8,800

Facilities Evaluation Matrix

Each bus stop location was evaluated based on the criteria given in the Facilities Evaluation Matrix described in *Section 1, Plans, Goals, and Policies*. The Evaluation Matrix includes 16 criteria, each of which is given a Tier 1, Tier 2, or Tier 3 rating, where Tier 1 is the highest rating. Table 31 summarizes the Evaluation Matrix criteria and method for determining the tier ratings.

Table 31
Facilities Evaluation Matrix

Criterion	Tier 1	Tier 2	Tier 3
Park-and-ride capacity	> 40 spaces	10- 40 spaces	< 10 spaces
Site ownership	Public	Private, with compatible use	Private, with conflicting use
Park-and-ride expandability	Expansion opportunity on-site or on adjacent property	Potential expansion, subject to negotiation with property owners	No potential expansion
Bus diversion to access stop	No diversion from US 30	< 2 minutes diversion	> 2 minutes diversion
Railroad crossing delay potential	No crossing required	Alternate grade-separated route available	At-grade crossing required
Bus circulation (on-streets locations)	Site meets design standards	Requires work to meet design standards	Constraints to completing work to meet design standards,
Bus circulation (off-street locations)	No parking/pedestrian conflicts, speed bumps	One of the above issues	Two or more of the above issues
Bus stop shelter	Suitable location available	Location available, but shelter not able to orient toward bus	No space for shelter
ADA requirements	Accessible route to site and shelter location exist	Accessible route to site exists	Accessible route needed
US 30 pedestrian crossing	Signal at closest intersection	No signal, speed limit ≤ 35 mph	No signal, speed limit > 35 mph
Pedestrian and bicycle access	Sidewalks on US 30 and cross-streets	Partial sidewalk network	No/few sidewalks available
Zoning	Site properly zoned for transit shelters and improvements	Site properly zoned for transit stops	Zoning code amendment required
Proximity to community activity centers	0 – ¼ mile	¼ - ½ mile	> ½ mile
Security (activity levels)	High level of activity	Moderate level of activity	Minimal level of activity
Security (lighting)	Lighting provided	Potential to provide lighting	No power/solar potential at site
Site improvement cost	< $10,000	$10,000 - $100,000	> $100,000
Commuter rail potential	Suitable location for station	Possible location for station	Poor location for station

Table 32 summarizes the results of the bus stop evaluation. Table 32 shows that most of the bus stops rate fairly well based on the evaluation criteria. However, many of the stops located in rural communities lack pedestrian facilities, resulting in poor ratings for pedestrian access, pedestrian crossings, and ADA requirements. However, there were no nearby sites available in these cases with significantly better pedestrian accommodations. Also, only two sites (Scappoose – City Hall and St. Helens – Stimson Site) rate in Tier 1 for commuter rail station potential. However, as the most extensive transit center improvements and highest-capacity transit centers are planned for these sites, the proposed system of stop locations is consistent with any future commuter rail service.

Table 32
Bus Stop Evaluation Summary

Transit Stop	Park-and-ride capacity	Site ownership	Park-and-ride expansion capability	Bus diversion to access stop	Railroad xing delay potential	Bus circulation	Bus stop shelter	ADA requirements	US 30 ped xing	Ped/bike access	Zoning	Activity center proximity	Security (activity levels)	Security (lighting)	Site improvement cost	Commuter rail potential
1: Scappoose-Fred Meyer	N/A	N/A	N/A	2	1	1	1	1	1	1	1	1	1	1	1	3
2: Scappoose-Chinook Plaza	2	2	3	2	1	2	1	3	1	1	1	1	1	1	2	2
3: Scappoose-City Hall	2	1	2	2	3	1	1	3	1	2	1	1	1	2	3	1
4: Scappoose-Post Office	N/A	N/A	N/A	1	1	2	1	1	2	1	1	1	2	2	1	3
5: Warren-Baptist Church	2	2	3	2	1	2	1	3	3	3	3	3	3	2	1	3
6: St. Helens-Safeway	1	2	3	2	1	3	1	3	1	2	1	1	1	1	2	3
7: St. Helens-Ace Hardware	N/A	N/A	N/A	2	1	2	1	1	1	1	1	1	1	1	2	2
8: St. Helens-Columbia Commons	2	2	3	3	3	2	1	3	3	3	1	1	2	1	1	3
9: St. Helens-Stimson site	1	2	3	2	3	1	1	3	1	3	3	3	2	2	3	1
10: Columbia City-City Hall	N/A	N/A	N/A	2	2	2	3	3	3	3	1	1	2	1	1	3
11: Columbia City-Mini Mart	N/A	N/A	N/A	2	1	2	1	3	3	3	1	3	2	1	1	3
12: Deer Island Store	2	1	3	2	1	2	1	3	3	3	3	2	2	2	2	2
13: Goble Tavern/Marina	N/A	N/A	N/A	2	3	1	1	3	3	3	3	2	3	2	2	3
14: Prescott-Blakely Road	N/A	N/A	N/A	3	3	1	1	3	3	3	3	2	3	2	1	3
15: Lindberg Store	N/A	N/A	N/A	1	1	3	1	3	3	3	3	2	2	2	1	3
16: Rainier-Estby station	3	2	2	2	1	1	1	3	2	2	1	1	1	1	1	3
17: Rainier-Senior Center	N/A	N/A	N/A	2	3	1	1	1	2	1	1	1	2	1	1	3
18: Allston Store	N/A	2	2	2	1	3	1	3	3	3	3	2	2	1	1	3
19: Clatskanie-Johnson Oil	3	1	2	2	1	1	1	3	2	2	3	1	2	1	3	3
20: Clatskanie-Safeway	2	2	3	2	1	2	1	3	2	1	3	1	1	1	1	3
21: Marshland Road (east jct.)	N/A	N/A	N/A	1	1	2	1	3	3	3	3	3	3	2	2	3
22: Woodson Road	N/A	N/A	N/A	1	1	2	1	3	3	3	3	3	3	1	2	3
23: Westport	N/A	2	2	1	1	1	1	3	3	3	3	2	2	2	1	3

Passenger Comfort and Access

Twelve of the 23 stops are potential park-and-ride locations. All twelve of these locations rate in either Tier 1 or 2 in terms of existing capacity, and have a total existing capacity of 250 vehicles, with the potential for an additional 200 spaces in the future. While many of these sites are located on privately owned land, they are all compatible with existing land uses.

Non-motorized access to Columbia County transit stops is highest for stops located in urbanized areas, in particular St. Helens and Scappoose. Many stop locations, however, lack high-quality sidewalks, nearby pedestrian crossings of US 30, and/or ADA accessible routes. In urbanized areas, specific improvements to stops were suggested above to improve access. However, pedestrian facilities are unlikely to be installed in the near future at the rural stop locations, due to the general lack of pedestrian facilities to connect to.

Most of the proposed stop locations are located in either areas with high or moderate levels of activity and near major activity centers, both increasing the utility and security of the transit stop. There are several exceptions where stops are located in relatively sparsely populated areas, where no locations with high activity levels were available in the vicinity. Lighting is currently provided at 13 of the sites, with power available to provide lighting at the remaining sites as needed. With one exception, all sites have available space for an accessible bus shelter, should one be required.

Vehicle Circulation and Access

Due to safety concerns (ability to safely stop a bus out of the travel lanes and removing the need for pedestrian crossings of US 30), as well as a desire to serve activity centers as directly as possible, most of the proposed transit stops are not located on US 30 and require some diversion of transit vehicles to serve the stops. However, only three of the stations require diversions of greater than two minutes: Columbia City – City Hall, St. Helens – Columbia Commons, and Prescott – Blakely Road. None of these stops require diversions of greater than four minutes, however, and the Prescott stop is served only by request, minimizing its impact on travel time.

Emphasis was placed identifying transit stop locations not requiring rail crossings. However, because US 30 is closely paralleled by a rail line throughout much of Columbia County and grade-separated crossings are limited, at-grade crossings are unavoidable in several circumstances. A total of six of the 23 sites require at-grade rail crossings. However, a grade-separated alternate route is available at one site (Columbia City – City Hall) and a second site (Prescott) is served only on request.

Several proposed stops are located in parking lots, which serves to better connect transit to activity centers and provides space for transit vehicles to turnaround. However, stops located in parking lots can also cause issues for transit vehicle circulation, including pedestrian conflicts, vehicle conflicts, and speed bumps. None of the proposed stop locations require transit vehicles to traverse speed bumps. Several stops have potential vehicle conflicts, and three stops (Alston Store, Lindberg Store, and St. Helens – Safeway) have both pedestrian and vehicle conflicts, causing these stops to rate in Tier 3. All on-street stops rate in either Tier 1 or Tier 2, with improvements for the Tier 2 stops described in detail above.

Zoning Code Summary

In general, most of the cities along the corridor have zoning codes that support the implementation of transit facilities. The larger projects involving more than simple bus stop improvements will require land use applications to, and approvals by, the appropriate jurisdiction (local city, or the County in unincorporated areas).

Saint Helens

Transit shelters, signs and benches are defined as "Public Facility, Minor" in the development code. These facilities are permitted outright at all transit stop locations.

Bus and transit stations/terminals are allowed outright under only Highway Commerical (HC) zoning. The Stimson site is zoned for Light Industrial (LI). As discussed in more detail in the Transit Implementation Plan document, if the transit center is considered a "Public Facility, Major" by St. Helens, then it would be a conditional use in the LI zone.

Scappoose

"Public support facilities" are allowed outright at all transit stop locations. Public support facilities are defined to explicitly include bus stops and benches. Bus shelters would most likely also be cover under public support facilities, defined here:

"Public support facilities" means services which are necessary to support uses allowed outright in the underlying zone and involves only minor structures such as power lines and poles, phone booths, fire hydrants, as well as bus stops, benches.

Both "Parking Facilities" and "Passenger Terminals" are permitted uses in areas zoned for General Commercial. As the proposed City Hall transit center is zoned General Commercial, the transit center is allowed under current zoning.

Scappoose also has a downtown overlay zone covering the proposed transit center, specifying a number of design criteria (e.g. location of parking) that may affect design of transit center or require design variances.

Columbia City

Transit stops are defined included as "Minor Impact Utilities" in the development code, and are permitted uses for all land uses. Note that transit shelters must enclose less than 36 square feet of space to qualify as minor impact utilities.

Rainier

The proposed Rainier transit center is located within the CBD zone in the Rainier comprehensive plan. "Government – Point of Service" facilities, which would include a transit center, are a permitted use in the CBD. However, design review may be required for a change of use of an existing building within the CBD at the discretion of the Planning Director and/or Public Works Director, based on the intensity of the proposed use.

There is no provision for transit stops in the Rainier development code. However, the only proposed improvement to the Senior Center stop is a sign. The development code specifies a wide range of sign type. Transit stop signage falls under the category of "directional": *A sign which is designed and erected solely for the purpose of traffic or pedestrian direction and which is placed on the property to which or on which the public is directed.* Directional signs are allowed in all land uses without permit.

Unincorporated Columbia County/Clatskanie

Transit facilities of any type are not explicitly discussed in either the Columbia County or Clatskanie development codes. As discussed in the Implementation Plan, it would be desirable to add language allowing transit facilities in the affected zones.

PRIORITIZATION OF BUS STOP IMPROVEMENTS

Short-Term (0–5 Years)

Recommended short-term improvements are low-cost improvements that will help raise the visibility of transit service to the general public, improve passenger comfort and convenience, and improve access to transit service.

- Park-and-ride signage (all existing park-and-rides) – Raises the visibility of transit service to the general public and helps potential new riders locate park-and-ride locations ($4,000)
- Bus stop signage and information displays (all existing stops) – Helps riders locate where they should board their bus and provides information on the destinations and schedules from each stop ($12,200)
- New shared park-and-ride lots (Alston, Westport) – Provides new access opportunities for riders in areas lacking park-and-rides. Requires the cooperation of land owners, but if obtained, initial development costs are limited to park-and-ride signage ($1,750)
- Bollard installation (Columbia Commons) – Desirable for protecting the bus shelter located flush with the parking lot, along with its occupants ($2,400)
- Bus shelter program (eight locations) – As grant funding can be obtained, install bus shelters at park-and-rides and other high-volume stops ($60,000)
- New park and ride (Deer Island) – Provides improved access to the new Rainier–St. Helens flex route ($28,000)
- St. Helens Transit Center/Maintenance Facility (Stimson site) – Provides a centralized location for transfers between routes, consolidates maintenance and administration activities on one site, and provides the potential for revenue generation through leasing unused spaced on the site. Grant funding has been obtained for this site. ($2,512,000)
- Work to acquire the rights to use one of the sites at Scappoose City Hall as a park-and-ride.

Mid-Term (5–10 Years)

Recommended mid-term improvements have higher costs overall, higher costs per passenger served, or improve an existing stop but are considered less essential. If funding can be obtained for them, however, there is no reason why they should not be implemented sooner.

- Rainier Transit Center – Would benefit from painting and signage improvements that would make the site look more like a transit facility and less like a gas station. The parking lot would also benefit from restriped parking spaces. As the site functions adequately today, this is considered a mid-term improvement. ($19,500)

- Clatskanie Transit Center – Requires sprucing up to make it look more like a transit facility and less like a gas station. The parking area requires repaving that will hold up under the weight of buses. ($187,000)

- Scappoose City Hall park-and-ride – Develop one of the two identified sites at Scappoose City Hall as a park-and-ride, to expand park-and-ride capacity in general and provide an alternative if the Chinook Plaza site ceases to be available in the future. Includes the cost of extending the northbound right-turn lane on US 30 to accommodate the additional trips. ($470,000 - $918,000)

- Marshland and Woodson stops – Develop pullouts and bus stops for these two rural communities along US 30. Due to the low population in the area to draw riders from, these are considered mid-term improvements. ($84,000)

- US 30/Columbia Boulevard intersection (St. Helens) – Construct or renovate curb ramps for all crosswalks at this intersection, and provide a pedestrian route across the railroad tracks on the south side of Columbia Boulevard. This would not be a project to be funded by Columbia County Rider, but rather by some combination of ODOT, Columbia County, and the City of St. Helens. ($67,000)

- Shared park-and-ride sidewalk improvements (Scappoose – Chinook Plaza and St. Helens – Safeway) – If long-term agreements to use the parking lots at these locations can be obtained, work with the property owners (including cost-sharing at Safeway, where improvements would also benefit the property owner) to install sidewalk connections from the US 30 frontage to the bus stops. ($44,000)

Long-Term (10+ Years)

A transit center in Scappoose will be desirable when bus service expands to the point that timed transfers between buses become necessary in Scappoose. If commuter rail is developed in the future, the transit center will also facilitate easy transfers between feeder bus service and trains. ($1,222,000+)

Section 9
Implementation Plan

Implementation Plan

The purpose of the Implementation Plan is to outline a strategy for the county to execute the recommendations identified in the Community-wide Transit and US 30 Transit Access Plans. The Implementation Plan is divided into the following five sections:

1. **Code Amendments** – identifies necessary amendments to the County and Cities' comprehensive plans, TSPs, implementing land use ordinances, and roadway standards.

2. **Listing of Projects –** contains two tables listing all of the projects to be added to local plan documents. Table 1 contains projects from this planning process; Table 2 contains projects identified in the Lower Columbia River Rail Corridor Study.

3. **Outreach Programs** – outlines programs to increase public knowledge of and support for transit, improvements to service quality, service expansion, and improvement/efficiencies.

4. **Evaluation Mechanism** – establishes a mechanism for annual evaluation of service and funding, and recommendations for necessary refinement studies and future updates of the Plan.

5. **Refinement Studies** – identifies additional activities that would strengthen the operations and success of the transit system over time.

This plan strives to provide coordinated, comprehensive implementation of recommendations, including phased actions and prioritization, responsible entities, and funding options. It also develops recommendations for amendments to County and City comprehensive plans, transportation system plans, and zoning ordinances to implement the Plans.

CODE AMENDMENTS

Introduction

The local jurisdictions that are participating in the development of the 2009 Columbia County Community-wide Transit Plan (CCCTP) and that are most directly impacted by the plan's recommendations are Columbia County and the incorporated cities of Rainier, Clatskanie, Scappoose, St. Helens, Columbia City and Vernonia. Potential transit facility improvements were identified in these communities, as well as in unincorporated portions of the County in earlier technical memoranda.

The transit policies and implementation ordinances for these communities were reviewed for consistency with the vision statement and recommendations in the CCCTP. In order to implement the CCCTP, it is recommended that the local jurisdictions' transit policies are made consistent with the intent of the CCCTP and land use ordinances amended to allow the improvements recommended by the plan. While most of the participating jurisdictions have adopted policy and ordinance language that support transit, policy and code documents will need to be updated in order to reflect the most recent public transit planning in Columbia County. This memorandum suggests specific modifications to each jurisdiction's existing transit policy and code language that would update local plans and ordinances so that they are consistent with the 2009 CCCTP. Proposed additions to existing text are shown <u>underlined</u>; modified policy and code language that is that is proposed for deletion is shown ~~struck through~~. Language proposed for the cities within Columbia County should be considered a recommendation for updating policies and regulatory provisions. It is expected that, through a local adoption process, each jurisdiction will consider the proposed amendments within the context of the service and facility improvements proposed by the CCCTP and will potentially modify the recommendations to more appropriately reflect the local commitment to transit planning.

Proposed Public Transit Policy Amendments

Final Technical Memorandum #1, Plans, Goals, and Policies, provides a summary of locally adopted policies relevant to the CCCTP. Included in Technical Memorandum #1 are all the local policies that support transit, including ones that generally promote alternative modes of transportation (other than the automobile), such as compact land use, and those that specifically address bicycle and pedestrian modes. This memorandum references the research in Technical Memorandum #1 and identifies how adopted policies that are inconsistent with the CCCTP can be improved to better support the recommendations of the CCCTP.

The proposed policy language included in this memorandum is intended to support public transit in each jurisdiction and the efforts of the transit provider generally and, where applicable, to reflect the specific recommendations in the CCCTP. In some instances, policy language has been formatted for inclusion in the jurisdiction's comprehensive plan directly, not in the adopted TSP. This was done because the TSP's transit information and policies were out-of-date, as compared to a more recently updated comprehensive plan. Because many of the jurisdictions in Columbia County have TSPs from the late 1990's, jurisdictions may elect to incorporate new transit information and

policies into a comprehensive update, rather than amending their TSP at this time. In such cases, it is recommended that the CCCTP-related amendments be made to adopted comprehensive plans. The recommended language should be applicable, regardless of which local policy documents are amended or the associated formatting.

