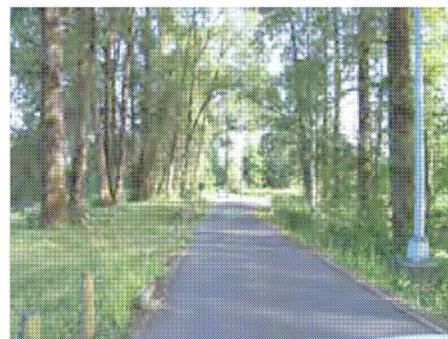


Chapter 5

Transportation

This element will examine transportation issues as they exist in the city today, and also those that will be generated by growth over the next 20 years. The purpose is to provide a transportation network that is consistent with the land-use context, safe and efficient for all types of users, meets basic regional needs, and bears minimal impact on the natural environment.



Facilities in the network should include:

- Transit (Both local and regional services)
- Bicycle accommodations
- Pedestrian accommodations
- Greenways
- Trails
- Roads and streets

The Transportation Element includes the new traffic growth projections, regional linkages, planned transportation improvements, recommended action steps, and policies. The City of Chehalis is required to develop a comprehensive transportation plan that addresses the City's long-term growth, including its effects on the transportation system, and a program of improvements for various modes of transportation. This must be part of the Comprehensive Plan, consistent with the Land Use Element and other aspects of the Plan, and consistent with the countywide planning policies. Other requirements of the GMA, such as coordinating with other agencies, developing "level of service" standards, and analyzing transportation funding and concurrency issues, are also addressed here.

The transportation concurrency requirement of the GMA mandates that development cannot be permitted unless adequate transportation infrastructure already exists or will be developed concurrent with the development. It allows a maximum six-year window between a development application and completion of any needed transportation infrastructure or strategies. Needed strategies, in addition to capital facilities, may include transit service, transportation demand management, or transportation system management. The appropriate infrastructure or approved strategies must be in place at the time the development is ready for occupancy or within a limited timeframe after occupancy.

To be eligible for most funding programs, the City's transportation plan must be consistent with both regional and state transportation plans and must comply with the GMA. The most recent regional transportation plan is being developed through the Southwest Washington Regional Transportation Planning Organization (SWRTPO). The SWRTPO is comprised of Cowlitz, Grays Harbor, Lewis, Pacific and Wahkiakum Counties. Regional Transportation Planning Organizations were enabled by

the legislature in 1992 to allow for counties to voluntarily group together and provide regional transportation planning services. RTPPO activities are supported by state funds.

CWCOG transportation planning staff works with the local agencies in the five-county area to carry out regional transportation planning activities that cover a wide array of transportation-related issues. CWCOG collaborates with the five counties to prioritize transportation needs and assist in securing funding to complete projects that keep the regional transportation network up to date.

Current activities include:

- Developing a Coordinated Human Services Transit Plan.
- Making amendments to the Regional Transportation Improvement Program.
- Completing studies regarding improvements to the I-5 corridor in Lewis County.
- Working with WSDOT rail personnel and Burlington Northern Santa Fe to improve rail travel and storage along the north-south mainline.
- Updating the Regional Transportation Plan.



Upcoming studies include...

- Developing a transportation strategic plan for the Woodland area.
- Completing an arterial analysis of the Centralia/Chehalis urban area.
- Completing reconnaissance of US 101 corridor through Aberdeen-Hoquiam urban area.

The Transportation element is dependent upon the land use element for its assumptions regarding future land use patterns. The pattern of future development can help to shape transportation options. Similarly, the availability of safe, convenient transportation facilities can be a factor in determining development trends. Land Use, Housing and other elements of this plan are closely linked to transportation. For example, housing densities help to determine whether a transit system would be cost-effective to operate.

The city's Transportation Improvement Program (TIP) will be included as a component of the Capital Facilities plan.

The close relationship between land use and the supporting transportation infrastructure is central to the success of planning under the Growth Management Act (GMA). The GMA specifically requires the following topics to be addressed as part of the Transportation element:

- Land use assumptions used in estimating travel demand;
- An inventory of existing transportation facilities and services;
- Level of Service (LOS) standards to gauge the performance of the system;

- Identification of actions and requirements needed to bring existing facilities and services up to standard; Forecasts of future traffic based on the land use plan;
- Identification of improvements and programs needed to address current and future transportation system deficiencies, including Transportation Demand Management (TDM) strategies;
- A realistic, multi-year financing plan that is balanced with the adopted LOS standards and the land use element; and
- An explanation of intergovernmental coordination and regional consistency.

The existing circulation system in Chehalis developed in response to the opportunities and constraints presented by natural features of the land. Later, the introduction of rail lines greatly influenced where development would occur. Today, there appears to be a more symbiotic relationship between transportation and land use. Certainly, the location of the road network influences development decisions, but the relative scarceness of developable land also determines where transportation facilities will be located.

TRANSPORTATION PLANNING PROCESS

The core area for evaluating transportation needs focuses on the city and its Urban Growth Area (UGA). This core area was necessarily considered within a regional context through the linkages to nearby cities and major transportation facilities.

The process used in analyzing the transportation system followed a traditional sequence of steps that recognizes the integral relationship between land use and transportation.

- 1 The analysis relied on land use and employment forecasts prepared as part of the Land Use element;
- 2 The land use forecasts were then translated to traffic volumes;
- 3 Traffic volumes were assigned to the road network;
- 4 The volumes were examined in relation to the road capacities and LOS to define transportation system deficiencies and improvement needs;
- 5 Growth associated with through traffic and traffic within the UGA was estimated for arterial streets that provide convenient routes through or around the edges of the city and the UGA;
- 6 Locally generated traffic and through traffic were combined to reflect the long-range forecast for traffic volumes; and
- 7 To ensure consistency, the results of the analysis were measured against statewide GMA goals and Lewis County's County-wide Planning Policies.