Recommended Amendments for all Jurisdictions

Background information pertaining to public transit in locally adopted plans is out of date and, in most cases, predates the Columbia County Rider program and the 2004 Columbia County Countywide Community Transit Plan. This background information has become even further out of date with the development and adoption of the 2009 CCCTP. To support policy language that is consistent with the recommendations of the CCCTP, participating jurisdictions should consider updating background text in the transportation sections of the locally adopted comprehensive plan or transportation system plan (TSP) to acknowledge Columbia County's role as a transit provider and the recent county-wide planning effort to update transit facilities and service. Sample language is included here:

> Transit service to communities in Columbia County is provided by Columbia County Rider, a service of the Columbia County Transit Division. Columbia County Rider provides fixed-route bus, flex-route bus, and dial-a-ride transit service. In 2004, Columbia County adopted the Countywide Community Transit Plan, which established a set of recommendations to provide this transit service within the county. Recommendations included developing a governance structure to provide public oversight and maximize available resources and ways to increase and improve service. In 2009, Columbia County adopted an updated transit plan, the Columbia County Community-wide Transit Plan (CCCTP), which provides direction for planning and implementation over a 10-year planning horizon for transit services, operations, facilities, funding, and promotion and information services. The CCCTP was developed in conjunction with the findings and recommendations of the US 30 Transit Access Plan, which will guide transit facility access, siting, and design along US 30 through Columbia County, including within the cities of Clatskanie, Rainier, Prescott, Columbia City, St. Helens and Scappoose.

Where the CCCTP recommends physical improvements, such as new bus stops, park and ride facilities, or transit centers along US 30, jurisdictions should amend the public transit element of the locally adopted TSP to include these projects. Projects to be added to the transportation project list of each jurisdiction wherein transportation improvements are recommended can be found in Table 1, US 30 Transit Access Plan Projects.

Columbia County

Columbia County's transportation policies, both in the 1984 Comprehensive Plan and the 1998 Rural Transportation System Plan, predate the establishment of the Columbia County Rider program and the Columbia County Transit Division's role in serving the public transit needs of the county. Background information in these adopted plans pertaining to public transit include

references to the rural transit program COLCO and transit policies were adopted based on the needs of the county's population prior to 2003, when this program ceased to operate.

Comprehensive Plan transportation goals and policies (Part XIII Transportation) include the following that are related to public transit planning:

> GOAL:
>
> The creation of an efficient, safe, and diverse transportation system to serve the needs of Columbia County residents.
>
> OBJECTIVES:
>
> 1. To utilize the various modes of transportation that are available in the County to provide services for the residents.
>
> 2. To encourage and promote an efficient and economical transportation system to serve the commercial and industrial establishments of the County.
>
> 3. To improve the existing transportation system.
>
> POLICIES:
>
> 10. The County will study proposals, when presented, to develop modes of transportation as an alternative to the automobile. If these proposals prove to be feasible, the County will work to implement them.
>
> 11. Columbia County will continue to support the efforts of COLCO Transportation to supply public transit to the citizens of the County.
>
> 12. Special attention will be given to the needs of the handicapped whenever the County considers a proposal for the provision of public transit.

The Rural Transportation System Plan includes a transit plan section. As summarized in the Final Technical Memorandum #1, Plans, Goals, and Policies, the County's current adopted public transportation policy includes the following elements:

- Transit planning should coordinate with the Transportation Demand Management program that manages corridor capacity.
- Develop various park-and-ride locations in the county to support the formation of carpools and convenience of transit alternatives.
- ColCo Transportation should routinely plan for expanded transit services.
- Restoration of transit service must await additional funding and increased demand.

The Rural Transportation System Plan includes the Comprehensive Plan policies and recommends amending these policies to include pursuing intergovernmental agreements to initiate rideshare

and vanpool services for commute markets (Chapter 6 Implementing Mechanisms). The Columbia County Community-wide Transit Plan that was adopted in 2004 updated the county's transit goals; the 2009 CCCTP reflects current conditions and includes recommendations to be implemented over the next ten years.

Columbia County Recommendations: The County should formally adopt the Columbia County Community-wide Transit Plan as the transit element of the Columbia County Transportation System Plan. The County Transit Plan includes a vision statement that expresses the County's public transit policies. This vision statement can replace transit-related policies in the Comprehensive Plan document, or the County could adopt the following amendments to the Comprehensive Plan to update public transit policies:

POLICIES:

10. The County will study proposals, when presented, to develop modes of transportation as an alternative to the automobile. If these proposals prove to be feasible, the County will work to implement them.

11. Columbia County will continue to support public transit through the work of the Columbia County Transit Division and the Columbia County Rider Program ~~the efforts of COLCO Transportation~~ to supply public transit to the citizens of the County.

12. Special attention will be given to ~~the needs of the handicapped~~ providing service to special needs citizens and the elderly whenever the County considers ~~a proposal for the provision of~~ changes to public transit service.

13. The Columbia County Community-wide Transit Plan provides the policy and implementation direction for County transit planning, which includes route development, financing, and physical improvements necessary to maintain and improve public transit service for County citizens and businesses.

Rainier

Residents of Rainier have fixed route service three days a week to Westport and Kelso/Longview (with funding available to expand to five days a week in the second half of 2009), dial-a-ride service, and a new flex-route to St. Helens. The flex-route service is timed to allow for individuals to transfer to and from the St. Helens-Scappoose flex-route.

The 1997 City of Rainier Transportation System Plan includes a transit plan. However, this section of the TSP does not have enumerated goal or policy statements. As listed in the Final Technical Memorandum #1 – Plans, Goals, and Policies, policy statements that can be inferred from language in the transit plan include:

- Improve paratransit service in Rainier.

- Work actively with Columbia County Transit to promote and improve the service connecting Rainier to TriMet's route #17 (Sauvie Island).
- Increase the Rainier fleet (ColCo paratransit buses) by two or three vehicles in the next twenty years, not including vehicle replacement, to support the growing population.
- Coordinate with the Cowlitz Transit Authority to assess the viability of a regularly scheduled connection between Rainier and Longview/Kelso.
- Focus intercity transit stops on US 30 in the proximity of First Street.

Rainier's Comprehensive Plan was last updated in 2003 and contains transportation policies that are more recent and relevant than those in the city's TSP. Under Goal 12 Transportation there is a list of actions that, if found to be consistent with the city's TSP, are not subject to land use regulations. Changes in the frequency of transit, rail and airport services (A.c) is included in this list. The City of Rainier's Comprehensive Plan currently does not include policy language specific to public transit.

Rainier Recommendations: Background information to support Goal 12 policy in the Comprehensive Plan should be modified to reflect the County's recent planning process (see Recommended Amendments for all Jurisdictions section in this memorandum) and current transit conditions in Rainier. In addition, the following policy language is recommended for inclusion in the Comprehensive Plan. Proposed background and policy language may also be used to update the TSP, but due to the lack of explicit policy statements and its age, specific amendments to this document are not provided here.

B. Policies for Protection of Transportation Facilities

The City of Rainier wishes to protect future operation of the Highway 30 corridor, including the highway, pedestrian and bikeways and the rail line. The City also seeks to protect existing and planned transportation systems by continuing coordination with other relevant agencies, adhering to the road standards and following the access management policies and other measures contained in the Plan. The policies of the City of Rainier related to protection of transportation facilities are:

6. Participate in Columbia County's efforts to promote and implement carpool/vanpool programs for reducing commuter vehicular travel demand along Highway 30 (to Portland).

E. Public Transit Policies

1. The City will work with Columbia County to appropriately site new bus stops within city limits in support of the county-wide public transit system. Transit improvements within city limits shall be guided by the findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County.

Clatskanie

The City of Clatskanie's 1997 Transportation System Plan includes a transit plan. This section of the TSP does not have enumerated goal or policy statements. As listed in the Final Technical Memorandum #1 – Plans, Goals, and Policies, policy statements that can be inferred from language in the transit plan include:

- Utilize demand-responsive or paratransit in Clatskanie area.
- Increase two or three vehicles, in addition to replacement of old vehicles, to support the growing population in this area.
- Support COLCO in investigating coordination of service between Clatskanie, Rainier, and Sauvie Island with a possible Cowlitz Transit Authority connection between Rainier and Longview/Kelso.
- Develop the terminal for transit service in Clatskanie on North Nehalem Street in the section between US 30 and the Clatskanie River bridge.

The City of Clatskanie's TSP updated the transportation policies in the city's comprehensive plan, as outlined in Section 6, Land Use Ordinance Modifications. As amended, the Goal 12 Transportation policies of the Comprehensive Plan that address transit include the following:

> GOAL 12: TRANSPORTATION
>
> POLICIES:
>
> 10. The City supports the effects of COLCO to meet the needs of citizens who are transportation disadvantaged.
>
> 11. The City will implement the TSP to achieve a multi-modal transportation system including highway, rail, water, public transportation and pedestrian and bicycle facilities.

The TSP was adopted prior to the Columbia County Transit Division assuming the role of county transit provider. Notably, it does not reflect the existing Westport-Longview/Kelso fixed-route bus service that serves city residents or the fact that the county has a transit center in Clatskanie.

Clatskanie Recommendations: The city's transit plan should be modified to reflect the County's recent planning process (see Recommended Amendments for all Jurisdictions section in this memorandum) and current transit conditions in Clatskanie. In addition, the following policy modifications are recommended:

> 10. The City supports the ~~effects of COLCO~~ efforts of Columbia County to meet the needs of citizens who are transportation disadvantaged.
>
> 12. The City will work with Columbia County to appropriately site new bus stops and park-and-ride lots within city limits in support of the county-wide public transit system. Transit improvements within city limits shall be guided by the

findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County.

13. The City will participate in Columbia County's efforts to promote and implement carpool/vanpool programs for reducing commuter vehicular travel demand along Highway 30 (to Portland).

14. The City will encourage increased opportunities for local and regional public transit routes and facilities.

Scappoose

The 1997 City of Scappoose TSP includes the following transit-related goal and policies:

GOAL 3: Increase the use of Alternative Travel Modes Through Improved Safety and Service

Objectives

F. Evaluate the need for passenger rail transportation and other mass transit alternatives for travel to Portland and Astoria, for commuting and recreation purposes.

G. Identify the need for a carpool/vanpool program for reducing commuter vehicular travel demand along Highway 30 (to Portland).

The TSP includes a public transportation plan section, but this section does not have enumerated goal or policy statements. As included in the Final Technical Memorandum #1 – Plans, Goals, and Policies, background information from the public transportation plan and policy statements that can be inferred from this section of the TSP includes the following:

- COLCO transportation provides demand-responsive bus service for elderly and disadvantaged citizens in the county for travel to Portland, St. Helens, and throughout Scappoose.
- No inter-city transit service is provided to Scappoose.
- Without intercity bus service, Scappoose's transportation system does not follow the guidelines of the Oregon Transportation Plan (OTP).
- It is likely that inter-city transit service along Highway 30 will be re-instituted in the next one or two years. In addition, there may be an increasing need for on-demand transportation services as the area population grows.

Adopted city transit policy pre-dates the Columbia County Rider program. City policy language does not anticipate a County-operated, fixed-route transit service and does not acknowledge the County's role in promoting and implementing carpool and vanpool programs.

Scappoose Recommendations: The city's public transportation plan should be modified to reflect the County's recent planning process (see Recommended Amendments for all Jurisdictions section in this memorandum) and existing transit conditions in Scappoose. Adopting the following recommended language would update the TSP's Goals and Objectives section so that it is consistent with the CCCTP:

G. Participate in Columbia County's efforts to ~~Identify the need for a~~ promote and implement carpool/vanpool programs for reducing commuter vehicular travel demand along Highway 30 (to Portland).

H. Encourage increased opportunities for local and regional public transit routes and facilities.

I. The City of Scappoose supports public transit planning in Columbia County. Transit improvements within city limits shall be guided by the findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County.

St. Helens

The St. Helens TSP, adopted in 1997, has a Public Transportation Plan (Section 7), but the information and recommendations are based on a 1996 Transit Feasibility Study for the U.S. 30 Corridor and are not particularly relevant to the current County transit planning. The TSP's general goals and objectives related to transit include:

2.3 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 of travel.
- Improve public transportation options within St. Helens as well as to other areas.
- Promote alternative modes of travel (such as bicycle and pedestrian) and connections to these modes to reduce vehicle miles of travel.

Updated last in 2006, the following City's Comprehensive Plan transportation policies are more current than those in the city's TSP's:

19.08.040 Transportation goals and policies.

(2) Goals.

(a) To develop and maintain methods for moving people and goods which are:

(i) Responsive to the needs and preferences of individuals, business and industry;

(ii) Suitably integrated into the fabric of the urban communities; and

(iii) Safe, rapid, economical and convenient to use.

(g) To cooperate closely with the county and state on transportation matters.

(j) To encourage energy-conserving modes of transit.

(3) Policies. It is the policy of the city of St. Helens to:

(l) Work with Columbia County and other agencies in their efforts to meet the needs of the transportationally disadvantaged in the community.

(m) Encourage increased opportunities for public local and regional transit facilities.

The city's goals and policies promote public transit and highlight the importance of working with Columbia County to implement transit-related objectives. However, existing city policy does not address transit facility siting.

St. Helens Recommendations: Amend Section 19.08.040 to include policy language that supports public transit in the County generally and the specific CCCTP recommendation to locate the proposed Deer Island Road Transit Center on Highway 30 in St. Helens. The city's TSP should also be updated using the background language in the "Recommended Amendments for all Jurisdictions" section of this memorandum and policy statements similar to those recommended below.

(n) Support public transit planning in Columbia County. Transit improvements within city limits shall be guided by the findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County.

(o) Work in partnership with the County in planning for public transit facilities located within city limits and, when feasible, facilitate the citing and operation of such facilities.

Columbia City

Columbia City is currently served by the Rainier-St. Helens flex-route service.

The future transportation needs identified in the City of Columbia City TSP, adopted in 1997, anticipated the need for increased intercity public transit between Columbia City/St. Helens and Portland.

Transportation goals and objectives in the TSP related to transit include:

> 2.4 Goals and Objectives
>
> Goal: TRANSPORTATION – Develop a transportation system 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.
> - Promote alternative modes of travel (such as bicycle and pedestrian) and connections to these modes to reduce vehicle miles of travel.

The Public Transportation Plan included in the TSP contains the city's adopted transit policy. As summarized in the Final Technical Memorandum #1, Plans, Goals, and Policies, policy statements paraphrased from this section of the TSP include the following:

- Intracity Transit: The City of Columbia City should continue to support COLCO's dial-a-ride service throughout Columbia County.
- Intercity Transit: A recent transit feasibility study has determined 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 study recommends that a "Vanpool Service" be implemented between St. Helens/Columbia City and Portland. It is recommended that this service be expanded to an all-day service, with connections to the St. John's Transit Center.

Columbia City's Comprehensive Plan policies are more recent than the city's TSP, as the city underwent a review and update of this document 2000-2003.[9] Background on the transit system can be found in subsection I. Public Facilities and Services. Information in this section indicates that the community will not need or will not be able to justify an intra-city fixed-route transit system. Instead, the Comprehensive Plan states that it is likely that the transit provider will need to expand operation of its current local dial-a-ride service. Subsection K. Transportation includes the following transit policies:

[9] The Comprehensive Plan states that "The current review is scheduled to be complete by June, 2003."

8. Continue to support the efforts of COLCO Transportation to supply public transit to the citizens of Columbia City.

9. Special attention will be given to the needs of the handicapped and other transportation disadvantaged individuals whenever the City considers a proposal for the provision of public transit.

Columbia City Recommendations: The City of Columbia City should consider revising the Public Transportation Plan to reflect the County's recent planning process (see Recommended Amendments for all Jurisdictions section in this memorandum). Background information that supports proposed policy should include current transit service conditions in Columbia City. In addition, the following policy amendments are recommended for inclusion in the transportation element of the Comprehensive Plan. These policy statements are numbered consistent with the Comprehensive Plan but can be modified for inclusion in Section 2.4 Goals and Objectives of the TSP.

8. Continue to support ~~the efforts of COLCO Transportation to supply public transit to the citizens of Columbia City~~ public transit planning in Columbia County. Transit improvements within city limits shall be guided by the findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County.

9. Special attention will be given to ~~the needs of the handicapped and other transportation disadvantaged individuals~~ providing service to special needs citizens and the elderly whenever the City considers ~~a proposal for the provision of~~ changes to public transit service.

10. Work in partnership with the County in planning for public transit facilities located within city limits and, when feasible, facilitate the citing and operation of such facilities.

[Note: Subsequent policies in this section will need to be renumbered.]

Vernonia

The Public Transit System Plan in the City of Vernonia's 1999 TSP encourages the city's support of dial-a-ride van service, but does not recommend additional public transit service. This is inconsistent with the public input gathered as part of the County's transit plan update that indicated a need for fixed-route service to Hillsboro and PCC-Rock Creek. In addition to the proposed Vernonia-PCC route, CCCTP recommendations include a weekday flex-route that travels from Vernonia to St. Helens via Scappoose three days per week and travels to Clatskanie via Mist the other two days per week. The CCCTP also calls for a park-and-ride area in Vernonia.

Vernonia Recommendations: The City of Vernonia should revise background information in the TSP to reflect recent Columbia County transit planning (see Recommended Amendments for all Jurisdictions section in this memorandum). Background information that supports proposed policy

should include current conditions in Vernonia, including the identified need for a park-and-ride. In addition, the following policy amendments are recommended:

APPENDIX B.

TRANSPORTATION SYSTEM PLAN GOALS AND POLICIES

Goal 3: Transportation Alternatives

Support the use of other modes of transportation (bicycles, pedestrians, equestrians, and transit) through effective transportation improvements.

Policy 3.2 ~~Investigate the possibility for~~Support Columbia County's efforts to provide public transit for Vernonia, especially for connections to ~~Forest Grove~~Hillsboro and Clatskanie/Scappoose/St. Helens.

Policy 3.5 Encourage the development of public and private transportation options for transportation-disadvantaged populations, such as older adults.