LOCAL POLICY/REGIONAL COORDINATION

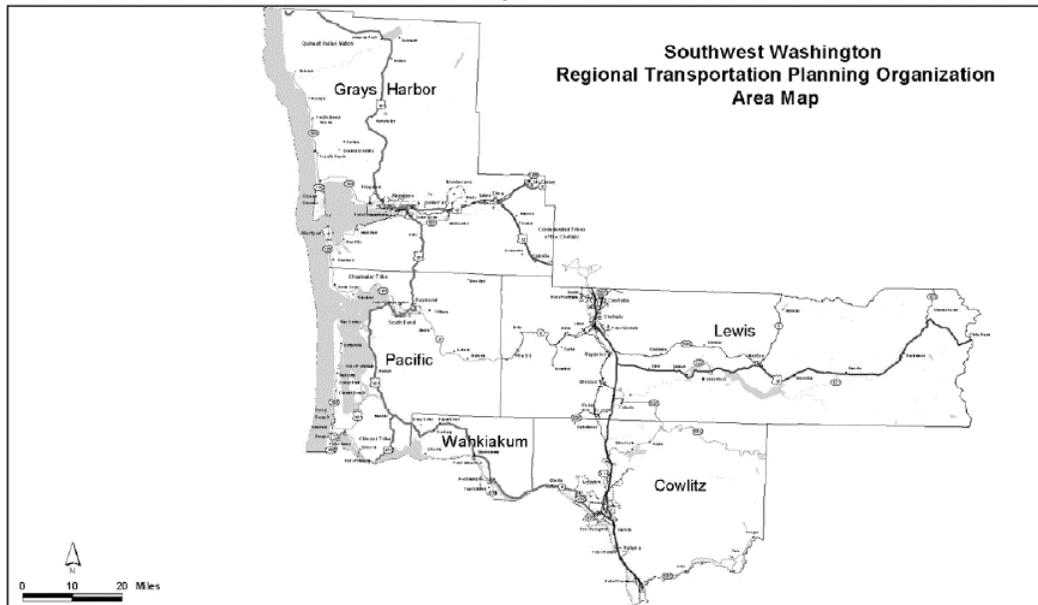
The comprehensive plan recognizes the importance of coordination and strong inter-jurisdictional action because transportation impacts do not stop at local boundaries. Inter-jurisdictional coordination is necessary for the region to maintain land use and transportation goals within the City of Chehalis. In planning for transportation, it is important to link land use with transportation facilities.

In 1990 The State of Washington developed a regional transportation planning program. The program led to the formation of the Southwest Washington Regional Transportation Planning Organization (SWRTPO),

made up of counties, cities, ports, transit agencies and other organizations within Cowlitz, Wahkiakum, Lewis, Grays Harbor and Pacific counties. See *Figure 1*.

A board of directors addresses planning issues across county lines and is responsible for the adoption of the Regional Transportation Plan. The plan addresses levels of service on regional facilities. Levels of service in turn determine deficiencies and needed improvements in the regional system which must be funded through a financial plan. As the City of Chehalis grows and new infrastructure is needed to support additional development, levels of service provide a means to test whether existing regional roads are adequate or whether facility improvements or other strategies are needed to preserve traveler mobility. The Regional Transportation Plan will be critical to the future of transportation planning within Castle Rock because regional projects within the Chehalis area will be prioritized against projects elsewhere in the region by the Southwest Washington Regional Transportation Planning Organization

Figure T-1



Source: *Human Services Transportation Coordination Plan, SWRPTO 2007*

EXISTING CONDITIONS

Transportation System Inventory

Streets. The Chehalis road network follows a series of grid patterns that change orientation as they follow topography. The network spine, Market Boulevard, is oriented generally in a northwest/southeast direction that follows the toe of the hillside that slopes down to the Chehalis and Newaukum River valleys. The main arterial links through the city are described as follows:

Washington and Pacific Avenues, within the Central Business District (CBD), form a one-way

couplet for about four blocks before coming together at Market Boulevard to the south and National Avenue to the north.

Market Boulevard (State Route 99) provides two or three travel lanes with parking along the majority of its length. This street serves many city businesses in addition to providing a continuous north-south linkage. The function of this street has changed from the main north-south highway to a principal arterial serving intra-city transportation needs. This functional change was the result of the construction of I-5. The arterial has shifted from a through traffic carrier to one that provides an increasing amount of local access and a collector/distributor function for streets leading to the I-5 interchanges.

National Avenue and Kresky Road continue from Market Boulevard north towards Centralia. National Avenue splits north of Coal Creek Road as a one-way couplet. These streets serve a large number of major businesses at the north end of the city in addition to providing the primary arterial linkage north to Centralia.

Chamber of Commerce Way connects National Avenue from the north and south to I-5. This two-lane road not only serves as a major link between I-5 and the city street system, but it also connects the city to the west side of I-5 where a large concentration of retail and commercial land uses and the airport are located.

Main Street (State Route 6) provides a second link to I-5 and is used for inter-city movements from areas of southwestern Washington to the Willapa Bay and the Pacific Ocean coastal region. It also provides access between central and west Chehalis, including a secondary access with West Street to the airport.

Parkland Drive/SW 13th Street provides the southernmost connection between I-5 and Chehalis and the area directly south, including the area's Port of Chehalis industrial center. This street also provides access to Stan Hedwall Park and the businesses near the I-5 interchange.

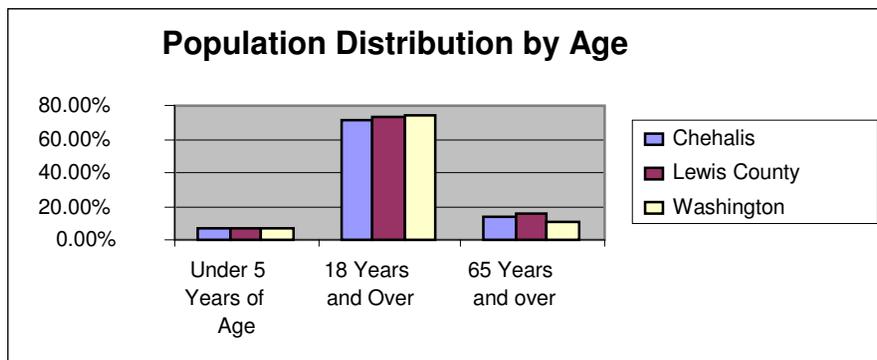
Interstate 5 traverses the west side of the city street grid and provides the city with its primary interstate and inter-city connections in western Washington and Oregon. This highway connects with the city's street network via three interchanges: interchange #76 -Rice Road/Parkland Drive/13th Street; interchange #77 – Main Street; and interchange #79 – National Avenue/ Chamber of Commerce Way. All interchanges are diamond interchanges with all movements permitted.

Transit

Provision of transportation facilities should be equitable. The people in Chehalis are diverse and have varying transportation needs. Some people require facilities for high occupancy vehicles and transit, while others require facilities for single occupancy vehicles. Accessibility for disabled individuals, youth, and seniors must be considered in provision of transportation services.

Lewis County has a population of slightly less than 73,000. See Figure T-2. Approximately 2/3rds of the county residents live in unincorporated areas. Of the total population, 16 percent are 65 or older and over 15,000 people have a disability.

Figure T-2



Source: U.S. Census Bureau, 2000 Census

Existing Services

Catholic Community Services uses volunteers using their own cars to provide rides in northern Lewis County and southern Thurston County for senior citizens. Currently, they have about 5 volunteer drivers in Lewis County. Most of the trips are to medical appointments or for errands. They mostly provide trips within the county because their volunteers do not like to make long trips. There is a great need for rides in the western part of the county, in Pe Ell and nearby communities because no public transit serves this area. CCS would like to provide more rides if they could find and train more drivers

• **L.E.W.I.S. Mountain Highway Transit (LMHT)** is a private transportation program operated by the White Pass Community Services Coalition (WPCSC). LMHT provides three transportation services:

- Rural, fixed route, intercity bus service from Packwood to Centralia/Chehalis via Hwy 12 communities of Randle, Glenoma, Morton, Mossyrock, Silver Creek, Salkum, Ethel, and Hwy 508 community of Onalaska
- Fixed-route, intercity bus service from Morton through east Lewis County community of Mineral, and southeast Pierce County communities Elbe, Eatonville, with terminus at Pierce Transit's Elk Plain Wal-Mart stop
Both fixed route services operate weekdays from 3:40 AM to 8:40 PM
- Rural dial-a-ride service for the elderly and disabled between the eastern Lewis County communities of Mineral, Morton, Glenoma, Randle, and Packwood. The dial-a-ride service operates only on Tuesdays and Thursdays.

LMHT operates seven vehicles including two 24-passenger buses; two new 14-passenger buses; and three older small buses. All vehicles are accessible with wheelchair lifts. While LMHT transports people for a wide variety of purposes, there are a large number of riders going to Centralia Community College, many of whom are unemployed timber workers who are in vocational training programs.

Lewis County Senior Transportation Program provides Dial-a-Ride service anywhere in the county for seniors and operates a scheduled medical and shopping shuttle to downtown Chehalis for residents in Pe Ell one day a week. General hours of service are from 8 am to 5 pm, Monday through Friday. Special Saturday service can be arranged for certain life-sustaining trip purposes, such as dialysis treatment. This service uses only paid drivers and provides about 13,000 trips a year, including roughly 6,000 Medicaid-funded trips. This program is interested in expanding its services in the southern part of the county, which is currently unserved.

Twin Transit is a public transportation system operated by the Lewis County PBTA and has a service area with an estimated passenger population of 22,755. Twin Transit provides five deviated routes and paratransit services to passengers within the Cities of Centralia and Chehalis, Washington. While the transit agency recently won a sales



tax increase, it continues to confine its services to the urbanized area for financial reasons.

Twin Transit operates five deviated routes as follows:

- Two rural routes seven days a week (Centralia North/Outlets and Centralia South/High School);
- One rural route Monday through Friday (Residential Chehalis and Port of Chehalis);
- Two intercity routes between Centralia and Chehalis, seven days a week (north to Hospital, south to Wal-Mart);
- Twin Transit provides complimentary paratransit service for persons with disabilities seven days a week.

Twin Transit has twelve (12) route deviated service vehicles equipped with wheelchair lifts and two (2) Paratransit Service vehicles that are ADA accessible.



Twin Transit's administration, maintenance, and bus storage facilities are located in Centralia. The Centralia train depot in downtown Centralia and Yard Birds Mall serve as transfer points between routes. The City of Chehalis provides a downtown transfer facility with restrooms and a waiting area. Twin Transit has 46 bus shelters along its routes.

Twin Transit's deviated routes serve all local public and private schools, including Centralia College. It also serves the Centralia Amtrak depot and Greyhound Lines' bus depot and Twin Transit serves the only park and ride lot in the community located in Centralia along I-5.

Twin Transit's Long-Range Plans (2009-2013) are:

- Replace cutaway buses and coaches as part of Twin Transit rolling stock replacement schedule;
- Plan for transit service expansion to northern, western, and southern Lewis County underserved regions.

Figure T-3

	2005	2006	2007	% Change	2008	2009	2010	2013
Annual Revenues								
Sales Tax	\$1,033,258	\$1,429,094	\$1,553,508	8.71%	\$1,565,000	\$1,613,000	\$1,661,000	\$1,815,000
Farebox Revenues	\$68,898	\$62,537	\$73,201	17.05%	\$77,000	\$79,000	\$82,000	\$89,000
Federal Section 5311 Operating	\$98,213	\$35,447	\$102,915	190.33%	\$72,000	\$175,000	\$88,000	\$175,000
State Special Needs Grants	\$75,515	\$156,464	\$164,949	5.42%	\$88,000	\$0	\$49,000	\$110,000
Other	\$38,499	\$105,613	\$97,965	-7.24%	\$95,000	\$100,000	\$103,000	\$111,000
Total	\$1,314,383	\$1,789,155	\$1,992,538	11.37%	\$1,897,000	\$1,967,000	\$1,983,000	\$2,300,000
Annual Operating Expenses								
Annual Operating Expenses	\$1,313,639	\$1,543,003	\$1,436,070	-6.93%	\$1,778,000	\$1,840,000	\$1,928,000	\$2,109,000
Total	\$1,313,639	\$1,543,003	\$1,436,070	-6.93%	\$1,778,000	\$1,840,000	\$1,928,000	\$2,109,000
Annual Capital Purchase Obligations								
Federal Section 5309 Capital Grants	\$116,908	\$388,711	\$135,600	N.A.	\$0	\$440,000	\$75,000	\$165,000
Federal Section 5311 Capital Grants	\$0	\$0	\$0	N.A.	\$0	\$0	\$543,000	\$0
Local Funds	\$20,762	\$141,383	\$33,900	N.A.	\$100,000	\$101,000	\$155,000	\$41,000
Total	\$137,670	\$530,094	\$169,500	-68.02%	\$100,000	\$541,000	\$773,000	\$206,000
Ending Balances, December 31								
General Fund	\$0	\$13,777	\$3,652	-73.49%	\$285,000	\$582,000	\$843,000	\$2,107,000
Working Capital	\$718,472	\$1,147,405	\$1,694,580	47.69%	\$1,780,000	\$1,869,000	\$1,962,000	\$1,720,000
Capital Reserve Funds	\$569,642	\$392,051	\$364,593	-7.00%	\$383,000	\$298,000	\$158,000	\$527,000
Total	\$1,288,114	\$1,553,233	\$2,062,805	32.81%	\$2,448,000	\$2,749,000	\$2,963,000	\$4,354,000

Source: Summary of Public Transportation 2007, WSDOT

- **CAP-Lower Columbia Community Action Council-provides general public I-5 fixed route service that connects Lewis County residents with Thurston County and Intercity Transit to the north, and with Clark County and C-Tran to the south. The intercity service operates Monday through Friday. The run to the north**

makes four round trips, and serves the communities of Centralia and Tumwater. The southern run makes three round trips weekdays to the communities of Toledo/Winlock – Castle Rock - Longview - Kalama - Woodland and Salmon Creek. CAP uses 12 –passenger lift-equipped vehicles and charges \$1 each way.

- **Medicaid Transportation:** Paratransit Services is the regional Medicaid transportation brokerage that serves Lewis County. It contracts with 16 regional transportation providers, including several taxi and cabulance companies and other private providers. The broker does not currently contract with Twin Transit or any of the public transportation systems in this region. However, it does purchase transit bus tickets and passes on behalf of its Medicaid clients.

During the three-month period ending July 31, 2006, about 5,000 medical trips originated in Lewis County. About one-quarter of all Medicaid trips originating in the County (over 1,200 trips) were out-of-county trips -- mainly to Olympia, but also some to Seattle, Tacoma and Longview. Over 50% of the medical trips originating in the eastern portion of the county come into the Chehalis/Centralia area.