Policy 3.7 The City will work with Columbia County to appropriately site new bus stops and park-and-ride lots within city limits in support of the county-wide public transit system. Transit improvements within city limits shall be guided by the findings and recommendations of the Columbia County Community-wide Transit Plan, as adopted by Columbia County. Public transit facilities adopted as part of the City's TSP will be permitted outright in any zone.

PROPOSED PUBLIC TRANSIT-RELATED CODE AMENDMENTS

In order to implement the CCCTP, the local land use ordinances must allow outright the improvements recommended by the plan or provide a process through which the proposed improvements may be permitted. Zoning ordinance language was reviewed to ensure that jurisdictions allowed transit uses in the zoning districts where transit-related facilities would most likely be located.

In addition, each participating jurisdiction's development code language was reviewed for provisions that would require new development to provide pedestrian access to existing or planned public transit facilities, as well as provide for the actual facilities, if the subject site(s) were identified by the CCCTP as the location of necessary transit improvement.

Most of the codes reviewed include pedestrian connectivity standards, but only a few jurisdictions specifically called out the need to establish connections between buildings and transit facilities. For those jurisdictions that did not require pedestrian connectivity to transit stops, proposed code language suggests requiring development on sites within a ¼ mile from an existing or planned transit stop to include safe and convenient pedestrian routes from buildings within the development to the stop or to a public right-of-way that provides access to the transit stop. The distance of ¼ mile is supported by the State Transportation Planning Rule, which defines a "major transit stop" as a stop that is within a quarter of a mile from an area planned and zoned for medium or high density residential development, intensive commercial or institutional uses, or uses likely to generate a relatively high level of transit ridership. The recommended distance also assumes that pedestrians generally would be less likely to walk distances greater than ¼ mile. If a local jurisdiction determines that the proposed distance is not appropriate, an alternative is to require only those developments that include, or are adjacent to, an existing or planned transit stop provide pedestrian connections to the stop. At the request of Columbia County staff, proposed amendments to the Columbia County Zoning Ordinance reflect this alternative.

Proposed code amendments include development standards that would require providing for transit facilities if such improvements were included in the locally adopted TSP or the CCCTP. Consistent with the recommended amendments, developers could be required to dedicate land or an easement for transit improvements or to provide transit-related improvements such as a passenger landing pad and lighting.

Recommendations also include amendments to local jurisdiction's notification requirements to ensure that Columbia County Rider is notified of land use applications that impact the transit system. Proposed amendments will ensure that the transit provider has an opportunity to participate in the review of development proposals and, in some cases, the public hearing process.

Columbia County

In order to allow the physical public transit improvements recommended in the CCCTP that are located in unincorporated areas of the County, the Columbia County Zoning Ordinance should include public transit facilities as allowed uses in applicable zoning districts. Currently, the Zoning

Ordinance does not define public transit facilities, nor does it address their provision, or access to them, in the development regulations.

The CCCTP identifies pedestrian access issues at existing transit facilities, including the bus stop in Alston. Currently, the Zoning Ordinance does not require that new development proposals address pedestrian access. While amending the Zoning Ordinance to include such a requirement will not immediately address conditions at exiting bus stops, requiring future pedestrian connections will generally improve access to public transit.

The CCCTP recommends a number of physical improvements in unincorporated communities within the County to support existing transit, as well as the proposed changes in service. Proposed street and parking improvements are not anticipated to require land use permitting. However, the recommended bus signs to support the transit system are not explicitly addressed in the County's sign ordinance (Section 1300 in the Zoning Ordinance).

Currently, the Zoning Ordinance does not address coordination with the transit provider as part of the development review process. Section 1550, Site Design Review, is required for all new development, redevelopment, expansion, or improvement of all community, governmental, institutional, commercial, industrial, and multi-family residential (4 or more units) uses in the County. Pre-application conferences are required for proposals subject to Site Design Review, but Columbia County Rider is not listed as a possible participant on the Pre-application Conference Committee. Section 1600, Administration, includes notification requirements for all applications subject to the Zoning Ordinance. Currently this section does not specify that the County notifies interested agencies, such as Columbia County Rider, of land use applications or hearings.

Columbia County Recommendations: It is recommended that the Zoning Ordinance be amended to allow public transit facilities in the Suburban Districts. A definition for public transit facilities:

> Public Transit Facilities: Public transit facilities include one or more of the following: a bus stop, building, shelter, or park-and-ride lot where bus service is accessed.

The County should include public transit facilities as allowed uses in higher density residential zoning districts and in higher intensity commercial zoning districts where transit service currently exists or where it may be viable in the future. The following Rural Development Districts (Article IV), Suburban Districts (Article V), and Special Districts (Article VI) should include "public transit facilities" in the list of allowed uses:

> Section 650 RURAL COMMUNITY
>
> 652 Permitted Uses:
>
> .5 Public transit facilities.

Section 670 EXISTING COMMERCIAL

672 Permitted Uses:

.2 Public transit facilities.

Section 680 RESOURCE INDUSTRIAL – PLANNED DEVELOPMENT

682 Permitted Uses:

.3 Public transit facilities.

Section 720 MULTIPLE-FAMILY RESIDENTIAL

722 Permitted Uses:

.5 Public transit facilities.

Section 730 MOBILE HOME RESIDENTIAL

732 Permitted Uses:

.4 Public transit facilities.

Section 800 HIGHWAY COMMERCIAL

802 Permitted Uses:

.16 Public transit facilities.

Section 820 GENERAL COMMERCIAL

822 Permitted Uses:

.26 Public transit facilities

Section 830 MARINE COMMERCIAL

832 Permitted Uses:

.8 Public transit facilities.

~~.8~~ .9 any other use held similar to the above uses, as approved by the Commission.

Section 910 INDUSTRIAL PARK

912 Permitted Uses:

.10 Public transit facilities.

Section 940 AIRPORT INDUSTRIAL

942 Permitted Uses:

.17 Public transit facilities.

Section 1000 COMMUNITY SERVICE - INSTITUTIONAL

1002 Permitted Uses:

.20 Public transit facilities.

Section 1020 COMMUNITY SERVICE - RECREATION

1022 Permitted Uses:

.6 Public transit facilities.

To further County transit goals and improve access to transit facilities in the county, it is recommended that the Zoning Ordinance include provisions that require certain development proposals to accommodate transit facilities and provide pedestrian connections to existing and

planned transit stops. Two new sections in Article VIII, Discretionary Permits, and a new section in Article VI, Special Districts, Overlay Districts and Special Provisions, are proposed below.[10]

1561 Proposed Site Plan: A complete application for design review shall be submitted, including the following plans, […]

E. Pedestrian Access and Circulation

1. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all developments, except single-family detached housing (i.e., on individual lots), shall provide a continuous pedestrian system.

2. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable.

3. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, based on the following definitions:

   a. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

   b. Safe and convenient. Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.

   c. "Primary entrance" for commercial, industrial, public, and institutional buildings is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.

   d. "Primary entrance" for residential buildings is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway which serves as a common entrance for more than one dwelling.

4. When proposed commercial, office, institutional or multi-family uses are located on a site that includes or is adjacent to an existing or planned transit stop, the

[10] Pedestrian access and circulation requirements and standards are modified from the Oregon Transportation Growth Management's Model Development Code & User's Guide for Small Cities, 2nd Edition. Additional code language, including illustrations, can be found in Article 3, Community Design Standards, of the Model Development Code.

proposed pedestrian circulation system must demonstrate a safe and convenient pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

1563 Standards for Approval:

The Planning Commission or Director shall make a finding with respect to each of the following criteria when approving, approving with conditions, or denying an application:

F. Walkway Design and Construction. Walkways, including those provided with pedestrian access ways, shall conform to all of the standards in subsections 1-4:

1. Vehicle/Walkway Separation. Except for crosswalks (subsection 2), where a walkway abuts a driveway or street, it shall be raised 6 inches and curbed along the edge of the driveway/street. Alternatively, the decision body may approve a walkway abutting a driveway at the same grade as the driveway if the walkway is protected from all vehicle maneuvering areas. An example of such protection is a row of decorative metal or concrete bollards designed for withstand a vehicle's impact, with adequate minimum spacing between them to protect pedestrians.

2. Crosswalks. Where walkways cross a parking area, driveway, or street ("crosswalk"), they shall be clearly marked with contrasting paving materials (e.g., light-color concrete inlay between asphalt), which may be part of a raised/hump crossing area. Painted or thermo-plastic striping and similar types of non-permanent applications may be approved for crosswalks not exceeding 24 feet in length.

4. Walkway Width and Surface. Walkway and accessway surfaces shall be concrete, asphalt, brick/masonry pavers, or other durable surface, as approved by the City Engineer, at least six (6) feet wide. Multi-use paths (i.e., for bicycles and pedestrians) shall be concrete or asphalt, at least 10 feet wide.

5. Accessible routes. Walkways shall comply with applicable Americans with Disabilities Act (ADA) requirements. The ends of all walkways, where the walkway intersects a driveway or street shall provide ramps that are ADA accessible, and walkways shall provide direct routes to primary building entrances.

[Note: the County may want to amend criteria and/or conditions of approval under existing zoning districts to include a cross reference to this new section.]

1500 Transit Improvements

.1 Sites that include existing or planned transit facilities, as identified in the County Transit Plan, may be required to provide the following:

A. A reasonably direct pedestrian connection, as defined by Section 1561.E.3.a, between the transit facility and building entrances on the site .
B. A transit passenger landing pad accessible to disabled persons.
C. An easement or dedication for a passenger shelter or bench if such facility is identified in the County Transit Plan.
D. Lighting at the transit facility.

To ensure that the bus stop signage recommended at a variety of locations within the County can be sited, it is recommended that the Zoning Ordinance be modified to specifically state that these types of signs are allowed.

1311 Signs for Essential Services and Public Facilities: The following signs shall be permitted in all districts:

.1 City limits signs and public notice signs.

.2 Police, fire, school, and hospital directional signs.

.3 Park directional signs.

.4 Traffic and safety signs.

.5 Transit-related (bus) signs.

Finally, it is recommended that the notification be sent to Columbia County Rider to participate in the pre-application conferences of proposals that impact the transit system and that the County's notification procedures be amended to include agency notification of quasi-judicial or legislative hearings.

Section 1550 SITE DESIGN REVIEW

.4 Pre-application Conference Committee: The committee shall be appointed by the Planning Director and shall consist of at least the following officials, or their designated staff members. Only affected officials need to be present at each pre-application conference.

a) The County Planning Director.

b) The County Director of Public Works.

c) The Fire Marshal of the appropriate Rural Fire District.

d) The County Building Official.

e) The County Sanitarian.

f) A city representative, for projects inside Urban Growth Boundaries.

g) A representative from the County transit agency.

~~g)~~ h) Other appointees by the Planning Director, such as an Architect, Landscape Architect, real estate agent, appropriate officials, etc.

1603 Quasijudicial Public Hearings: […]

.2 Once an application is deemed complete, it shall be scheduled for the earliest possible hearing before the Planning Commission or Hearings Officer. The Director will publish a notice of the request in a paper of general circulation not less than 10 calendar days prior to the scheduled public hearing. Notices will also be mailed to adjacent individual property owners, in accordance with ORS 197.763, and affected jurisdictions and agencies. Agency notification could include the Department of Environmental Quality, the Oregon Department of Transportation, and Columbia County Rider.

1606 Legislative Hearing: […]

.2 Notice of a Legislative Hearing shall be published at least twice, one week apart in newspapers of general circulation in Columbia County. The last of these notices shall be published no less than 10 calendar days prior to the Legislative Hearing. The mailing of notice to individual property owners is not required but shall be done if ordered by the Board of Commissioners. Notice shall be provided to the Oregon Department of Transportation and Columbia County Rider for proposals that impact the transportation system.

Rainier

Fixed-route, flex-route and dial-a-ride public transit service is currently available to the residents of Rainier.

Transit-related uses fall under the definition of "public use" in the city's Zoning Ordinance (Title 18). A public use is defined as "a use intended or used for a public purpose by the city, school district, county, state, or other public agency, or by a public utility (Section 1.3 Definitions)." Public uses are allowed outright in the city's General Commercial (C-2) zone and are conditional uses in all other zones. The city's Planning Commission may approve, approve with conditions, or deny the application for a conditional use permit through a Type III decision, pursuant to Section 6.4.

In addition to permitting transit-related uses, the city's Subdivision Ordinance (Title 17) requires that applicants show connections to public transit routes on the subdivision plan (17.10.020.D) and required street improvements include transit facilities (17.30.140.F). Pathways for non-motorized forms of transportation are required in residential and commercial subdivisions and partitions and these pathways must connect the proposed development to adjoining arterial or collector streets if they include transit stops (17.30.180.B.2).

Most of the physical improvements recommended in the CCCTP, including parking and street improvements and signage on or near US 30, are not anticipated to require land use approval or permitting.[11] Signage improvements to the existing bus facility at the intersection of US 30 and W. 2nd Street, as well as bus stop signs at the Rainier Senior Center should not require a sign permit, pursuant to Section 5,13 Signs.[12]

Regarding coordination with the transit agency, Article 7, Administration, requires public hearing notification of Type II (limited land use) and Type III (quasi-judicial) decisions to "(a)ny other public agency or utility whose property, services or facilities may be affected". Pursuant to Article 6, Procedures and Review Criteria, amendments to the City's comprehensive plan or implementing ordinances (Type IV decisions) must be consistent with the Columbia County's Transportation System Plan.

Rainier Recommendation: No code amendments are necessary to implement the CCCTP.

Clatskanie

Clatskanie city residents are served by an existing fixed-route bus service, the Westport-Longview/Kelso line. The CCCTP recommends that the county service eliminate the Westport stop as a Columbia County Rider facility and have the Sunset Empire Transportation District provide this connection. The County's transit center in Clatskanie (the former Johnson Oil gas station) would continue to meet the needs of both Columbia County Rider and Sunset Empire passengers. This change would allow for a cost savings that could be used to expand service from three days to five days a week for Clatskanie residents. In addition, the CCCTP recommends new flex-route service from Vernonia to Clatskanie via Mist two days per week. The recommended service changes do not require local land use actions. Bus stop, parking, and street improvements also are not

[11] Pursuant to the city's sign code, signs that are located on or visible to travelers on State Highway 30 are subject to the regulations and permit requirements of ODOT (Section 5.13 Signs).

[12] Canopy signage does not require a permit in the city's commercial and institutional zones, pursuant to Table 1, but is subject to the requirements of Tables 2A and 2B. A bus stop sign at the Senior Center may be considered a pole sign, which is allowed without a permit in the West Rainier and Highway 30 commercial and industrial districts, as well as institutional properties. A bus stop sign also meets the city's definition of an "incidental" sign ("generally informational and that has a purpose secondary to the use of the premises on which it is located, such as 'no parking,'…"), which are allowed in all zoning districts.

anticipated to require land use permitting.[13] Placing signage on the canopy of the existing Transit Center (old Johnson Oil gas station) should not require a permit, pursuant to Section 9-12-3, but will be subject to the requirements of the city's sign regulations.[14]

The CCCTP identifies pedestrian access issues at the transit facilities in Clatskanie. Currently, the city's Development Code (Title 9 Land Use and Development Code) does not require that development proposals provide for transit facilities or address pedestrian access to transit. Public transit facilities are not defined and are not included in the list of permitted uses under each zoning district. Currently, Title 9 also does not include any requirements for notification to other public agencies, such as Columbia County Rider, of proposals that could impact the services or facilities of public service providers.

Clatskanie Recommendations: While no code amendments are necessary to implement the CCCTP's service changes in Clatskanie, it is recommended that the Development Code be amended to allow existing public transit facilities (bus stops/transit center) in the zone(s) where they are located. To list public transit facilities as an allowed use, a definition for the term is required:

> PUBLIC TRANSIT FACILITIES: Public transit facilities include one or more of the following: a bus stop, building, shelter, or park-and-ride lot where bus service is accessed.

Public transit facilities should be allowed uses in higher density residential zoning districts and in higher intensity commercial zoning districts where transit service currently exists or where it may be viable in the future. In Clatskanie, appropriate zoning districts to allow public transit facilities include the Multi-Family Residential Zone (MFR) and the C-1 General Commercial Use Zone:

> 9-5D-1: PERMITTED USES:
>
> A. Uses Designated: In an MFR zone, the following uses, and their accessory uses, are permitted:
>
> Public transit facilities.

[13] Information signs or structures authorized by federal, state, county or city authority are not subject to the city's sign regulations, pursuant to Section 9-12-5 of the Development Code.

[14] Section 9-12-7.D. Awning Signage: The maximum sign area shall not exceed thirty percent (30%) of the awning area. The sign shall be integrated into the design and material of the awning on which it is located.

9-6B-1: PERMITTED USES:

In a C-1 zone, the following uses and their accessory uses are permitted:

E. Public transit facilities.

To ensure that planned transit improvements will be included in development plans as land in Clatskanie is developed and redeveloped, a new section is proposed for Chapter 10 Regulations and Standards:

9-10-7 Transit Improvements

A. Development proposals for sites that include existing or planned transit facilities, as shown in the adopted Clatskanie Transportation System Plan or County Transit Plan, may be required to provide the following:

1. A reasonably direct pedestrian connection, as defined by ***[new]*** Section 9-11-8, between the transit facility and building entrances on the site.

2. A transit passenger landing pad accessible to disabled persons.

3. An easement or dedication for a passenger shelter or bench if such facility is identified in the Clatskanie Transportation System Plan or the adopted County Transit Plan.

4. Lighting at the transit facility.

To facilitate access to transit in the future, it is recommended that the Development Code be amended to require proposed development to provide pedestrian connections to existing and planned transit stops. A new section under Chapter 11, Parking, Loading and Access is proposed below. Additional code language regarding pedestrian circulation, including illustrations, can be found in Article 3, Community Design Standards, of the Oregon Transportation Growth Management's Model Development Code & User's Guide for Small Cities, 2nd Edition.

9-11-8: Pedestrian Access and Circulation

A. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all developments, except single-family detached housing (i.e., on individual lots), shall provide a continuous pedestrian system.

B. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable.

C. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, based on the following definitions:

1. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

2. Safe and convenient. Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.

3. "Primary entrance" for commercial, industrial, public, and institutional buildings is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.

4. "Primary entrance" for residential buildings is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway which serves as a common entrance for more than one dwelling.