Analysis of Demographic Data

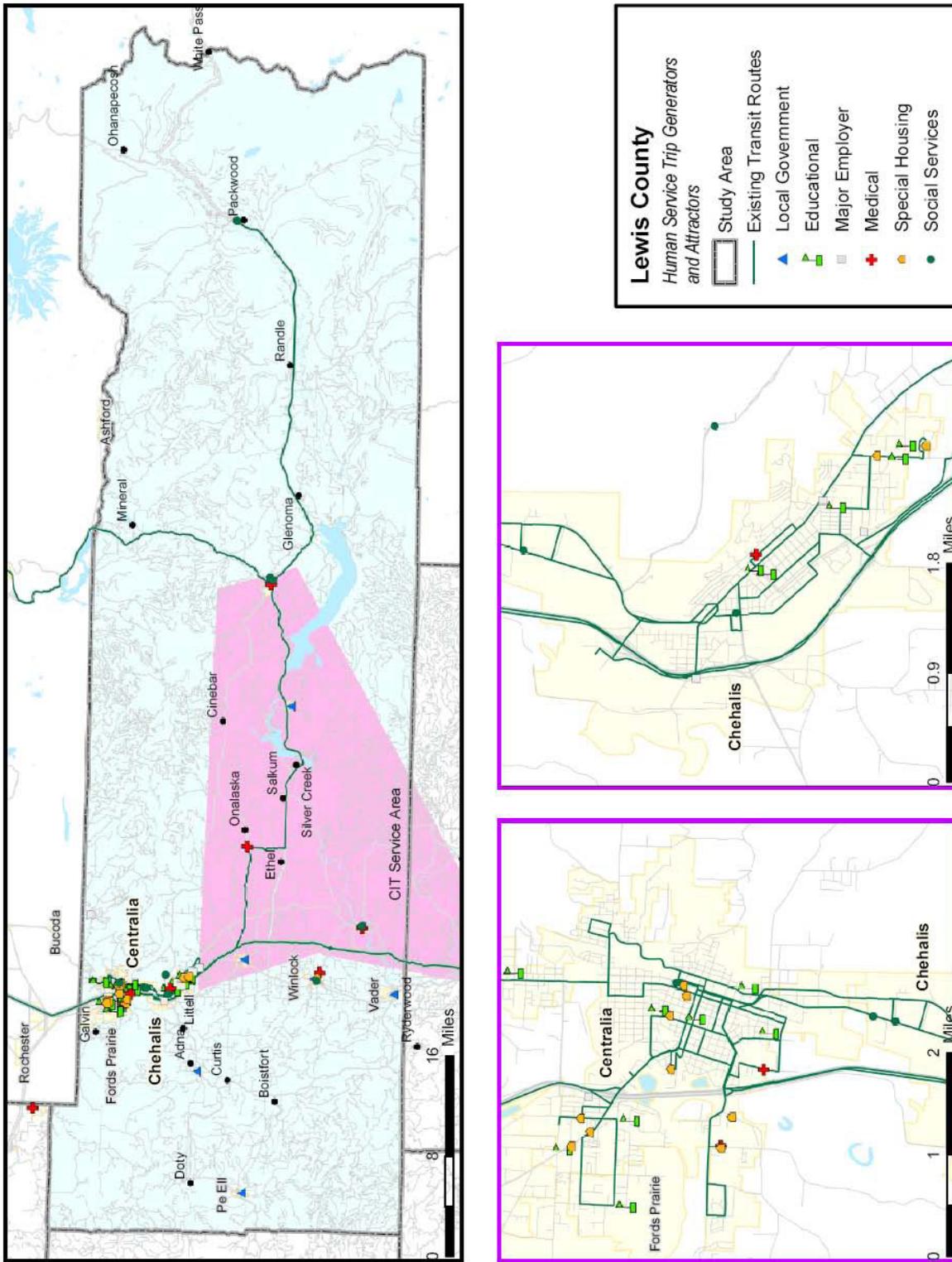
Figure XX: Lewis County Trip Attractors shows that most of the trip attractors are in the Centralia/Chehalis area, although there are some in Winlock and Morton. This map clearly shows that the western part of the county, in the Pe Ell area, has no transit services and very few services. This increases the need for transit services so that people can have access to important life activities. The southern part of the county, including the communities of Winlock, Vader, Napavine and Toledo, has limited service as well.

Figure XXX: Lewis County Transit Dependent Population indicates that transit dependent populations live throughout the county although they are focused in Centralia and Chehalis. However the Winlock and Vader area also have concentrations of transit dependent populations.

Unmet Needs and Issues

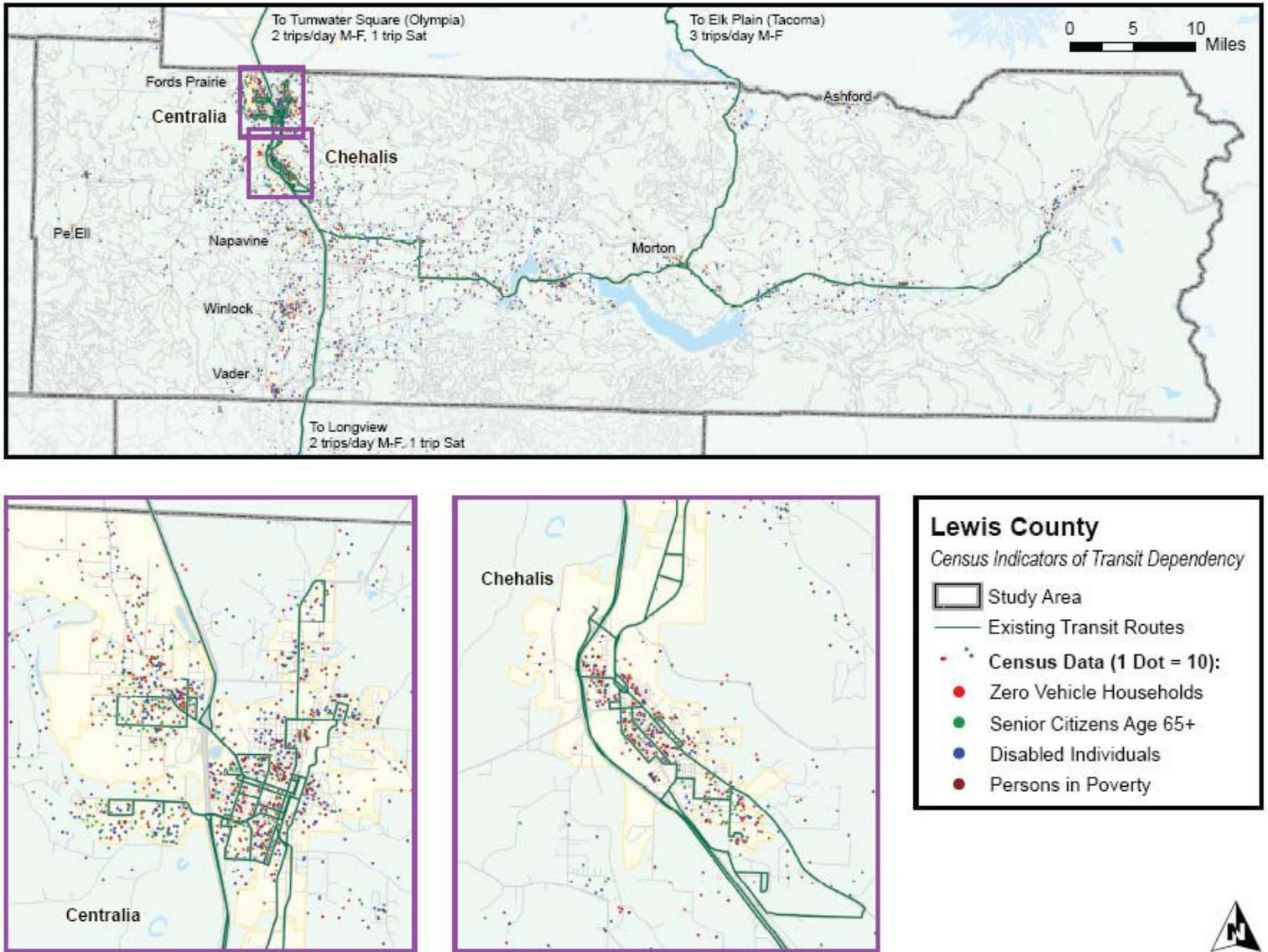
1. United Way of Lewis County completed a county wide needs assessment that ranked the lack of transportation as one of the main problems in the county
2. No public transportation to or in western Lewis County. There is very limited dial-a-ride service to southern Lewis County and portions of Hwy. 12 west of Mossyrock to I-5 and west of Cinebar on Hwy. 508. No dial-a-ride service west of Chehalis on Hwy. 6 to Pe Ell.
3. Access to medical care for the non-Medicaid population, especially for those under-60 years of age
4. No public transportation options between eastern Lewis County and Yakima along the Hwy. 12 corridor
5. Morton Hospital has difficulty getting transportation for their patients, especially for discharges
6. No central source of information about available transit services & funding resources
7. Lack of countywide transportation coordinating body
8. There is a need for out of county connections, especially medical trips to Olympia
9. There is no transit service in or to Toledo

Figure T-4 Lewis County Trip Attractors



Source: Human Services Transportation Coordination Plan, SWRPTO 2007

Figure T-5: Lewis County Transit Dependent Population



Source: Human Services Transportation Coordination Plan, SWRPTO 2007

Rail. Passenger rail service is provided via AMTRAK, with a depot in downtown Centralia 3.84 miles south of Chehalis. This service operates on track owned by the Burlington Northern-Santa Fe Railroad (BNSF).

There are four at-grade main-line crossings in Chehalis located at Main, Center, Prindle, and West Streets. There is one grade-separated crossing at Chamber of Commerce Way.

Freight rail service runs through Chehalis on BNSF and Union Pacific track. Within the IUGA, an additional at-grade crossing occurs on Bishop Road. The Parkland Drive and Bishop Road crossings will require active gates to increase traffic safety. These rail lines serve several commercial and industrial businesses on the west side of the Central Business District. A spur line extends into the Port of Chehalis

Industrial Park.

The Port of Chehalis owns the CM&E rail line which connects to the Burlington Northern mainline via the city of Tacoma rail line near Main Street in Chehalis and extends approximately 10 miles west to the Curtis Industrial Site. It is the Port's goal to realize industrial freight traffic on the CM&E rail line. The CM&E is also used by the Chehalis-Centralia Railroad Association for their steam train operation.

Air. Major airports serving Chehalis for commercial flights are SeaTac located 77 miles north of Chehalis and Portland located 84 miles south of Chehalis. The Chehalis-Centralia Airport is a general aviation airport serving Lewis County. Ground access to the airport is provided via West Street and NW Airport Road from Chehalis and via Louisiana Avenue from I-5.

The Chehalis-Centralia airport was a 600-acre farm, owned by the Donahoe family, before a portion of it was developed and sold to Lewis County in 1927. The dedication of an airstrip and the Riverside golf course occurred on May 21, 1927. Before the dedication, Paul Donahoe constructed an Aircraft maintenance facility that consisted of an office and a hangar and cleared the area to make way for a turf runway.



In 1928 the airport acquires 50 additional acres to its original 44 for the future development of the property. One year later the Federal Government recognized Chehalis-Centralia Airport as one of “The Best in the West.”



Just before World War II, Lewis County joined with the city of Chehalis in joint ownership of the land which then became known as the City-County Airport. At this time the airport managed 95 acres of land and would later purchase more than 200 surrounding the airport.

At this time the airport managed 95 acres of land and would later purchase more than 200 surrounding the airport.

During WWII, the government temporarily took control of the airfield and used it for a training facility along with an area for diversion in case of an emergency. Within this time period, the government spent \$798,799 for the development of two 5,000-foot runways, dikes and a drainage system. After the war, the county-city board resumed control and the first commercial service began with a scheduled carrier called West Coast Airlines. West Coast Airlines provided service until its



cancellation in 1958. Shortly after, the airport was annexed to the city of Chehalis.

The instrumental Airport Board, that is still used today, was organized in 1961 and Centralia becomes a partner. 31 years later an updated plan closes runways 1-19 due to extreme buckling to its surface. In 1983 Medium Intensity Runway Lighting System (MIRL) was installed on Runway 15-33. Not until 1993 does the Airport agree to a 15.7-acre ground lease with Wal-Mart. CCA Retail and Home Depot follow producing much of the airports revenue.

The airport has recovered successfully from a 2007 flood and currently has 92 based aircraft with annual operations at nearly 48,000. There are 10 conventional hangers and 48 tee hangers and recently a project for a runway viewing area was completed for the family to come and enjoy the air traffic on the south east side of the field. Everyday the airport administration is working to improve the 425 acres of property it manages.

Non-Motorized Facilities.

Walkability has a number of benefits and functions in a community. Increased walking improves the health of the individual and families. It can reduce the number of vehicular trips, thus decreasing pollution and traffic congestion. Walking can also improve the sense of being “connected” to various parts of the city, increasing our sense of community. Sometimes walkability is described in terms such as “pedestrian mobility” and “pedestrian orientation.”

To encourage walking, a community can provide a streetscape sensitive to pedestrians. This includes protection from vehicular traffic, street crossings at a pedestrian scale, amenities such as landscaping, street furniture in high traffic areas, and lighting. Walking should be convenient, safe, and pleasant. It should also provide easy access to major destinations, including transit facilities, so that cars are not needed for every trip.



Many factors determine whether it is possible to walk or bike to destinations near home. The best researched elements are proximity—having made walking easier destinations nearby to walk to—and connectivity— safe and direct ways to make the trip. - **Proximity** is usually measured through the mix of homes, shops, schools, and other destinations. Density is an important measure because more compact places support a richer mix of destinations near home. **Connectivity** is measured by whether the street network provides direct routes and whether facilities provide safe connections for pedestrians and bicyclists. (Saelens, B.E., Sallis, J.F. & Frank, L.D. (2003) Environmental correlates of walking and cycling: Findings from the transportation urban design, and planning literatures. *Annals of Behavioral Medicine*, 25, 80-91.)