D. When proposed commercial, office, institutional or multi-family uses are located on a site within ¼ mile of an existing or planned transit stop, the proposed pedestrian circulation system must demonstrate a safe and convenient pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

Finally, it is recommended that the City's notification procedures be amended to include agency referral of proposals that require a quasi-judicial or legislative approval process and notification of hearings for these types of decisions. *[NOTE: Adoption of new Subsection "C" will require renumbering of Section 9-3-7. Proposed language for notice of a Quasi-Judicial Hearing (existing Subsection D) is modeled after the City of Rainier's Zoning Ordinance, Article 7 Administration.]*

9-3-7: PUBLIC HEARINGS:

C. Agency Notice of Application. Notice of the receipt of a complete application will be sent to interested agencies such as City departments, police and fire districts, school district, utility companies, and applicable city, county, and state agencies. Affected jurisdictions and agencies could include the Department of Environmental Quality, the Oregon Department of Transportation, and Columbia County Rider. Notice of projects affecting state transportation facilities will be sent to ODOT. Referrals will be sent to affected neighborhood associations.

E. Notice Of Public Hearings: Notice shall be provided in the following manner, depending on the type of action:

1. Quasi-Judicial: The quasi-judicial land use hearing notice requirements shall be ~~regulated under the Oregon Revised Statutes~~ provided in accordance with the provisions of ORS 197.763 and as follows:

A. Notice shall be published in a newspaper of general circulation at least ten (10) days before the hearing. Based upon unforeseeable and special issues particular to the subject property, the City Council may at the time of scheduling the public hearing increase the public hearing notification area beyond the area specified by the code section being considered.

B. Notice shall be posted in three (3) conspicuous public places in the City at least twenty (20) days before the hearing;

C. Notice shall be sent by mail at least twenty (20) days before the hearing to:

1. The applicant or representative;

2. All property owners of record within two hundred fifty (250) feet of the boundaries of the subject property;

3. Any recognized neighborhood or community organizations whose boundaries include the site or whose resources may be impacted by the proposal

5. Any public agency or utility whose property, services or facilities may be affected, such as Columbia County, the Oregon Department of Transportation, and Columbia County Rider. The reviewing Staff shall determine the extent of notice to the additional public agencies or utilities based on perceived interest or impact.

Scappoose

A number of physical improvements within the City of Scappoose are proposed in order to support recommended changes to fixed route service serving the city, as well as to facilitate the establishment of a new flex-route service to Vernonia within a 10-year planning horizon. Proposed improvements in the CCCTP are primarily associated with existing stops and park-and-rides and pertain to parking and street improvements that are not anticipated to require land use approval or permitting.[15] Recommendations in the CCCTP, which include new flex-route service to Vernonia within a 10-year planning horizon, should not entail any physical improvements that would require a city permitting process. While implementation of the CCCTP does not necessitate any immediate changes to the Scappoose Land Use and Development Code, minor code amendments to allow

[15] Recommended improvements include bus stop and park-and-ride signage. Pursuant to Chapter 17.114.030.C.2 in the city's Development Ordiance, public signs, directional signs, or information signs or structures required or authorized by law, or by federal, state, county or city authority are exempt from the application, permit and fee requirements of the sign ordince.

outright transit-related uses would facilitate the future siting of public transit improvements in Scappoose.

Included in the Scappoose Land Use and Development Code's (Title 17) definition of "public support facilities" are uses that are "necessary to support principal development," including bus stops and benches. Public support facilities are allowed outright in residential (R-1, R-4), Manufactured Housing (MH), Expanded Commercial (EC), Light Industrial, Heavy Industrial and Surface Mining zones. Public support facilities are not listed as allowed uses in the General Commercial or public lands zones. Because uses in these zoning districts benefit from access to public transit, it is recommended that public support facilities also be allowed outright in these zones. This minor code amendment would allow outright transit-related uses and would facilitate the future siting of the improvements recommended by the CCCTP.

The City of Scappoose provides for public transit through site development review (Chapter 17.120). All new development, with the exception of single-family residential, is subject to site development review. The Planning Commission is the decision-making body and requirements for public transit are included in the criteria they use to approve, approve with conditions, or deny a proposal.

> SITE DEVELOPMENT REVIEW
>
> 17.120.180 Approval standards. The planning commission shall make a finding with respect to each of the following criteria when approving, approving with conditions, or denying an application:
>
> K. Public transit:
>
> 1. Provisions within the plan shall be included for providing for transit if the development proposal is adjacent to existing or proposed transit route.
>
> 2. The requirements for transit facilities shall be based on:
>
> a. The location of other transit facilities in the area,
>
> b. The size and type of the proposal.
>
> 3. The following facilities may be required:
>
> a. Bus stop shelters,
>
> b. Turnouts for buses, and
>
> c. Connecting paths to the shelters.

Notice to "any affected governmental agency" is required for legislative hearings (17.160.025 Notice Requirements), but no other agency referral or coordination as part of development review is required.

Scappoose Recommendations: It is recommended that the Land Use and Development Code be amended to allow public support facilities (i.e., bus stops) in all zones where they might logically be sited. Dense concentrations of commercial and civic uses are likely to generate public transit ridership. Therefore, it is recommended that the Public Lands – Institutional (PL-I) and General Commercial (C) zoning districts allow public support facilities outright in order to facilitate the siting of transit-supportive uses:

> 17.62.030 Permitted uses. In the general commercial zone, activities shall be conducted within an enclosed structure or building and are subject to Chapter 17.120, Site Development Review. Only the following uses and their accessory uses are permitted outright:
>
> FF. Public support facilities.
>
> 17.77.030 Permitted uses. In the PL-I zone, only the following uses and their accessory uses are permitted outright, and are subject to the provisions of Chapter 17.120, Site Development Review:
>
> E. Public support facilities.

Specific to the implementation of the CCCTP, this code amendment would ensure that the bus stop improvements recommended for the new Fred Meyer stop on the St. Helens-Scappoose flex route would not require land use permitting.

In addition to allowing and implementing planned transit facilities, the following changes are recommended to ensure that the County transit provider is included in the review of proposed land use changes and development proposals that may impact transit service or facilities.

> Chapter 17.162 Procedures for Decision Making – Quasi-Judicial
>
> 17.162.020 Application process.
>
> P. Referrals will be sent to interested agencies such as City departments, police and fire departments districts, school district, utility companies, and applicable city, county, and state agencies. Affected jurisdictions and agencies could include the Department of Environmental Quality, the Oregon Department of Transportation, and Columbia County Rider.
>
> 17.162.025 Noticing requirements. A. Notice of a pending quasi-judicial public hearing shall be given by the planner in the following manner:
>
> c. Any governmental agency or utility whose property, services or facilities may be affected by the decision. ~~which has entered into an intergovernmental agreement~~

~~with the city which includes provision for such notice~~ The reviewing Staff shall determine the extent of notice to the additional public agencies or utilities based on perceived interest or impact;

St. Helens

The CCCTP recommendations include a number of public transit improvements that will benefit the citizens of St. Helens, including new Vernonia flex-route service and the Deer Island Road Transit Center proposed to be located near Highway 30 within the city limits. With the notable exception of the proposed redevelopment of the Stimson Site for the new transit center, recommended physical improvements are confined to existing transit stops. Proposed street and parking improvements and signage are not anticipated to require land use approval or permitting.[16]

The review of the St. Helens Community Development Code (Title 17) did not identify any barriers to siting transit facilities in the vicinity of Highway 30. The Community Development Code allows "minor public facilities" outright in all zone districts, with the exception of the R10, R7 and Olde Towne zones. The definition of minor public facilities includes transit improvements, such as shelters or pedestrian and bicycle safety improvements, located within public right-of-way or on public property (17.16.010 General and Land Use Definitions).

It is possible that the proposed Deer Island Road Transit Center, the plans for which include an administration building and a maintenance building, would be considered a "major" public facility. A major public facility is defined as "any public service improvement or structure developed by or for a public agency that is not defined as a minor public facility." The identified site for the future transit center is currently zoned Light Industrial (LI). Major public facilities are a conditional use in the LI zone (17.32.130.3.l). The Planning Commission has decision-making authority to approve, approve with conditions, or deny conditional uses permits. Planning Commission approval is based on how well the proposal meets the criteria in Chapter 17.100, Conditional Use.

The Community Development Code also contains transit-supportive development requirements. These include the allowed conversion of up to 10 percent of existing required parking spaces to accommodate transit supportive facilities (17.80.030.3) and requiring that proposed street or street extensions be located to provide direct access to existing or planned transit stops (17.152.030.7.c). The Community Development code does not, however, include requirements that new development provide for transit facilities or provide pedestrian access to existing and planned transit stops. Section 17.84.050, Required Walkway Location, includes requirements that new development provide convenient connections between buildings and from building entrances to streets. This section would be the appropriate location to address pedestrian access to transit stops.

[16] Pursuant to Section 17.88.040, public signs do not require a sign permit. "Public sign" is defined as a sign that is constructed or placed within the public right-of-way by or with the approval of the governmental agency having authority over, control of, or ownership of the right-of-way or a sign constructed or placed by a public utility on or adjacent to a pole, pipe, or distribution facility of the utility and within the public right-of-way.

St. Helens Recommendations: There are no barriers to implementing the CCCTP in the St. Helens Community Development Code. However, it is recommended that code language be strengthened to ensure coordination with the transit provider regarding notification of land use proposals and decisions. In addition, to facilitate public transit usage in the community, a transit element under the Public Use section is recommended for inclusion in Chapter 17.152, Street and Utility Improvement Standards. Proposed code language related to pedestrian access to transit stops is also recommended.

17.24.040 Preapplication conference.
(1) Unless excepted herein, all applicants for quasi-judicial land use applications shall be required to meet with the director for a preapplication conference. […]
(2) Preapplication Conference Issues. At the preapplication conference, the director, the applicant, and the representatives from other city departments and county and state agencies, as applicable, shall discuss issues that relate to the proposed development and application. Those issues shall include but not be limited to the following, as applicable to the proposed development:

17.24.130 Notice of planning commission, historic landmark commission and city council proceedings.
(1) Notice of an impending action pursuant to SHMC 17.24.090 shall be given by the director in the following manner:
(a) At least 20 days prior to the scheduled hearing date, or if two or more hearings are scheduled, 10 days prior to the first hearing and 20 days prior to the second hearing, notice shall be sent by mail to:

(iii) Any affected governmental agency which has entered into an intergovernmental agreement with the city which includes provision for such notice or public agency that provides a service within the city;

17.84.050 Required walkway location.

(1) Walkways shall extend from the ground floor entrances or from the ground floor landing of stairs, ramps, or elevators of all commercial, institutional, and industrial uses, to the streets which provide the required access and egress. Walkways shall provide convenient connections between buildings in multibuilding commercial, institutional, and industrial complexes. Unless impractical, walkways should be constructed between a new development and neighboring developments.

(2) Within all attached housing and ~~multi-unit~~ multifamily developments, each residential dwelling shall be connected by walkway to the vehicular parking area, and common open space and recreation facilities.

(3) Where a site for proposed commercial, institutional, or multifamily development is located within ¼ mile of an existing or planned transit stop, the proposed

pedestrian circulation system must demonstrate a safe and direct pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

~~(3)~~ (4) Wherever required walkways cross vehicle access driveways or parking lots, such crossings shall be designed and located for pedestrian safety. Required walkways shall be physically separated from motor vehicle traffic and parking by either a minimum six-inch vertical separation (curbed) or a minimum three-foot horizontal separation, except that pedestrian crossings of traffic aisles are permitted for distances no greater than 36 feet if appropriate landscaping, pavement markings, or contrasting pavement materials are used. Walkways shall be a minimum of four feet in width, exclusive of vehicle overhangs and obstructions such as mailboxes, benches, bicycle racks, and sign posts, and shall be in compliance with ADA standards.

~~(4)~~ ~~(5)~~ Required walkways shall be paved with hard-surfaced materials such as concrete, asphalt, stone, brick, etc. Walkways may be required to be lighted and/or signed as needed for safety purposes. Soft-surfaced public use pathways may be provided only if such pathways are provided in addition to required pathways. (Ord. 2875 § 1.116.050, 2003)

17.152.070 Public use areas.

(1) Indicated in Development Plan – Dedication Requirements. Where a proposed park, playground, transit stop or other public use shown in a development plan adopted by the city is located in whole or in part in a subdivision, the commission may require the dedication or reservation of such area within the subdivision.

(2) Not Indicated in Development Plan – Dedication Requirements. Where considered desirable by the commission in accordance with adopted comprehensive plan policies, and where a development plan of the city does not indicate proposed public use areas, the commission may require the offer of a dedication or reservation of areas within the subdivision or sites of a character, extent and location suitable for the development of parks and other public use.

(3) Acquisition by Public Agency. If the subdivider is required to reserve land area for a park, playground, or other public use, such land shall be acquired by the appropriate public agency within 18 months following plat approval, at a price agreed upon prior to approval of the plat, or such reservation shall be released to the subdivider. (Ord. 2875 § 1.184.070, 2003)

(4) Transit Improvements

(a) Development proposals for sites that include existing or planned transit facilities, as shown in the adopted St. Helens Transportation System Plan or County Transit Plan, may be required to provide the following:

(i) A reasonably direct pedestrian connection between the transit facility and building entrances on the site. "Reasonably direct" is defined as a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
(ii) A transit passenger landing pad accessible to disabled persons.
(iii) An easement or dedication for a passenger shelter or bench if such facility is identified in the Clatskanie Transportation System Plan or the adopted County Transit Plan.
(iv) Lighting at the transit facility.

Columbia City

Columbia City is now being served by the Rainier-St. Helens flex-route. Recommended improvements to the MiniMart bus stop to support this service include bus stop signage and possibly a bus shelter.

Transit-related uses fall under the definition of "minor impact utility" in the city's Development Code. A minor impact utility includes "services and utilities which have minimal visual impact and are necessary to support uses allowed outright in the underlying zone such as power lines and poles, phone booths, fire hydrants, benches, unsheltered transit stops, sheltered transit stops containing 36 square feet or less, and mailboxes (Chapter 7.25 Definitions)." Minor impact utilities are allowed outright in the city's High Density Residential (R-3), Manufactured Home Park (MHP), Commercial (C), Industrial (I), and Public Land (PL) zones. In addition, no changes related to signage are required to support a public transit facility, as the city's definition of "sign" in the sign ordinance (Chapter 7.102) excludes information signs or structures authorized by federal, state, county or city authority.

In addition to permitting transit-related uses, the city's Site Development Review approval standards (Section 7.120.100) require that proposed developments provide for public transit if adjacent to an existing or planned transit route. Requirements for transit facilities are based on the proposal's size and location and may include bus shelters, turn outs, and connecting paths to the shelter.

K. Public transit:

1. Provisions within the plan shall be included for providing for transit if the development proposal is adjacent to existing or proposed transit route.

2. The requirements for transit facilities shall be based on:

   a. The location of other transit facilities in the area,

   b. The size and type of the proposal.

3. The following facilities may be required:

a. Bus stop shelters,

b. Turnouts for buses, and

c. Connecting paths to the shelters;

Columbia City Recommendations: While no code amendments are necessary to implement the CCCTP, the addition of pedestrian access and circulation requirements can enhance pedestrian safety and comfort and support the transit system. The following pedestrian connectivity requirements are generally applicable to development proposals, as well as specific to those proposals that are at or near to an existing or planned transit stop. Modifications and additions to the Site Development Review criteria (Section 7.120.100) include:

J. Vehicular ~~A~~ccess and circulation:

1. The number of allowed access points for a development shall be as determined by the City Engineer in accordance with access standards in Chapter 7.92 and standard engineering practices for city right of ways; as determined by Columbia County for county right of ways; and as determined by the Oregon Department of Transportation for access to Highway 30.

2. All circulation patterns within a development shall be designed to accommodate emergency vehicles.

K. Pedestrian access and circulation:

1. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all developments, except single-family detached housing (i.e., on individual lots), shall provide a continuous pedestrian system.

2. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable.

3. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, based on the following definitions:

a. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.

b. Safe and convenient. Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.

c. "Primary entrance" for commercial, industrial, public, and institutional buildings is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.

d. "Primary entrance" for residential buildings is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway which serves as a common entrance for more than one dwelling.

4. When proposed commercial, office, institutional or multi-family uses are located on a site within ¼ mile of an existing or planned transit stop, the proposed pedestrian circulation system must demonstrate a safe and convenient pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

~~K.~~ L. Public transit:

1. Provisions within the plan shall be included for providing for transit if the development proposal is adjacent to existing or proposed transit route.

2. The requirements for transit facilities shall be based on:

a. The location of other transit facilities in the area,

b. The size and type of the proposal.

3. The following facilities may be required:

a. Bus stop shelters,

b. Turnouts for buses, and

c. Connecting paths to the shelters~~;~~.

In addition to allowing and implementing planned transit facilities, the following changes are recommended to ensure that the County transit provider is included in the public approval process for proposed land use changes and development proposals that may impact transit service or facilities.

7.162.040 Noticing requirements.

A. Notice of a pending quasi-judicial public hearing shall be given by the Planning Director in the following manner:

1. At least twenty days prior to the scheduled hearing date, or if two or more hearings are scheduled, ten days prior to the first hearing, notice shall be sent by mail to:

c. Any governmental agency affected by the decision which has entered into an intergovernmental agreement with the City which includes provision for such notice or any public agency that provides a service within the city. Affected agencies could include the Department of Environmental Quality, the Oregon Department of Transportation, and Columbia County Rider;

Vernonia

The CCCTP recommends new fixed-route service from Vernonia to Hillsboro and PCC-Rock Creek and a weekday flex-route that travels from Vernonia to St. Helens via Scappoose three days per week and to Clatskanie via Mist the other two days per week. The CCCTP calls for a park-and-ride area in Vernonia to support these new services. Park-and-ride spaces may be accommodated through on-street parking along the side of City Hall.

The city Development Regulations (Ordinance 711) include a list of transportation improvements that are permitted outright in any zone (Section 16.130.C). This list includes "projects specifically identified in the TSP as not requiring further land use regulation (3.)." With the modifications to the city's transit policies, as proposed in this memorandum, any transit improvements associated with the recommendations of the CCCTP will be allowed outright.

Transportation-related regulations include requiring walkways between adjoining developments and from commercial, office and institutional uses to public right of ways (Section 16.140 Internal Connections). No provisions in the city code address providing connections to public transit.

Section 16.015 of the Development Regulations provides for the coordinated review of land use amendments and development proposals that potentially impact the transportation system; however the City does not explicitly require notification to Columbia County Rider.