Examples are:

- ‘Grid’ street networks can increase biking and walking by reducing trip distances, offering alternative pathways, and slowing automobile traffic.
- Sidewalk continuity and street connectivity can motivate pedestrians to take more non-work trips by foot.
- Planned Unit Developments encourage walkable neighborhoods by allowing mixed use, higher density, connected streets and pedestrian facilities.

A quality design task of the Chehalis Renaissance Plan includes the “(enhancement of) Market & Boistfort downtown, including extending curbs and walkways at downtown intersections”. Other tasks of the plan occur in the area of traffic and parking:

- Designate Park Street one-way at library
- Incorporate left turn lanes for Main Street
- Install angle parking where feasible in downtown
- Realign West Street/Market Boulevard

(Chehalis Community Renaissance Team Overview, January 2010)

Sidewalks serve a majority of city streets. Most roads in the industrial/commercial areas and north of the CBD are improved to a rural standard with shoulders but without sidewalks, curb and gutter. Bicycle paths are designated on several streets throughout the city, as shown in *Figure T-8*.

Walking and hiking trails may link major environmental assets, park and recreational facilities, community centers, and historical features throughout the city. Generally, walking and hiking trails may exist as dirt or gravel or bark surfaced routes on interior alignments through environmental features. Portions of the system within the more densely developed areas may occur as sidewalks or boardwalks with urban streetscape furnishings and amenities.

Walking and hiking trails may be developed, where possible, in alignments separate from vehicular or other motorized forms of transportation. For example, walking and hiking trails may be located within natural drainage corridors, wooded ravines, and utility easements. In some instances and for short duration, walking and hiking trail systems may be developed as improvements within the right-of-way of established vehicular or other transportation corridors.

Generally, walking and hiking trails may be developed to Washington State Department of Transportation (WSDOT), US Forest Service (USFS), or Washington State Recreation Conservation Office (RCO) walking trail standards with a crushed rock, or compacted dirt base. Most trail segments may be handicap accessible and usable by all age and skill groups. In the most urban or park sites, walking and hiking trails may be developed with an asphalt or concrete surface,

handicap accessible and usable by all age and skill groups. Some trails are part of multipurpose trail systems; other trails are exclusive walking/hiking trails.

Walking and hiking trail corridors may be located to coincide with other park and recreational improvements or public facilities to access rest stops, parking lots, restrooms, and other services.

Walking and hiking trail corridors may be independent properties or include portions of other sites provided for resource activities, athletic facilities, and other park and recreational or public facility properties. Linked with conservation areas and resource activities, the walking and hiking trails may create a system of interconnected greenways to integrate and define the urban and natural portions of the Island in accordance with the Growth Management Act's (GMA) provisions for urban separators.

Vision

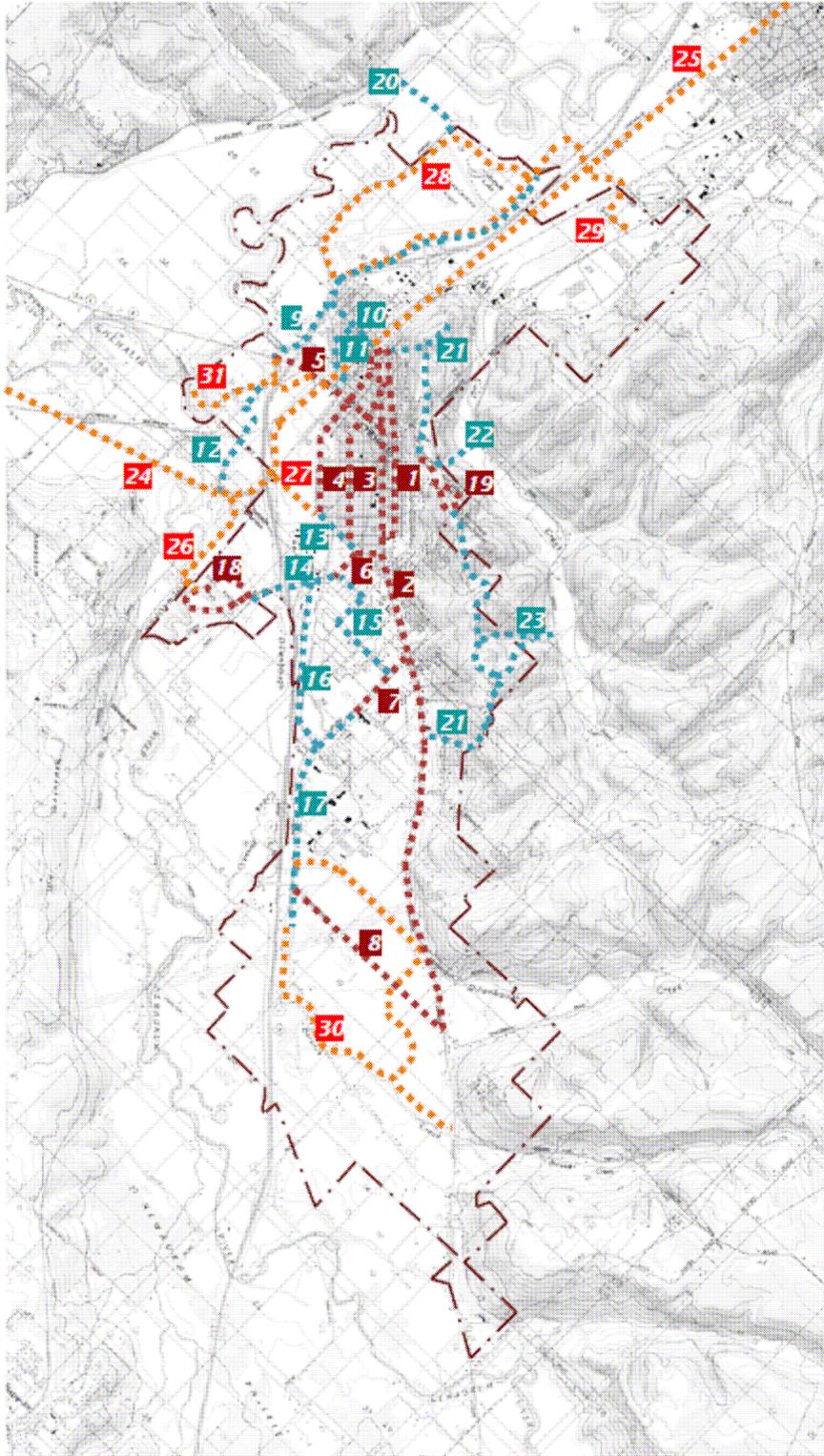
As described, the walking and hiking trails vision may be realized by providing recreational

Chapter 4: Plan elements Chehalis Park, Recreation & Open Space Plan

trail opportunities in the city that:

- access natural features that may not be available otherwise,
- link open spaces and other conservation areas into a greenway system,
- serve persons with varied physical abilities and skills,
- establish high visibility and volume pedestrian routes through the most developed urban areas and park sites,
- where practical, expand the park system to connect with public properties,
- where practical, expand roadway corridors to provide recreational and commuter trail opportunities.

Figure T-6



Walkways/hiking trail

Existing on-road walkways

- 1 South Washington Avenue
- 2 Market Boulevard
- 3 SW Cascade Avenue
- 4 SW Chehalis Avenue
- 5 Main Street
- 6 SW 13th Street
- 7 SW 20th Street
- 8 Maurin Road

Proposed on-road walkways

- 9 Louisiana Avenue
- 10 West Street
- 11 St Helens/Pennsylvania
- 12 Riverside Road
- 13 William Avenue
- 14 Parkland Drive
- 15 Snively/16th/Mills
- 16 Interstate Avenue
- 17 Bishop Road

Existing off-road hiking trails

- 18 Stan Hedwall Park
- 19 John Dobson/McFadden Parks

Proposed off-road hiking trails

- 20 Airport Mitigation
- 21 Ridgetop Trail
- 22 Coal Creek Stormwater Spur
- 23 Coal Creek Road Spur

Existing off-road multipurpose

- 24 Willapa Hills Rails to Trail

Proposed off-road multipurpose

- 25 Tacoma Rails to Trail
- 26 Stan Hedwall Spur Trail
- 27 Recreation Park Spur Trail
- 28 Chehalis/Centralia Airport Loop Tr
- 29 Salzer/Coal Creek Spur Trail
- 30 Dillenbaugh/Berwick Creek Loop Tr
- 31 Dillenbaugh/Alexander Park Spur

** Subject to revision and approval by City Council of Port of Chehalis wetland mitigation plan.*

Multipurpose trails link major environmental assets, park and recreational facilities, community centers, and historical features in Chehalis. Generally, multipurpose trails are developed to provide for several modes of recreational and commuting use where appropriate.

To the extent possible, multipurpose trails occur within corridors separate from vehicular or other motorized forms of transportation. For example, multipurpose trails may be located on utility easements or in separate property alignments. In some instances, the trail may be developed as improvements within the right-of-way of established vehicular or other transportation corridors. Typically, multipurpose trails may be developed to Washington State Department of Transportation (WSDOT) and American Association of State Highway & Transportation Officials (AASHTO) trail standards. The trails may be concrete, asphalt or very fine crushed rock base, handicap accessible and usable by all age and skill groups.

Trail corridors may be improved with trailhead services including rest stops, parking lots, restrooms, water, and air utilities. Where the trail is located in association with another park and recreational improvement or public facility, the trailhead may be improved with active picnic, playgrounds, and play areas.

Multipurpose trail corridors may be independent properties or include portions of other sites provided for resource conservancies, resource activities, athletic facilities, and other park and recreational or public facility properties. Linked with resource conservancies and resource activities, the multipurpose trails element plans may create a system of interconnected greenways to integrate and define the developed portions of the urban area in accordance with the Growth Management Act's (GMA) provisions for urban separators.

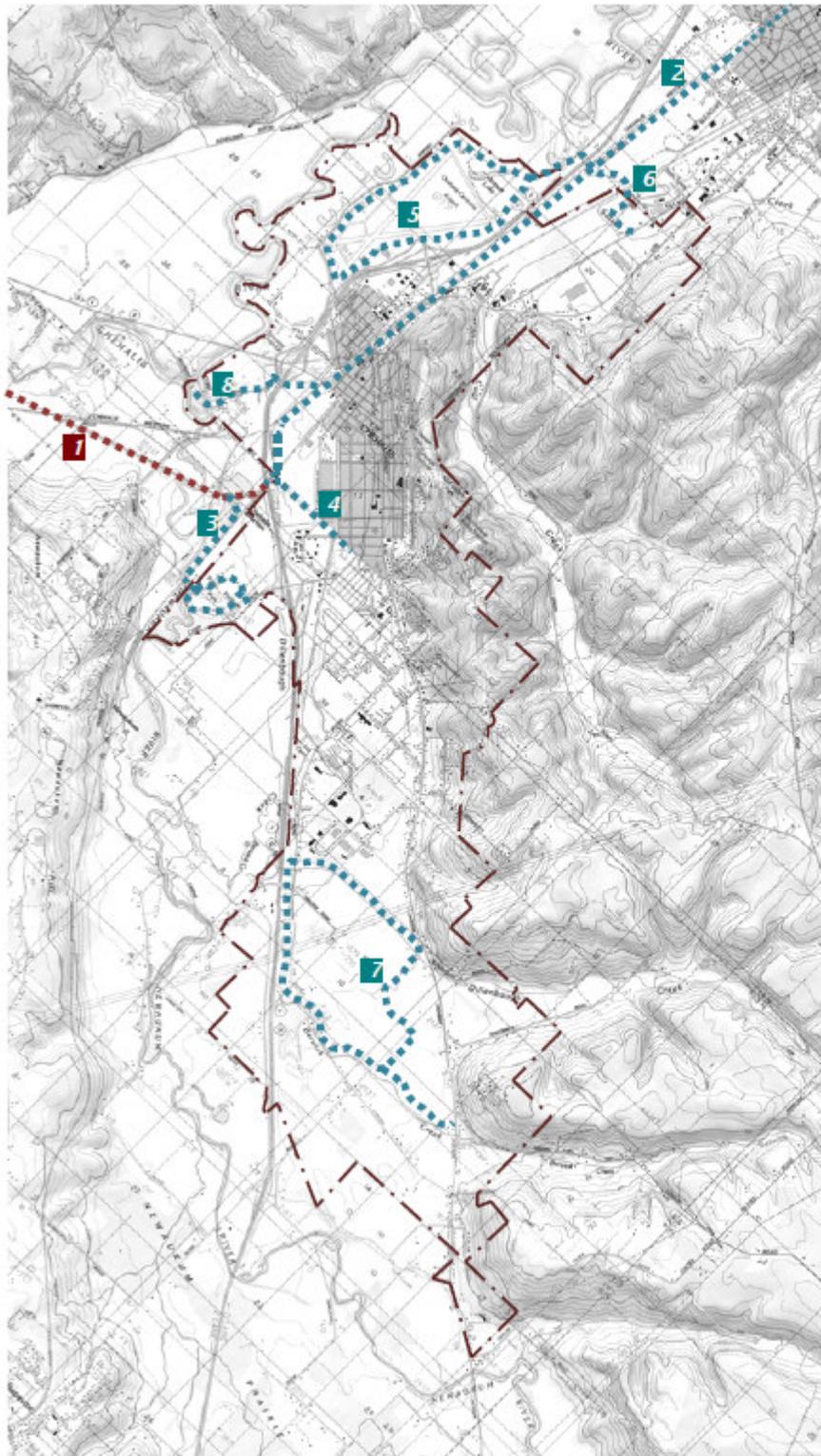
Multipurpose trail corridors may be developed on other publicly owned lands using public use agreements or special easements; or on lands owned as portions of road and highway right-of-way, stream corridor conservation or buffer zones of independent title.