Vernonia Recommendations: While no code amendments are necessary to implement the CCCTP, it is recommended that the city modify notification procedures to provide for coordinated review with the County transit provider. Recommended language below also includes development standards that require accommodating planned transit facilities and providing safe and convenient access from commercial, office, institutional, and multi-family uses to public transit stops.

Section 16.015 [Public Notice and Coordinated Review]

A. A proposal to amend the Vernonia Comprehensive Plan or Zoning Ordinance to change or adopt a new regulation shall be submitted to the Director of the Department of Land Conservation and Development and the ODOT District Manager at least 45 days before the final City Council hearing on adoption.

B. The City shall provide written notice to the ODOT District Manager ~~and other review~~ of proposals that may potentially impact a transportation facility or service. Columbia County Rider shall receive notice of proposals that potentially impact transit ridership or facilities. Notice shall be provided at least 20 days prior to the public hearing or decision on the application.

C. Land use review associated with proposed transportation facilities, services, and improvements shall be coordinated with other jurisdictions and agencies, such as Columbia County and ODOT, when appropriate.

Section 16.130 [Transportation Improvements]

E. Sites that include existing or planned transit facilities may be required to provide the following:
   1. A reasonably direct pedestrian connection between the transit facility and building entrances on the site. "Reasonably direct" is defined as a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
   2. A transit passenger landing pad accessible to disabled persons.
   3. An easement or dedication for a passenger shelter or bench if such facility is identified in the Vernonia Transportation System Plan or the adopted County Transit Plan.
   4. Lighting at the transit facility.

Section 16.140 [Internal Connections]

B. Connections to the right-of-way.

   1. Every building shall include a pedestrian walkway connected to the public right-of-way. A walkway shall be provided for every 300 feet of street frontage.
   2. When the proposed commercial, office, institutional or multi-family uses are located on a site within ¼ mile of an existing or planned transit stop, the proposed pedestrian circulation system must demonstrate a safe and direct pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

PROJECT LISTINGS BY JURISDICTION

The following two tables list each of the projects, by jurisdiction, for inclusion in their local Comprehensive Plan and TSP. The first table lists projects resulting from this planning process. The second table lists projects that were identified through the Lower Columbia River Rail Corridor Study.

Table 1 US 30 TRANSIT ACCESS PLAN PROJECTS

Location	Project	Time Frame	Cost Estimate
COLUMBIA COUNTY			
Deer Island Store	Construct park-and-ride	0-5 years	$36,000
Goble Tavern/Goble Marina	Guardrail installation, intersection illumination, possible shoulder widening	0-5 years	$96,000
Alston Store	Bus shelter and associated amenities	0-5 years	$8,100
Marshland	Stop improvements, including shoulder widening and improved lighting	5-10 years	$49,000
Woodson	Stop improvements, including shoulder widening	5-10 years	$34,000
Westport	Bus shelter and associated amenities	0-5 years	$8,700
SCAPPOOSE			
Fred Meyer	Bus shelter and associated amenities	0-5 years	$8,100
Chinook Plaza	Bus shelter and associated amenities, sidewalk and curb ramp construction	0-5 years	$16,000
City Hall	Transit center	10-20 years	$1,250,000
City Hall	Park-and-ride facility	5-10 years	$470,000-918,000
ST. HELENS			
Safeway/Rite-aid	Bus shelter and associated amenities	0-5 years	$8,500
Safeway/Rite-aid	Sidewalk and curb ramp construction/repairs (non-transit need)	0-5 years	$36,000

Ace Hardware	Sidewalk and curb ramp construction/repairs	0-5 years	$67,000
Stimson Site	Construct transit center and park-and-ride, including frontage improvements, and intersection improvements	0-5 years	$2,344,800
COLUMBIA CITY			
City Hall	Bus shelter and associated amenities	0-5 years	$8,700
MiniMart	Bus shelter and associated amenities	0-5 years	$8,100
RAINIER			
Rainier Transit Center	Improvements to transit center and park-and-ride facilities	5-10 years	$19,000
CLATSKANIE			
Clatskanie Transit Center	Improvements to transit center and park-and-ride facilities	5-10 years	$187,000
Clatskanie Safeway	Bus shelter and associated amenities	0-5 years	$8,100

Table 2 LOWER COLUMBIA RIVER RAIL CORRIDOR STUDY PROJECTS

Location	Project	Time Frame*	Cost Estimate
COLUMBIA COUNTY			
US 30/Johnsons Landing Rd	Upgrade railroad crossing equipment: new constant warning time activation equipment, standby battery, and rectifier	10-20 years	$76,000
US 30/West Lane Rd	Install 75-foot right-turn escape bay for westbound traffic, improve pavement markings, prohibit westbound left turn and through movements for trucks only	10-20 years	$20,000
US 30 at spur track crossing north of Columbia City	Replace control circuitry: requires new activation equipment, shunt-enhancing equipment, new track leads, new batteries, and battery charging equipment	0-5 years	$76,000
US 30/Nicolai Rd	Improve signage and pavement markings at grade crossing, replace old tracks, repair/replace	10-20 years	$290,000

	crossing surface, install flashing railroad crossing lights and gates		
US 30/Nicolai Rd	Install 75-foot escape bay for westbound traffic	10-20 years	$19,000
US 30/Nicolai Rd	Widen US 30 to provide northbound and southbound left-turn lanes	10-20 years	$1,137,000
Graham Rd at railroad crossing	Install flashing railroad crossing lights and gates	5-10 years	$190,000
Kallunki Rd/ Quincy-Mayger Rd	Install flashing railroad crossing lights and gates	10-20 years	$190,000
Kallunki Rd at spur track crossing	Install flashing railroad crossing lights and gates	10-20 years	$190,000
Hermo Rd at railroad crossing	Install flashing railroad crossing lights and gates	10-20 years	$190,000
US 30/Pt. Adams Rd	Replace existing flashing railroad crossing lights, including new shelter grounding equipment and circuitry	5-10 years	$190,000
US 30/Marshland Rd (Co. Rd. 198)	Provide railroad crossing signs for Marshland Road, remove vegetation blocking sight distance at railroad crossing	0-5 years	$4,000
US 30/Marshland Rd (Co. Rd. 198)	Provide eastbound left-turn lane, 75-foot southbound right-turn escape bay	10-20 years	$569,000
US 30/Marshland District Rd #4119	Replace grade crossing material with concrete or asphalt, provide new ties and panels with concrete crossing surface, install STOP sign on approach to US 30	10-20 years	$100,000
US 30/Woodson Rd	Install flashing railroad crossing lights and gates, improve railroad crossing signage and markings	0-5 years	$196,000
US 30/Woodson Rd	Widen US 30 to provide westbound and eastbound left-turn lanes, provide 65-foot southbound right-turn escape bay	5-10 years	$1,133,000
SCAPPOOSE			
US 30/High School Way	Replace obsolete railroad crossing gate, standby battery, and rectifier; provide pedestrian crossing gates and tactile yellow strips; remove	0-5 years	$121,000

	vegetation		
US 30/High School Way	Lengthen northbound right-turn lane by 100 feet	0-5 years	$25,000
US 30/Maple St	Add flashing railroad crossing lights on cantilever, improve pavement markings, flatten grade on railroad crossing approach, install pedestrian crossing gates and tactile yellow strips, replace pedestrian crossing panels	5-10 years	$224,000
US 30/Columbia Ave	Lengthen northbound right-turn lane by 110 feet, install tactile yellow strips where the sidewalk crosses the railroad tracks	0-5 years	$29,000
ST. HELENS			
US 30/Millard Rd	Signalize intersection with interconnection to railroad crossing, provide pedestrian grade crossing of railroad	5-10 years	$295,000
US 30/Gable Rd	Lengthen southbound left-turn lane by 210 feet	0-5 years	$56,000
US 30/Gable Rd	Pedestrian/bicycle overpass of US 30 and the railroad	10-20 years	$6,100,000
Railroad yard between Gable Rd and Columbia Blvd	Fence the US 30 side of the railroad yard	0-5 years	$134,000
US 30/Columbia Blvd	Lengthen northbound right-turn lane by 65 feet, lengthen southbound left-turn lane by 215 feet	0-5 years	$69,000
US 30/St. Helens St	Replace obsolete railroad crossing gates, install pedestrian grade crossing	0-5 years	$135,000
US 30/Wyeth St	If not closed for future Quiet Zone, signalize the intersection and provide interconnection to the railroad crossing	5-10 years	$250,000
US 30/Deer Island Rd	Lengthen southbound left-turn by 150 feet, install pedestrian grade crossing	5-10 years	$108,000
COLUMBIA CITY			
US 30/I St	Install 75-foot escape bay for westbound traffic, remove crosswalk markings	10-20 years	$24,000

RAINIER			
US 30/Veterans Way	Install 75-foot escape bay for westbound traffic	5-10 years	$19,000
CLATSKANIE			
Depot Street at railroad crossing	Install flashing railroad crossing lights and gates	5-10 years	$190,000

*Timeframe based on Rail Corridor Study's concern level: Concern Level A (most concern) = 0-5 years, Concern Level B (some concern) = 5-10 years, Concern Level C (least concern) = 10-20 years, except for particularly inexpensive projects (0-5 years) and the >$1 million projects (moved out in time so that potential funding sources can be identified)

OUTREACH PROGRAMS

The intentions of the outreach programs are to increase public knowledge of and support for transit in Columbia County. Small transit operators like Columbia County Rider are often limited by a lack the amount of information disseminated to the public, usually through a lack of familiarity with the services provided. Many Columbia County residents are unaware of the public transit options provided by Columbia County Rider, including service to Portland and park-and-ride facilities. In fact, in one stakeholder meeting it was discovered that many in the group were not aware that CC Rider even provided park-and-ride facilities. Several in the group were eager to explore the service as an opportunity to simplify their daily commute.

Communicating the transit service opportunities, particularly improvements to service, is essential to maintaining existing ridership and attracting new riders. In some cases, past experiences such as infrequent service or insufficient routes will establish riders' perspectives of the system, causing them to give up on local public transit. Often in these situations, CC Rider may correct the problem without the rider's knowledge wasting the opportunity to attract his or her trips. Effective outreach strategies are necessary to distribute this information to existing and potential riders alike.

Another reason for establishing robust outreach programs is to garner support for the transit provider, even among those who do and will not ride the system. Public transit is funded in large part by taxpayer money, something that is conceptually and theoretically supported by the public. If Columbia County residents perceive CC Rider to provide an essential and useful service to the community at large, they are more likely to support tax measures and rate increases where necessary, even if they are not ever likely to benefit directly. Maintaining a positive public image is essential for gathering and preserving a positive reputation.

Customer information should be widely available to customers in a variety of formats in order to have the maximum reach to all target audiences. Information should be available through the traditional means, including printed schedules available on the vehicles, at stops, and at government offices and buildings, such as employment centers, social service agencies, libraries, etc. Non-governmental entities that work with the community should be contacted to extend the reach of Columbia County services such as churches and community centers, neighborhood associations, and senior centers. Employers along US 30 should be contacted to hold transit fairs for their employees, and to encourage them to make the information available to their employees through posted information and brochures at the worksite in employee break-rooms.

The outreach programs recommended in this Implementation Plan are broken down by communication media. Each medium presents its own opportunities and challenges, and each is important for reaching necessary target markets. Table 33**Error! Reference source not found.** summarizes the outreach programs identified in this Plan.

Table 33
Summary of CC Rider Outreach Program

Medium	Program	Description
Electronic	Route and Schedule Updates	Make frequent and timely updates to the Schedules & Routes page of the website.
	Design/Maintenance	Maintain professional website.
	Trip Planner	Introduce transit trip planning tool for website users.
	Text/Email Alerts	Send cell phone text and email alerts regarding schedule changes and delays directly to users who sign up.
Print	Route and Schedule Updates	Make frequent and timely updates to print routes and schedules.
	Route and Schedule Distribution	Distribute routes and schedules on all buses and at public institutions.
	Mail Alerts	Send news and updates to mail recipients who sign up to receive them.
Signage	Bus Stop Branding	Install coordinated and consistent branding at all bus stops and transit centers.
	Routes and Schedules	Post route and schedule information at all bus stops and transit centers.
	Park-and-Ride	Establish fixed signage advertising park-and-ride facilities.
News Media/Advertising	News Coverage	Work with local media to distribute transit information.

The following sections discuss the Implementation Plan outreach programs.

Electronic

Columbia County Rider's website is the first and most important tool for communicating basic rider information, including services, schedules, fares, and emergency information. The website is a dynamic tool for delivering all relevant information in one convenient location and should make riding transit easier. The basic information, such as schedules and fares for all services, should be easily accessible from the landing page at www.columbiacountyrider.com. It is essential that this information is updated as soon as any changes are announced. Currently, new service and schedule changes are updated infrequently, and the announcements are posted to the "news" section. For many internet users, it is not intuitive to search the "news" page for rider information, particularly for people new to the service. These changes should be promptly made to the schedule and/or fare sections of the website. Moreover, the homepage is an excellent location to announce new service or other major announcements as it receives the most traffic.

A relatively simple rider tool common to many transit agency websites is a trip planner or route planner. Using a trip planning tool a rider can browse to the website, type in their desired origin and destination information including the time of travel, and generate a recommended trip schedule. The output will include the time and location to catch the bus, any transfers that may be

required, and the time and location of drop-off. It will also identify the estimated fare for that trip. A tool such as the one described here is very useful for riders looking to quickly identify their best option for travel without needing to identify which route they need and then navigate the schedule. This will become especially useful as CC Rider grows and provides expanded service. Google has been providing this service to transit agencies across the country and is an option for CC Rider.

Website maintenance is important to presenting a professional image as well as effective communication of information. With the growing reliance on the internet, CC Rider's webpage is the first impression most people have of the transit agency. The actual appearance of the page, including the design and formatting, have a profound effect on people's perception of the organization much in the same way that bus maintenance and presentation influence riders' impressions. Ensuring up-to-date information on the page also improves this perception.

With cell phones and computers becoming an integral part of people's lives, transit agencies can use these tools to quickly and efficiently communicate with transit riders. Regular riders can sign up for automated text message and e-mail alerts for updates on service advisories from CC Rider. This web-based messaging system sends e-mail and text messages to people who have opted in to know about delays and service interruptions in real time. This service for riders is important in keeping customers informed about their upcoming trip, particularly for those who are most familiar with the service and may not visit the webpage regularly.

Over the next 1-5 years CC Rider should allocate funds to retain professional web services that ensure that the website is current. In addition, this resource would pursue Google Transit and other technology options that could be implemented to improve customer service.

Print

Not all public transit users have easy access to the internet, especially elderly and low-income riders – two primary market groups for CC Rider. Therefore, continued production of print schedules is necessary to communicate service. Route maps and schedules are currently printed for all CC Rider services and updated as appropriate. Schedules should be distributed on buses and made available at the transit offices and other institutions such as community centers, churches, government buildings, and senior centers. Printed schedules should also be available on all CC Rider buses.

Promptly printing new schedules with any service additions or changes will help disseminate rider information. Regular riders should be given the opportunity to sign up to receive updated schedules and other alerts by mail.

Signage

Consistent branding and signage at all CC Rider bus stops will provide the dual effect of alerting riders to bus stop locations and spread the agency's public image. Currently, bus stops are identified inconsistently, sometimes with a shelter, other times with a small sign. CC Rider should make an effort to spread their brand to all bus stops, using as obvious signage as is reasonable.

Bus route and schedule information should be posted at all CC Rider bus stops. Currently there is no way to discern route or schedule information at the bus stop itself, making it virtually impossible to use the system without looking up the information at a computer or visiting the transit office. Providing route information alerts potential transit users to the service opportunities. Schedule information is useful for riders who are familiar with the system but are not sure exactly when the next bus will arrive.

Park-and-ride facilities are currently unlabeled due to the nature of the shared use arrangement in place at most stations. To the extent possible, however, it is important to alert existing and potential users to this valuable commuting opportunity. Placing a park-and-ride sign on the side of the street or in the parking lot lets transit riders know that they can reliably leave their car at the station and ride transit. Making the service look official both assures riders and attracts new users.

News Media/Advertising

The most difficult market to reach is those residents who do not consider transit as a feasible or accessible transportation option. The other media discussed in this section are effective for those groups that seek out transit information, but they must initiate the effort. To reach riders who are unaware or who do not readily consider transit it is necessary to seek out mass media such as newspaper or television. Public advertising campaigns can be expensive and do not always yield effective results. However, small advertisements in the local newspapers are low cost solutions that inform the public of the service options and also help connect CC Rider to the community. Another opportunity is the billboard in Scappoose which announces all of the shops and services at the shopping center. CC Rider's logo on the billboard would build the community recognition of the service as well as inform potential riders of the transit stop.

In addition to advertising, CC Rider can contact local newspapers throughout Columbia County to get coverage of service changes or additions. In fact, a media campaign coinciding with adoption and implementation of the County-wide Transit and US 30 Transit Access Plans will promote the new service and general awareness. News coverage is free and can be more effective than advertising. A news story may also generate conversation among residents which can establish word-of-mouth communication as well.

Estimated Cost to Implement Recommendations

Many of the recommendations above can be implemented for a nominal cost by sharing County staff or resources, or using volunteers. Other costs, such as advertising, will have unavoidable costs.

Table 34
Summary of Implementation Costs

Medium	Program	Estimated Annual Cost
Electronic	Website: Route and Schedule Updates, Design, Maintenance	$9,000/Year
	Trip Planner	$2,500
	Text/Email Alerts	$120/Year
Print	Maps and Schedules	$20,000/Year (Printed Twice Yearly)
	Mail Alerts	$5,000/Year
Signage	Bus Stop Branding	$150/Stop
	Customer Information at Stops	To Be Determined
News Media/Radio	News Coverage/Advertising	No Cost/Low Cost Partnerships

EVALUATION MECHANISM

The standard mechanism for evaluating and monitoring agency operations in the transit industry is performance reporting. The *TCRP Report 88: A Guidebook for Developing a Transit Performance-Measurement System*[17] describes evaluation tools that are used by transit agencies around the country. The guidebook describes the benefits of performance measurement, provides a process for implementing a performance measurement system, describes case studies, describes the characteristics of an effective performance measurement system, and categorizes and critiques more than 400 performance measures. Performance measurement data provide transit agency management with objective assessments of current circumstances past trends, existing concerns, and unmet needs. Key management uses of a performance measurement system, as identified in the *Guidebook* include:

- Service monitoring
- Evaluation of economic performance
- Management functions
- Internal communications
- Development of service design standards
- Communication of achievements and challenges
- Noting of community benefits

Not all of these types of measures are measures are needed for smaller transit agencies, such as Columbia County Rider. The performance measures identified below cover the basic reporting needs for any agency. As the system develops and matures, other measures can be added to broaden the level of understanding of how the transit system performs within the community.

PERFORMANCE MEASURES

Performance measures are used because they can provide perspective, understanding, and context to historical and ongoing trends within the transit agency. A structured performance measurement system will help CC Rider select and distill key data items to better understand how the system is working and to identify areas needing improvement. CC Rider has already initiated this process as a result of creating the Community-wide Transit Plan. This section of the implementation plan identifies appropriate performance measures for annual monitoring of the system.

[17] Kittelson & Associates, Inc., Urbitran, Inc., LKC Consulting Services, Inc., MORPACE International, Inc., Queensland University of Technology, and Yuko Nakanishi. *TCRP Report 88: A Guidebook for Developing a Transit Performance-Measurement System,* Transportation Research Board, Washington, DC (2003).

The following measures were selected because the data is typically collected as a part of on-going operations, and because they provide a good overview of the system. They can be reported at different levels of aggregation, depending on the audience: more detailed (e.g. route and trip specific ridership) information should be provided to agency staff, while decision-makers and the public should receive more general and comprehensive data (e.g. average weekday ridership for the month).

On-Time Performance Ratio

Definition: A transit vehicle is considered "on time" if it departs a location within a certain number of minutes after and/or before the scheduled time. Many agencies consider an early departure not to be on time, to discourage operators from leaving a stop before its scheduled time. The most common definition, and the one used in the *Transit Capacity and Quality of Service Manual* (TCQSM),[18] is 0 minutes early to 5 minutes late. On-time performance is usually measured only for specific locations (timepoints) for which a schedule is published. For demand-responsive service, the agreed-upon pickup time is used.

Data Requirements: Driver logs; field surveys (e.g., by traffic checkers performing point checks or ride checks)

Assessment: This measure can be used both diagnostically and as a tool to assess the experience of customers. Since substantial data collection efforts are necessary, manual data collection can become quite expensive as well as error-prone. If data collection is automated, route-level and even operator-level performance can be determined. Note that precision (e.g., accuracy of checker watches) is important since even one minute early is considered by some agencies as not on time.

Missed Trips

Definition: Missed trips can occur due to mechanical breakdowns or driver absences. They can have a negative impact on the perceived reliability of transit service and can result in long wait times, missed transfers, etc. Missed trips can also reflect inefficiencies in service. In demand-responsive service, a *missed trip* occurs when a trip is scheduled, but no vehicle shows up to collect the passenger. For ADA services, a pattern or practice of missed trips indicates a capacity constraint that is not allowed.

Data Requirements: Schedule; incident/dispatching logs

[18] Kittelson & Associates, Inc., KFH Group, Inc., Parsons Brinckerhoff Quade & Douglass, Inc., and Katherine Hunter-Zaworski, *TCRP Report 100: Transit Capacity & Quality of Service Manual, 2nd Edition*, Transportation Research Board (2003).

Assessment: Missed trips are easy to track and affect passenger satisfaction and system productivity. While *on-time performance* presents a general assessment of system reliability, *missed trips* can be used internally by an agency to monitor one of the factors that influences the broader measures.

Complaint (Compliment) Rate

Definition: The number of passenger complaints or compliments per a specified number of hours, passengers, or trips. These measures report the amount of customer feedback received on the service that was provided over a set period of time. The number of complaints and/or compliments received can be reported as a rate or a simple total.

Data Requirements: Service hours; boardings; passengers; documented complaints/compliments

Assessment: Complaint- and compliment-based measures are more subjective, as they are a collective measure of customer perceptions. They are based upon only those riders who make the effort to comment. Their perceptions are not necessarily indicative of the service performance perceptions of all riders. However, tracking passenger feedback obtained through a comment process can help an agency obtain useful insights on issues that are important to its customers, without entailing the expense of a customer satisfaction survey.

Service Hours

Definition: Service hours are defined as all of the hours a vehicle operates during a day, from the time it leaves the garage until the time it returns again. The number of hours that transit vehicles are in service, including revenue hours (transporting passengers) and deadhead hours (layovers and traveling in revenue service without passengers).

Data Requirements: Driver logs; vehicle assignment logs.

Assessment: Service hours are a prime determinant of the total direct cost of resources expended. It includes the hours that the vehicles are providing service and going to and from revenue service locations. The number of service hours is generally based upon providing sufficient service to meet demand. Lower levels of productivity for demand-responsive service require a higher level of service hours to meet demand. Service hours are often the baseline for determining productivity (passenger per service hour) and marginal service cost (cost per service hour). Budgeting estimates and costs often depend on the amount of estimated service hours. Many contracts are based on the number of service hours provided. Contractors and agencies providing direct service will base budgeted costs on estimated service hours. All direct costs will be based on the provision of service, including labor, maintenance, insurance, and fuel.

Revenue Hours

Definition: The number of transit vehicle hours during which passengers are being transported.

Data Requirements: Driver logs

Assessment: Revenue hours is a measurement used by the NTD and excludes vehicle hours in which revenue is not provided. *Productivity* is often measured by agencies using *passengers per revenue hour* rather than *passengers per service hour*. Given that revenue hours are fewer than service hours, the productivity ratio is higher when revenue hours are used. However, the use of revenue hours masks the time when vehicles are in revenue service but no passengers are being transported.

Response (Access) Time

Definition: Response time is a measure of how much advance planning passengers must do to take a trip on demand-responsive service. It reflects convenience to passengers.

Data Requirements: Dispatcher logs

Assessment: Response time is best suited for (1) systems that intend to provide same-day service to passengers (to monitor performance) and (2) complementary paratransit services (to monitor compliance with ADA requirements). It measures how soon service was provided, but not whether the times that pickups and drop-offs were scheduled actually met passengers' needs or whether service was actually provided at the promised time (e.g., missed trips, on-time performance).

Service Denials

Definition: A service denial is specifically defined by the ADA as failure to provide a scheduled trip within an hour of either side of the requested time to travel. Should no trip be available in that 2-hour "window," the request for service is termed a "denial."

Data Requirements: Scheduling software records of all trip requests; reservation agent logs

Assessment: Service denials should be measured as the number of denials divided by a total of trip requests (all or casual). A pattern or practice that allows for a substantial number of service denials is forbidden under the ADA, for ADA paratransit services. A pattern of denials of paratransit service during an agency's prescribed reservation period, specifically including next-day reservations, is seen under the ADA as a capacity constraint.

Pass-Ups

Definition: The number of passengers unable to board a crowded bus when it arrives at a stop.

Data Requirements: Operator logs; customer or on-board surveys.

Assessment: Pass-ups are a source of frustration to customers, as their overall travel time increases by the time they must wait for the next vehicle, with no guarantee of space on that vehicle. Pass-ups may indicate the need for schedule adjustments to accommodate passenger demand peaking or for actions to address bus bunching on routes with short headways.

Road Calls

Definition: A road call occurs when a maintenance vehicle is required to tow or assist a revenue vehicle while it is in service. It is assumed that these incidents are unplanned occurrences.

Data Requirements: Maintenance records; vehicle miles

Assessment: A key goal of effective preventive maintenance is to minimize the occurrence of unplanned road calls by ensuring that vehicles are in proper mechanical order. Older vehicles that have reached the end of their specified useful life will tend to have higher maintenance levels, including road calls. Improper preventive maintenance consistently leads to higher levels of unplanned maintenance events, i.e., road calls. Vehicles that are poorly manufactured, or have recurring mechanical or other problems, can also result in high levels of road calls.

Spare Ratio

Definition: The spare ratio is the number of spare vehicles (*fleet size* minus the *number of vehicles in maximum service*) divided by the *fleet size*.

Data Requirements: Number of vehicles in maximum service, total fleet size

Assessment: A relatively large spare ratio may indicate an inefficient use of resources, since more vehicles have been purchased (and must be stored and maintained) than are needed for normal operations. On the other hand, too small a spare ratio may indicate potential service reliability problems, as not enough vehicles are available to substitute for other vehicles undergoing regular maintenance or for vehicles that have broken down during the day. Because the inputs to the measure change infrequently, this measure does not need to be calculated any more frequently than annually.

Ridership

Definition: This measures the number of individuals boarding and/or alighting at a stop, boarding along a route, or boarding the system as a whole. Ridership is usually measured in terms of unlinked trips, where all boardings are counted.

Data Requirements: Driver logs; scheduling dispatch reports

Assessment: Ridership is a basic measure for transit, on which many other types of economic performance measures are based.

Ridership can be assessed much differently in a demand-responsive service than in a fixed-route service. Increases in ridership in fixed-route service are normally seen as positive. Such increases normally indicate both strong community support and more individuals benefiting from the service, and these increases result in a reduced cost per passenger. Economies of scale usually minimize the increase in overall service cost. Encouraging increasing demand is generally a positive outcome that indicates improving agency success. Ridership increases in demand-responsive systems are different.

Increases in ridership raise service costs and result in minimal economies of scale. As a result, increases in demand are often seen as negative events resulting in increasing financial costs. While general demand-responsive services can limit trips in a variety of ways, ADA paratransit services cannot. Increasing levels of required paratransit service can consume resources from other areas of a transit system's operation, requiring reductions in service to rail and bus systems. The cost per trip of demand-responsive service is normally several times higher (especially in larger transit systems) than that of fixed-route or fixed-guideway service.

Cost Effectiveness

Definition: Cost-effectiveness performance measures evaluate a transit system's ability to perform its core functions: transport people in a cost-effective fashion. Most of the measures in this family are self-explanatory; the *farebox recovery ratio* is fare revenue divided by total expenses, and the operating ratio is all revenue other than tax revenue divided by total expenses. The former is an indication of how much of the agency's costs are covered by passenger fares; while the latter is an indication of the amount of local subsidy required, after non-fare revenue (e.g., advertising and lease revenues) is accounted for. Some agencies also include FTA operating assistance as part of their non-fare revenue when calculating the *operating ratio*.

Data Requirements: Financial and operating data

Assessment: These measures provide one of the core evaluations of a transit system's overall performance. They are easily calculated and understood and are frequently used as part of a peer analysis.

While *cost per passenger* in fixed-route systems often declines sharply as ridership increases, the same is often not true for demand-responsive service. Improved scheduling efficiency (e.g., passenger grouping, flexible pickup and travel times, non-circuitous routing, and minimal backtracking) can allow more passengers to be transported in the same or fewer number of service hours, reducing the cost per passenger. However, an increase in the *cost per passenger per hour* may occur if demand is reduced. It should be noted that reducing demand-responsive *cost per passenger* can often be accomplished by reducing service quality: as the *cost per passenger per trip* is reduced (positive service efficiency), service reliability declines (negative customer service).

Cost per passenger is traditionally much higher for demand-responsive service than it is for fixed-route service. The level of productivity is lower, meaning that labor, maintenance, and other costs are spread over fewer passengers. There is also a larger support infrastructure specifically required for ADA paratransit. This administrative and support infrastructure includes reservation agents, dispatchers, and schedulers. Demand-responsive service requires a much lower ratio of dispatchers to drivers, and the fluid nature of demand-responsive scheduling requires more ongoing effort than fixed-route scheduling.

Cost per passenger is one of the most common means for transit agencies and service providers to determine contract costs for demand-responsive service provision.

The *farebox recovery ratio* and *operating ratio* are used to strike a balance between keeping transit service affordable and having an agency (and particularly its direct users) cover as much of the costs as possible.

Cost Efficiency

Definition: Unlike cost-effectiveness measures, cost-efficiency measures are not related to service consumption. They simply measure a transit system's ability to provide service outputs (e.g., vehicle hours, miles, etc.) as a function of the service inputs (e.g., labor, capital, etc.).

Data Requirements: Financial and operating statistics

Assessment: These types of measures are very common and are utilized by virtually all transit systems when evaluating system-wide performance. However, these measures should be viewed with caution, because they do not measure a

transit system's ability to meet the needs of its passengers. These measures only evaluate how efficiently a system can put service on the street, irrespective of where the service is going or how much it is utilized.

Productivity

Definition: Productivity is the ratio of total passengers transported divided by total revenue or service hours provided during a given period. The former is the inverse of *cost-effectiveness*.

Data Requirements: Driver logs

Assessment: Passenger productivity is a measurement that impacts service cost. While productivity on paratransit is normally lower than fixed-route services, significant productivity enhancements can result in dramatic service cost savings and increases in service. The logistical and regulatory limitations of demand-responsive service (especially ADA complementary service) limit the maximum level of productivity. Productivity rates of greater than 5 passengers per hour in small cities and 2.5 passengers per hour in larger cities are rare.

Demand-responsive service productivity is based upon an array of factors, including service area, density of passengers per square mile, ability to group trips, level of cancellations and no-shows, routing efficiency, traffic, and many others. Maximizing productivity in larger systems involves using scheduling software and adjusting the resulting schedules manually with schedulers and dispatchers. It may also require effective implementation of policies that reduce cancellations and no-shows.

Person Capacity Percentage

Definition: This measure is similar to the volume-to-capacity ratio measure used in automobile modal analysis. It typically reflects the percentage of *person capacity* being utilized, subject to assumptions about vehicle occupancies and passenger arrival rates.

The number of people that can be carried under current conditions is

> (Number of vehicles scheduled) * (Average maximum schedule load per vehicle) * (peak hour factor)

Data Requirements: Person capacity; ridership; vehicle maximum schedule load; scheduled frequency; facility vehicle capacity; passenger volume data

Assessment: An agency's passenger loading standards directly affect person capacity—the more crowding that is tolerated, the more people that can be carried with a

given number of transit vehicles. It is also suited for use in comparisons of the costs of adding transit capacity versus adding roadway capacity.

It is important to apply an appropriate peak-hour factor to the calculation of person capacity to get a realistic estimate of the number of people that can be carried consistently during an hour. Not incorporating a peak-hour factor into design calculations may lead to over-optimistic estimates of the number of people that can be carried, resulting in pass-ups and platform queuing during peak periods.

Summary

Since the value of these measures are derived directly from the data fed into them, it is important to outline consistent data-collection strategies. It is recommended that CC Rider implement this program on a smaller-scale test project in order to identify challenges related to one or more of the measures. This pilot project can be used to refine the program according to the information uncovered in the test and prepare it for full implementation. Ongoing evaluation of data collection is important to maintain reliable and useful evaluation programs. (See Refinement Studies: Reporting Systems.)

The measures identified above can be used to evaluate system performance on an annual basis and track improvement and areas of concern. To really benefit from these measures, though CC Rider should set performance targets for each of these measures against which their performance can be evaluated. (See Refinement Studies: Service Standards.)

The performance measurement program described in this plan represents a first attempt to develop an evaluation mechanism for CC Rider. In order to maintain an effective program, though, this program should be reviewed periodically. CC Rider should incorporate a performance measurement review process into preparation for future planning efforts. This tactic will provide the agency with a regularly scheduled opportunity to evaluate the effectiveness of its performance measurement program and revise it as necessary.

REFINEMENT STUDIES

The review conducted in the development of the Columbia County Community-wide Transit and US 30 Transit Access Plans has identified a few additional activities that would strengthen the operations and success of the transit system over time. These studies are described briefly, below:

- Service Standards. The performance monitoring above provides an annual tracking of the performance of the transit system. In addition, service standards that identify expected performance and trigger points for reviewing service would be beneficial. For example, the performance measure "passenger load" could have a service standard of an 85% as the maximum average seated load. Once that threshold is reached, the service would be reviewed for adding a larger vehicle or additional service. This approach provides a mechanism for determining when it is appropriate to increase or reallocate service to other areas of the system, facilitating future service discussions.

- Reporting Systems. Currently CC Rider does not have formal or consistent data recording and management systems. This hampers the ability to monitor performance, justify operational expenditures, quickly identify service and systems that need improvement, and anticipate future needs. The transit system has been growing in the service it provides and has additional service improvements slated in the near future. As the system continues to grow, the data reporting requirements will grow and the need to have a responsive data management system will become more critical. The County should consider a program to develop these reporting systems now, to support not only current operations, but to demonstrate accountability and position themselves for the future.

- Transit Service District and Financial Plan. The Community-wide Transit Plan identified potential funding sources that could be established and dedicated to public transit. In addition, surveys have shown public support for tax measures to support transit. In conjunction with County staff, a detailed financing plan that also addresses formation of a transit district should be developed. Without this plan in place, it will be difficult to initiate a successful campaign to establish solid, dedicated revenues for transit and achieve the transportation goals of the county.

- Plan Updates. As the Columbia County Community-wide Transit and US 30 Transit Access Plans are implemented, agency officials will gain a clear idea of how they might improve transit services in the future. This feedback can occur both in an on-going manner through the annual performance measures review, and as part of scheduled updates to these Plans. Moreover, although the programs and policies prescribed here are intended to be dynamic and responsive, system patterns and demands may change unexpectedly over time. The Columbia County Community-wide Transit Plan should be revisited every three years to prevent it from becoming stale and irrelevant. It is recommended that Columbia County perform full updates to the Plans every 5-10 years.

Section 10
Transit Facility Site
Selection and Design

Transit Facility Site Selection and Design

This section summarizes the work done to assist the County in identifying a site for a transit facility with a park-and-ride lot and to develop a conceptual site plan. A preferred site was selected and an agreement to purchase the site has been reached. The preliminary and refined concept plans have been packaged separately from this report.

SITE DESIGN AND SELECTION CRITERIA

A preliminary site design program was developed through meetings with Janet Wright, Columbia Rider Transit Director, and Henry Heimuller, Columbia Rider Transit Coordinator. The design program addressed the functional elements of a transit facility (including maintenance facilities and overnight bus parking) and assumed that all functions would be accommodated on a single site. The specific design elements were organized under three functional aspects of a good transit center.

Transit Service and Facilities

- Passenger loading for 3-4 coaches
- Passenger shelters and information
- Park-and-Ride lot with 50-75 spaces
- Out-of-service parking for 20 buses
- Parking for employees and drivers
- Bus bay for future Greyhound freight service

Site Design

- Separate bus and park-and-ride entries
- Night lighting
- Secure gates and fences
- Bike storage

Support Buildings

- Administration office
- Maintenance building

A typical building program was developed for the administration offices and a maintenance building. Conceptual floor plans are included in the graphics to accompany this report. The maintenance facility could be a modular, prefabricated building that can be expanded later as needed.

Preliminary site selection criteria were also established. The key criteria that ultimately influenced selection of preferred site were:

- Size and configuration of the property
- Highway 30 access
- Bus operations
- Passenger vehicle access
- Visibility
- Availability of the property for acquisition

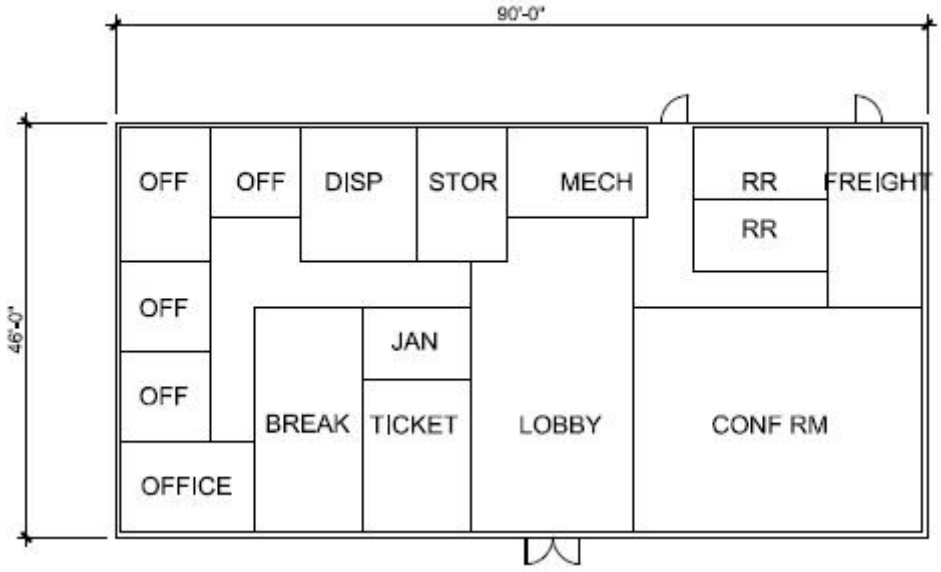


Figure 24 Typical Administration Office Building

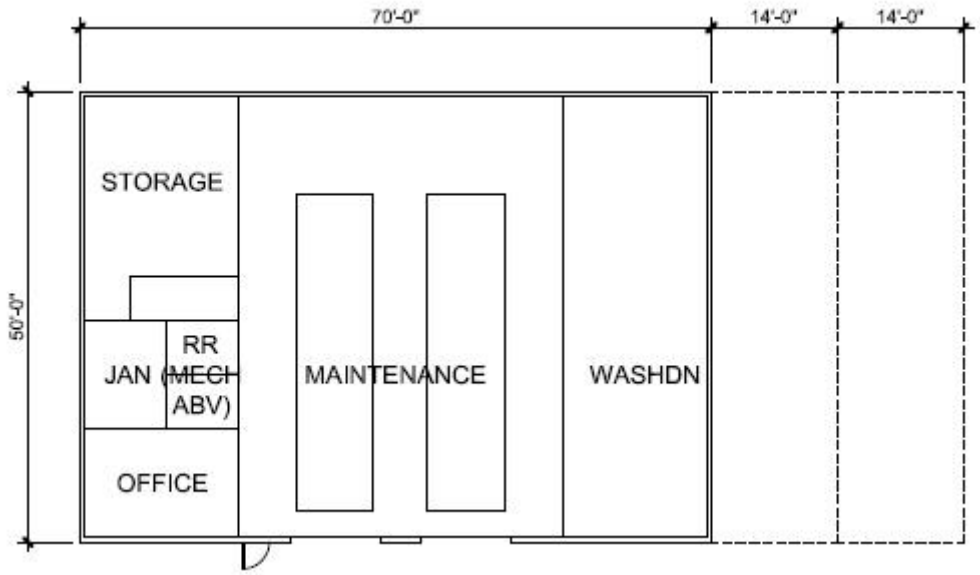


Figure 25 Typical Maintenance Building

Table 35
Typical Building Dimensions

Administration / Office Building

Room	Area (sf)
Lobby/Info Area (30-40 people)	600
Dispatch	200
Ticket Sales	200
Restrooms (2 stalls each, 150 sf per gender)	300
Breakroom	300
Conference Room (25-30 people)	800
Offices (5 offices, (3)100 sf, (2)150 sf)	600
Freight Handeling/Storage	200
General Storage	150
Mechanical Room	150
Janitorial Room	100
Circulation	550
Total	**4150**

Maintenance Building

Room	Area (sf)
Repair Bays (2)	1800
Office	200
Restrooms (2 Unisex)	100
General Storage	350
Mechanical Room	150
Janitorial Room	100
Circulation	100
Washdown Area (covered exterior)	800
Total	**3600**
Additional Repair Bays (each)	*800*

CANDIDATE SITES

A site tour of the Highway 30 corridor in St. Helens was conducted with Janet Wright and Henry Heimuller. Ten candidate sites were visited and four were subsequently selected for further evaluation. The four selected sites are described below.

Site 1 — Gamble Road

This is relatively level vacant property along Gamble Road and to the east of Highway 30. It would have direct access from Gamble Road. Buses leaving the site would travel west toward a signalized intersection with Highway 30.

Size and Configuration of the Property — The 4.0 acre property meets the minimum size anticipated for the transit facility design program. Configuration of the site may make it difficult to avoid internal circulation conflicts between buses and park-and-ride vehicles.

Highway 30 Access — A signalized intersection supports good bus operations. However, there are significant vehicle queues on Gamble Road when a train is moving north or south through the same intersection (parallel to Highway 30). The queues historically back-up past the candidate property and would prevent buses from arriving at or leaving the transit center until the train passed and the intersection cleared. These daily delays would adversely impact route schedules.

Passenger Vehicle Access — Access to the park-and-ride lot would be similarly impacted by train traffic and the occasional long queue of cars on Gamble Road.

Availability of Land for Acquisition — Availability of this land for purchase was uncertain at the time site selection was made.

Site 2 – Gamble Road

This is also relatively level vacant property along Gamble Road and is adjacent to Site 1. It would have the same direct access from Gamble Road, with buses leaving the site traveling west toward Highway 30.

Size and Configuration of the Property — The 8.0 acre property exceeds the minimum size needed. Configuration of the site would make it easier than at Site 1 to avoid internal circulation conflicts between buses and commuter vehicles using the park-and-ride lot.

Highway 30 Access — Access constraints and impacts to schedules are the same as for Site 1.

Passenger Vehicle Access — Access constraints are the same as for Site 1.

Availability of Land for Acquisition — Availability of this land for purchase was also uncertain at the time site selection was made.

Site 3 – Milton Way Site

This is relatively level vacant property accessed from Milton Way, which runs parallel to but some distance from Highway 30. The property is essentially a "flag lot" without direct frontage access onto Milton Way.

Size and Configuration of the Property — At 7.9 acres, the property exceeds the minimum size anticipated for the transit facility. However the northwest portion of the property is lower and could pose site grading and drainage challenges. Configuration of the site also may be difficult, if not impossible, to avoid internal circulation conflicts between buses and commuter vehicles using the park-and-ride lot. All vehicles would use the same entry point at Milton Way.

Highway 30 Access — Access to Highway 30 would be out-of-direction compared to Site 1 and Site 2. There would also be no visibility of the transit center from Highway 30.

Passenger Vehicle Access — Access to the park-and-ride lot would be similarly impacted by potential out-of-direction travel to and from Highway 30.

Availability of Land for Acquisition — Availability of this land for purchase was uncertain at the time site selection was made.

Site 4 — Stimson Lumber Yard Site

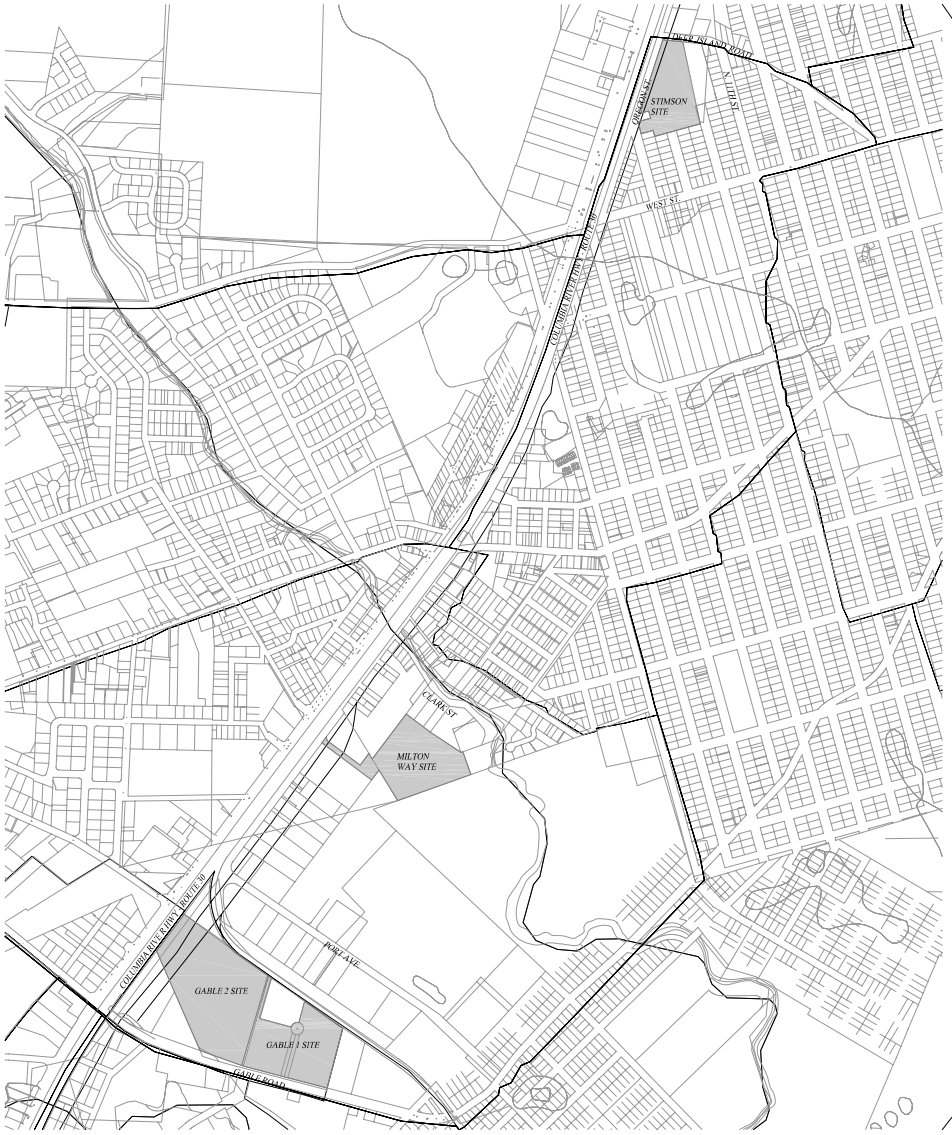
The property is a former lumber yard. A small, one-story office building remains on the site. There are a number of old foundations, equipment pads and wall bases that would need to be removed. The site has noticeable north-to-south slope but it is not significant enough to prevent development of functional parking areas and bus lanes. Unlike Sites 1-3, this property has two street frontages — Deer Island Road and Oregon Street.

Size and Configuration of the Property — The 7.5 acre property exceeds the size anticipated for the transit facility. Configuration of the site makes it relatively easy to avoid internal circulation conflicts between buses and commuter vehicles using the park-and-ride lot. With two street frontages, it should also be possible to provide widely separated entries for buses and cars, perhaps even from different streets

Highway 30 Access — Access to the highway would be at the signalized intersection of Deer Island Road and Highway 30. The intersection can be approached from either Oregon Street or Deer Island Road. While train traffic could delay the signal change, the low volume of local traffic is not likely to create the long queues experienced on Gamble Road (Site 1 and Site 2).

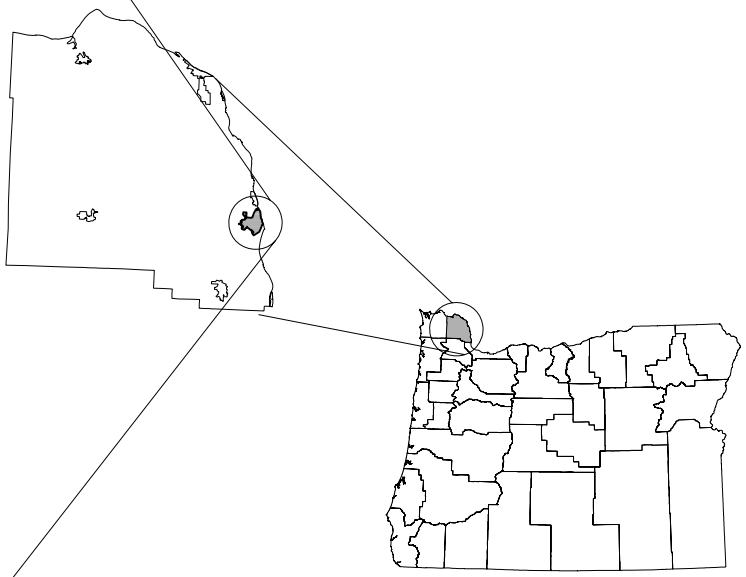
Passenger Vehicle Access — Access to the park-and-ride lot would be relatively easy with direct access from Oregon Street.

Availability of Land for Acquisition — There was an interested seller for this property, willing to begin negotiations with Columbia County. That was a significant factor in making this the preferred site.



LOCATER MAP

Gable Site 1 - 8.0 acres
Gable Site 2 - 4.0 acres
Milton Way Site - 7.9 acres
Stimson Site - 7.5 acres



1000' 0' 1000' 2000'

SCALE IN FEET

COLUMBIA COUNTY TRANSIT STUDY

TRANSIT CENTER CANDIDATE SITES

May 2009

TRANSIT CENTER CONCEPT PLAN ALTERNATIVES

Two alternatives were developed for the preferred site (the former Stimson Lumber Yard) as Concept A and Concept B. Both alternatives were based on the preliminary design program. Concept B reflects input from Oregon Department of Transportation and evolving negotiations with the property owner with regard purchasing only a portion of the site.

Concept A

This concept utilizes four acres of the property. The unused portions are at the northeast corner (including the existing building) and at southern end of the site. The unused portions could be purchased later to expand the transit facility. The configurations and street access for the unused portions of the site are not favorable to future development as other uses under separate ownership.

Buses and cars have separate entrances and do not share circulation lanes. Columbia Rider buses would enter from Deer Island Road. From that entry, the buses could load passengers in front of the administration building or proceed directly to the maintenance and over-night parking areas. Future Greyhound service would enter from Oregon Street and exit on to Deer Island Road. The "sawtooth" design of the bus bays will allow for independent arrival and departure.

Passenger vehicles enter and exit the park-and-ride lot from Oregon Street. There is an internal walkway providing a pedestrian connection from parking to the administration building and to the bus bays for loading.

This alternative features a new administration building in the northwest corner of the site. The building footprint is consistent with the building design program developed earlier in the project. The plaza area in front of the building would provide outdoor waiting areas and space for bike lockers or other passenger amenities.

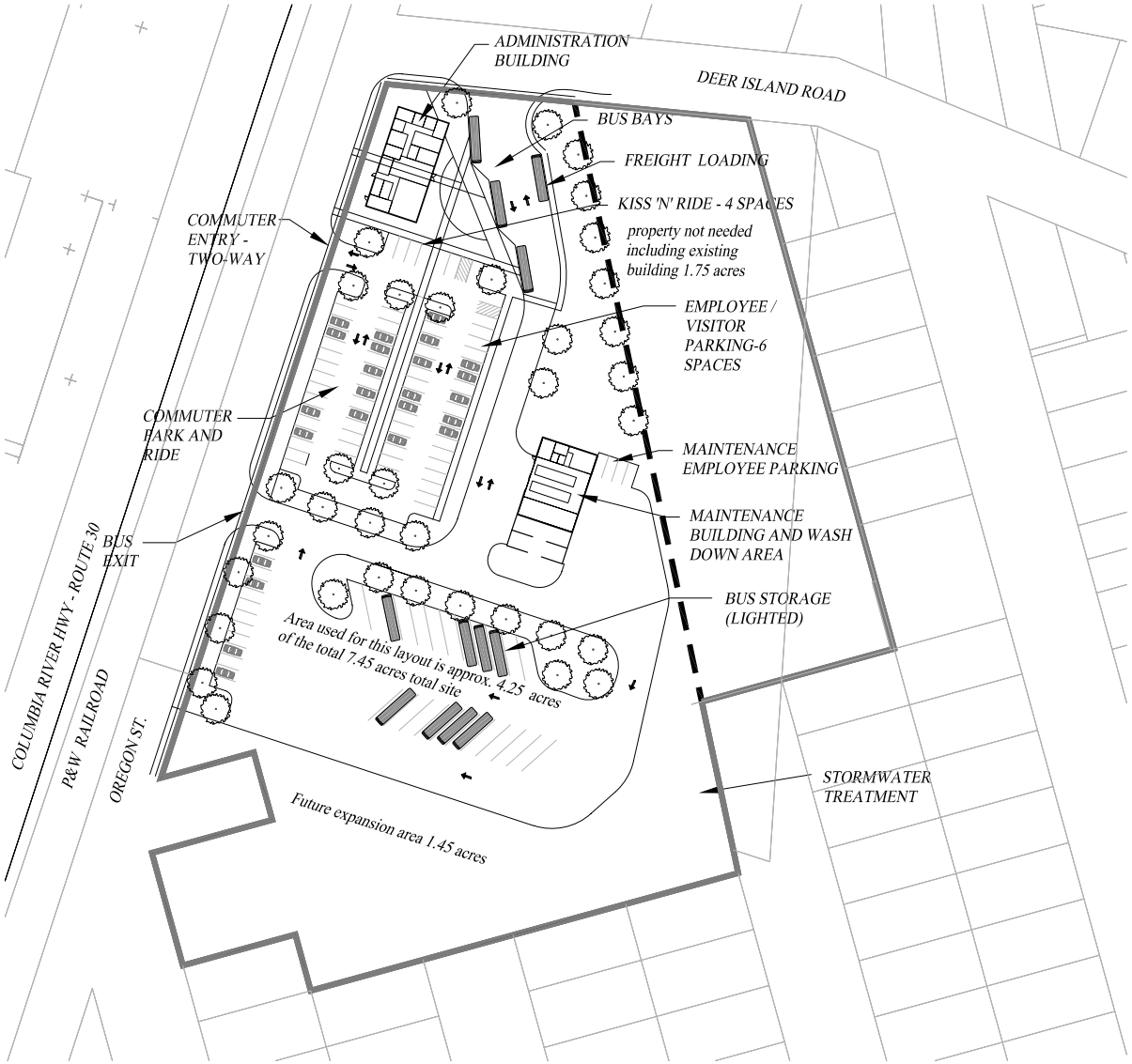
Concept B

This alternative is the preferred concept for transit center development. It uses approximately 5 acres of the property, including one acre reserved for as future development site for other uses. The future development site is at the visually prominent corner of the site, replacing the administration building in Concept A.

Buses and cars will maintain separate entrances to the transit facility. They will not share circulation into circulation lanes. Columbia Rider buses would enter from Oregon Street rather than from Deer Island Road (Alternative A) in order to minimize potential queuing problems due to train traffic delaying access to Highway 30. Future Greyhound service would also enter from Oregon Street and exit on to Deer Island Road. The maintenance facilities and out-of-service parking will remain at the southern end of the site and will also be accessed from Oregon Street. Park-and-ride vehicles will enter and exit the park-and-ride lot from Oregon Street.

Rather than construct a new administration building, this concept assumes that the existing building on the site can be remodeled to serve as the transit administration building. It will provide essentially the same offices, conference rooms and ticketing functions that would have been provided in a new building. The site plan also allows for the potential addition of 1,200 to 1,500 square feet to the existing building. The addition would provide office space for the Oregon State Police (OSP). The agreement with OSP to build and use office space has not been finalized.

Figure 27 Existing Administration Building



DEER ISLAND ROAD TRANSIT CENTER

DEVELOPMENT PROGRAM

- Passenger Loading Area: 3 coaches
- Park-n-Ride: 62 spaces
- Kiss-n-Ride: 4 spaces
- Out-of-Service Parking for 20 coaches
- Freight loading for 1 coach
- Administration Office: 4,150 s.f.
- Maintenance building: 3,600 s.f.

EXISTING CONDITIONS

EXISTING CONDITIONS

100' 0' 100' 200'

SCALE IN FEET

COLUMBIA COUNTY TRANSIT STUDY

TRANSIT CENTER CONCEPT A

May 2009

DEER ISLAND ROAD TRANSIT CENTER

DEVELOPMENT PROGRAM

- Passenger Loading Area: 3 coaches
- Park-n-Ride: 65 spaces
- Kiss-n-Ride: 4 spaces
- Employee and Driver Parking 32 spaces
- Out-of-Service Parking for 20 coaches
- Freight loading for 1 coach
- Administration Office (remodel existing building)
- Oregon State Police Office (OSP): 1,200 - 1,500 s.f.
- Futrure Development Site 30,000 sf

Existing Building to be Remodeled

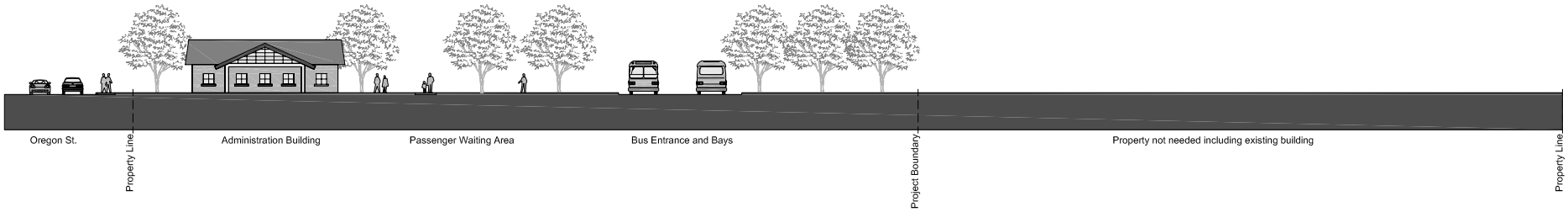
Existing Site Conditions

50' 0' 50' 100'
SCALE IN FEET
1"=50' (22x34)

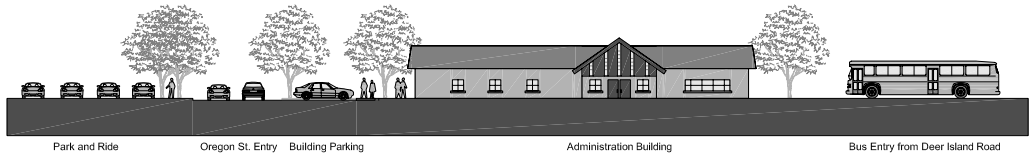
COLUMBIA COUNTY TRANSIT STUDY

TRANSIT CENTER CONCEPT B

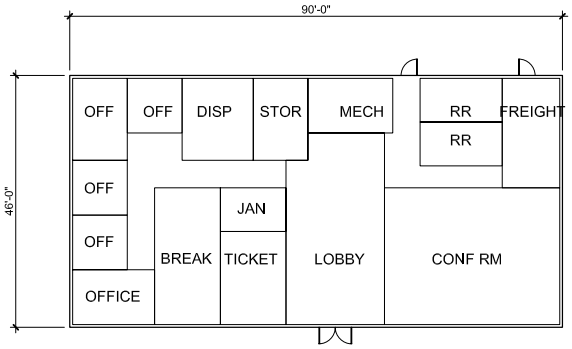
May 2009



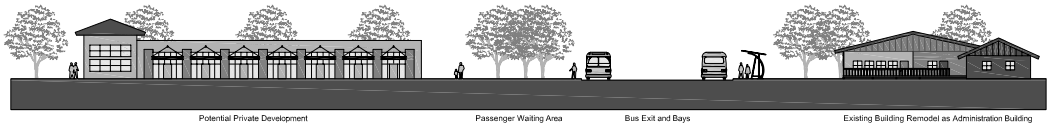
CONCEPT A -TRANSIT CENTER SECTION LOOKING NORTH



CONCEPT A -TRANSIT CENTER SECTION LOOKING WEST



CONCEPT A -ADMINISTRATION BUILDING



CONCEPT B -TRANSIT CENTER SECTION LOOKING NORTH

KEY ISSUES AND CONSTRAINTS

Since buses and passenger traffic will impact a public rail crossing, ODOT Rail has indicated alterations will be required of County. The City of St. Helens would need to be the applicant for an Alteration for a Rail Crossing Order processed through ODOT. The City and County would need to enter into an intergovernmental agreement as the County would provide funding for the improvements. The alterations include retiring the industrial spur line and relocating the signal and automatic gate at the Deer Island Road crossing. All work would be performed by Portland & Western Railroad at the expense of the County.

As the project moves through the planning approvals process with the City, a Phase I Environmental Assessment of the site will be required. The site exhibits debris piles from demolition of the mill, drums of potentially hazardous substances and visible surface staining of soil and pavement. Depending on the result of the Phase 1 Assessment, a limited Phase II Assessment may be required.

PLANNING LEVEL COST ESTIMATES

Planning level cost estimates were prepared for the preferred plan (Concept B). The cost estimates were prepared without the benefit of site survey, as-builts for the previous uses and on-site utilities or complete findings from the environmental assessment. The cost estimate includes mobilization costs, construction contingency and cost allowances for design, permitting and construction management.

The final planning approval requirements of the City of St. Helens may reduce some cost items such as frontage improvements for Oregon Street and Deer Island Road. Costs for landscaping and site furnishings may also be reduced during construction if the expectations for landscaping and site lighting are less than was assumed for purposes of this cost estimate. A cost summary for the Deer Island Road Transit Center is shown in Table 36.

Table 36
Deer Island Road Transit Center Budget Estimate

Budget Estimate – Deer Island Road Transit Center					
Estimate Prepared by – Otak			**Date of Estimate – May 28, 2009**		
Scope of Work — Columbia County Transit Study					
Street/Avenue — Per Otak Transit Center Concept B					
Item No.	Total Quantity	Description	Unit	Unit Price	Cost
1	1	Mobilization (5%)	LS	$70,000	$70,000
2	1	Erosion Control (1%)	LS	$15,000	$15,000
3	1	Traffic Control (3%)	LS	$35,000	$35,000
4	1	Site Preparation and Earthwork	LS	$100,000	$100,000
5	6,875	Bus Access and Parking (6" AC/12" Aggr.)	SY	$32	$220,000
6	4,400	Site Parking (4" AC/8" Aggr.)	SY	$28	$123,200
7	4,300	Concrete Curb (Onsite)	LF	$20	$86,000
8	1,400	Concrete Sidewalk (Onsite)	SY	$55	$77,000
9	1	Site Furnishings	LS	$50,000	$50,000
10	1	Water and Sewer (Onsite)	LS	$65,000	$65,000
11	1	Storm System (Onsite)	LS	$150,000	$150,000
12	16	Lighting	EA	$2,500	$40,000
13	1	Landscaping, Topsoil, and Irrigation	LS	$60,000	$60,000
14	1	Frontage Improvements (Offsite allowance)	LS	$160,000	$160,000
15	1	Rail Crossing Modifications	LS	$12,000	$12,000
16	1	Maintenance Building (allowance)	LS	$180,000	$180,000
17	1	Existing Building Renovation	LS	$120,000	$120,000
Subtotal					**$1,563,200**
Construction Contingency (20%)					$312,640
Construction Subtotal Estimate					**$1,875,840**
Design/Permitting (15%)					$281,376
Construction Management (10%)					$187,584
Total Project					**$2,344,800**

Notes:

1. This estimate represents budget level costs which are based on transit center Concept B plans.
2. Connection of proposed maintenance facility to power, gas, and communications is not included.
3. Cost for the pre-manufactured maintenance building will be determined later by Columbia County.
4. Treatment for water quality and detention will be required. The storm system includes pipe, inlets, manholes, swale, and detention costs.
5. Water and sewer includes cost for service/building connections and installation of onsite hydrants.
6. Frontage improvements assume 12' wide removal/replacement of pavement for grading, sidewalk, curbs, and storm drainage.
7. Frontage improvements actually required will be determined during the City of St. Helens approvals process.

Section 11
Public and Agency Outreach

Public and Agency Outreach

During the course of the planning process, the project team conducted a variety of activities to involve residents of Columbia County and affected agencies in the planning process, particularly those in communities directly affected by the transit plan and identified improvements. Activities included:

- Task Force meetings
- Public meetings
- Rider and residents surveys
- Meeting with appointed and elected officials
- Informational materials

Public outreach activities generally were incorporated in the planning process in the following way:

- PMT and Task Force members reviewed and commented on draft work products from the consulting team, including technical memoranda, survey questionnaires and results and plans for other public outreach activities.
- Task Force members also assisted in evaluating Highway 30 transit facility locations and needs through field visits and review of evaluation criteria and results.
- Transit riders (an important component of the general public) commented on existing transit services and future service improvement needs through a survey of riders.
- The general public commented on transit service goals, importance of transit and potential funding measures through a random sample survey; they also commented on proposed service improvements, fare structures and changes and facility improvements through two sets of public meetings, as well as written questionnaires distributed at meetings and via the County's Web site and local community facilities.
- Members of specific interest groups (e.g., social service agencies, employers and others) also commented on transit service needs through a series of stakeholder interview and meetings.
- Local appointed and elected officials reviewed and comments on the draft Community Wide Transit Plan and US 30 Transit Improvement Plan during two work sessions and via e-mail.
- The public was informed about the planning process throughout via the County's Web site, information distributed on buses, e-mails to interested parties and other means.

These activities are described in more detail below.

TRANSIT TASK FORCE MEETING PROCESS

The project team convened and met five times with a task force at key points during the process. The Task Force was made up of County staff, city managers and planning staff, members of the Columbia County Citizens Transit Advisory Committee, and representatives from connecting

transit districts, local social service agencies, and other interested groups. The level of participation in the Task Force process varied, with some members taking a very active role while others were less active.

The Task Force served as a community sounding board to review and provide input on each project deliverable (technical memoranda). Task Force members also assisted in notifying their constituents about meetings, touring existing and potential transit facility sites, and providing guidance on other public outreach activities. The members of the Task Force are listed in the Introduction to this document.

PUBLIC MEETINGS

The project team conducted two rounds of public meetings. The first round included three public meetings in early December, 2008 to review and solicit comments on completed work conducted on the Columbia County Community-wide Transit Plan and US 30 Transit Access Plan. The meetings were announced using a variety of methods including multiple media releases to local newspapers and radio stations which generated at least one local news story, direct notice via e-mail to approximately 120 people on the County Transit agency's interested parties list, announcement on the County's Web site, and via brochures distributed on the County transit vehicles. Meetings were held in the following locations:

- Columbia County Courthouse, St. Helens, December 4
- Vernonia City Hall, Vernonia, December 8
- Clatskanie River Inn, Clatskanie, December 9

Each meeting was conducted as an open house and included a PowerPoint presentation and large number of display boards. Given the limited attendance at the meetings the opportunity to talk to participants individually the PowerPoint presentation was used at only one of the meetings. *A summary of these meetings is provided in Appendix "L."*

A second round of meetings was conducted in March, 2009 to review and solicit comments on proposed service and facility improvements and fare structure recommendations identified as part of the Columbia County Community-wide Transit Plan and US 30 Transit Access Plan projects. As with the first round, the meetings were announced using a variety of methods including a media release to local newspapers, direct notice via e-mail to people on the County Transit agency's interested parties list, announcement on the County's Web site, information distributed on the County transit vehicles, and materials in city halls and other community gathering places.

Meetings were held in the same three communities, in which the first round of public meetings was conducted, including the following:

- Hump's Restaurant, Clatskanie, March 5, 2009, co-sponsored by the Clatskanie Chamber of Commerce
- Vernonia Senior Center Hall, Vernonia, March 18, 2009, co-sponsored by Vernonia Senior Center

- St. Helens Senior Center, St. Helens, March 30, 2009, co-sponsored by St. Helens Senior Center and Five-area Seniors lunch.

Co-sponsoring these meetings with other organizations allowed the County and consultant staff to share in meetings and events that were already scheduled and increase the number of people that could be reached. Attendance was much higher at this round of meetings than at the first round of public meetings. At each meeting, consultants presented a brief overview of the project and recommendations related to proposed service improvements and changes to transit fares. Handouts of the presentation were available. Meeting participants also reviewed two display boards at each meeting, which presented proposed transit service changes and fare structures. Questionnaires were also distributed to gather feedback on the proposed service changes and fares. In addition to the three meetings listed above, County staff met with transit vehicle operators and other citizens during a fourth drop-in public meeting at the County Courthouse. *A summary of these meetings is provided in Appendix "L."*

RIDER AND RESIDENTS SURVEYS

Two surveys were designed and conducted to capture the attitudes and opinions of Columbia County residents. The Rider Survey was an on-board survey of existing transit riders to understand how the service is currently used, and opinions on the quality of service and future service needs. The Rider Survey was designed to gather data from existing riders about who uses the service, characteristics of their trip, and opinions of both service quality and the need for new services. The surveys were distributed on all fixed-route, Flex-Route, and Dial-a-Ride services. Because of the intrinsic differences between fixed-route and Dial-a-Ride services, the results are summarized for each of the service types. The Flex-Route service is considered with the Dial-a-Ride service because the responses and ridership more closely resemble the Dial-a-Ride profile. A total of 239 surveys were returned: 123 from St. Helens to Downtown Portland, 21 from St. Helens to PCC and Willow Creek, 7 from Westport/Clatskanie to Rainer and Longview/Kelso, 45 from St. Helens Dial-a-Ride, 16 from Rainer Dial-a-Ride, 8 from Clatskanie Dial-a-Ride, and 19 from Flex-Route. *The full report is provided in Appendix "G."*

The Resident Survey was a random telephone survey of county residents that gathered overall opinions towards Columbia County Rider, transit needs, and dedicated transit funding issues. Just over 400 registered voters participated in the survey. The primary purpose of this study was to determine the level of support the voting public would have toward the creation of a Special Transit District within Columbia County. This would be accomplished by putting a future measure to the voters to ask for funding through property taxes to help continue and/or expand public transportation within Columbia County. The timing of this survey was set to occur after the mailing of the 2008 property tax bills. Data were collected via a telephone survey between October 21st and November 3rd, prior to the Fall General Elections. This was considered to be prime timing to ask voters for their opinions regarding money measures. Due to the pre-election economy, other money measures on the November ballot, and tax statements in the voters' hands, this provided the best respondent sensitivity and awareness to public issues. *The full report is provided in Appendix "F."*

STAKEHOLDER INTERVIEWS

The Stakeholder Interviews were designed to get information directly from stakeholders regarding current transportation needs and support for a potential transit district and tax measure. Fourteen stakeholder groups participated, including employers, social service agencies, schools, and other groups who have an interest in the provision of transit service. In addition, the project team conducted a stakeholder group meeting with the County's Community Action Team which includes representatives of a variety of social service providers, including programs related to low income housing, community investment, child and family care and services and emergency and transitional housing programs. *A summary of these interviews is provided in Appendix "H."*

WORKSHOPS WITH APPOINTED AND ELECTED OFFICIALS

The project team conducted two workshops with county and city officials to review the overall results and recommendations of the planning process. Team members met with the County Board of Commissioners in a work session to review the draft Community Wide Transit Plan and Highway 30 Improvement Plan recommendations. They also met with a group of representatives of city and county Planning Commissions and City Councils. Both meetings provided an opportunity to ask questions about Plan recommendations, including those related to implementation such as proposed Comprehensive Plan, Transportation System Plan and Zoning Ordinance amendments for the county and cities. Approximately 25 people attended the second meeting. *A summary of these meetings is provided in Appendix "L."*

INFORMATIONAL MATERIALS

During the course of the activities described above, the project team prepared a variety of presentation and informational materials, including newsletters summarizing project activities, display boards, PowerPoint presentations, questionnaires and other documents. All materials were made available on the CC Rider Web site and newsletters and questionnaires were distributed on all transit vehicles. In addition to the project team materials, local newspapers also provided articles on the development of the plans. *Articles printed in the Vernonia Paper and in the St. Helens Chronicle are provided in Appendix "L."*