Vision

As described, the multipurpose trails vision may be realized by providing recreational trail opportunities that:

- conserve natural features,
- define urban identities,
- link community facilities,
- serve persons with varied physical abilities and skills, and
- promote commuter and other more functional transportation methods.

Figure T-7



Multipurpose trails

Existing multipurpose trails

1 Willapa Hills Rails to Trail

Proposed multipurpose trails

2 Tacoma Rails to Trail

3 Stan Hedwall Spur Trail

4 Recreation Park Spur Trail

5 Chehalis-Centralia Airport Loop Tra

6 Salzer/Coal Creek Spur Trail

7 Dillenbaugh/Berwick Creek Loop Tr

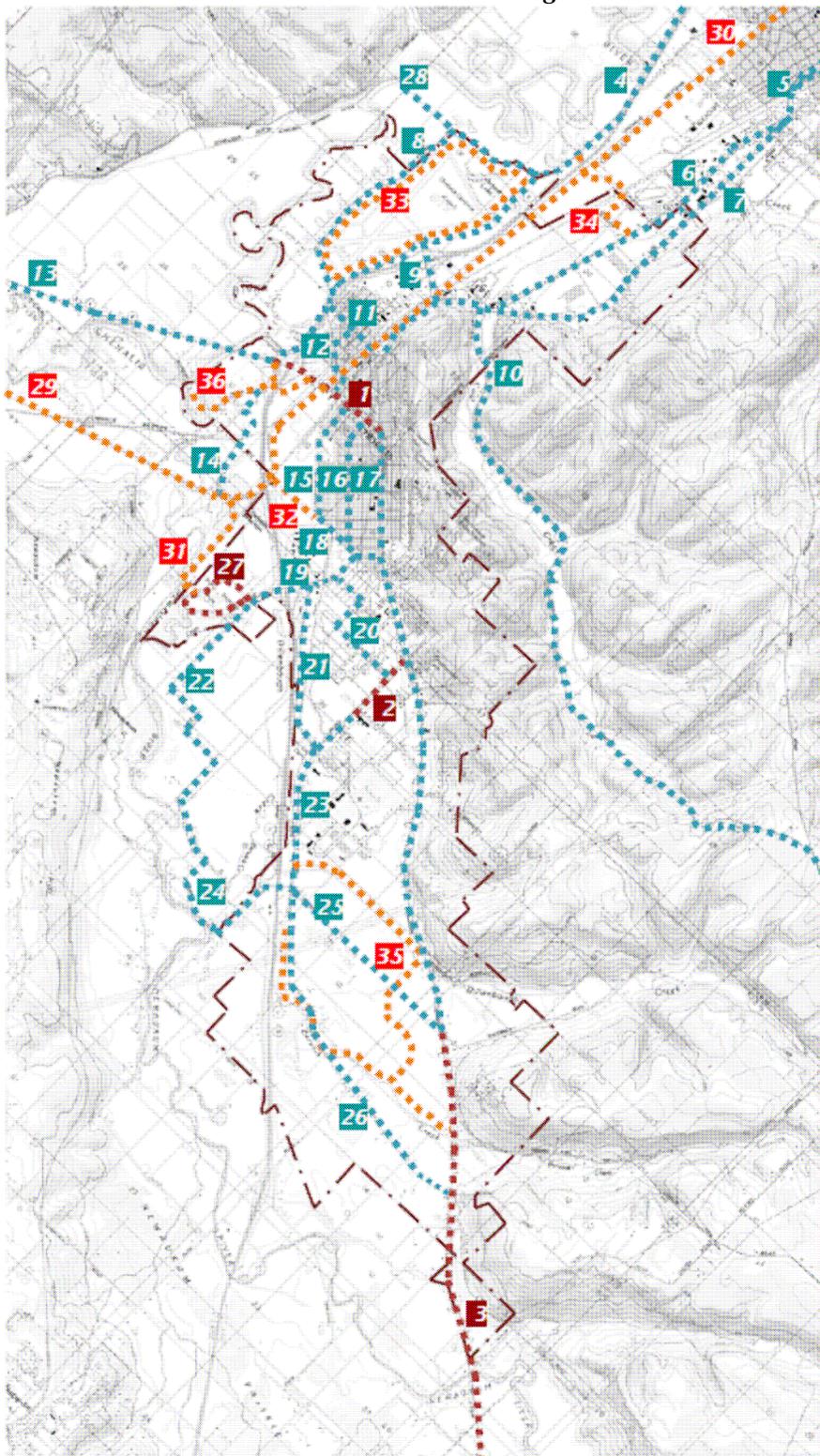
8 Dillenbaugh/Alexander Park Trail

City-wide bicycle touring and commuter routes will be developed to access major environmental assets, park and recreational facilities, historical features, scenic corridors and vistas, and other features of interest to experienced bicycle touring enthusiasts throughout Chehalis. Where appropriate and to the extent practical and safe, bicycle touring routes will be extended into neighborhoods to create an integrated on-road bicycling system. The local on-road bicycling system will provide access to local parks and recreational facilities, schools and public facilities, community centers and business districts, places of employment, and transit transfer centers for adult and youth bike riders from local areas. Quality bike touring is important to the community. Chehalis is a long time host of the Seattle-to-Portland (STP) biking event. To the extent possible, bicycling touring routes will be developed to Washington State Department of Transportation (WSDOT) or American Association of State Highway & Transportation Officials (AASHTO) standards with expanded, designated or marked road shoulders and lanes. In the less congested areas, bicycle-touring routes will be simply designated for joint vehicular/bicycle use.



Bicycling enthusiasts working in conjunction with Lewis County, WSDOT, and other public and private cycling interest groups have designated most of the bicycle touring routes proposed within this plan in the recently adopted Community Pathway Feasibility Study. Future public bicycle touring development projects will use the same cooperative, joint venture approach to designate and improve routes and trailheads and/or to develop new on-road routes, rest stops, and other bicycle touring or commuting services.

Figure T-8



Bicycle routes

Existing on-road bikeways

- 1 Main Street
- 2 Bishop Road
- 3 Market Street/Jackson Highway

Proposed on-road bikeways

- 4 Louisiana Avenue/Airport Road
- 5 Pearl/Tower Avenue Couplet
- 6 North National Avenue
- 7 NE Kresky Road
- 8 NW Airport Road
- 9 Chambers Way
- 10 Coal Creek Road
- 11 West Street
- 12 Quincy/St Helens/Pennsylvania
- 13 SR-6/Ocean Beach Highway
- 14 Riverside Drive
- 15 Chehalis Avenue
- 16 Cascade Avenue
- 17 Market Boulevard
- 18 William Avenue
- 19 Parkland Drive/13th Street
- 20 Snivey/16th/Mills
- 21 Interstate Avenue
- 22 Rice Road
- 23 Bishop Road Extension
- 24 Labree Road
- 25 Maurin Road
- 26 Sturdevant Road

Existing off-road biking trails

- 27 Stan Hedwall Park

Proposed off-road biking trails

- 28 Airport Mitigation

Existing off-road multipurpose

- 29 Willapa Rails to Trail

Proposed off-road multipurpose

- 30 Tacoma Rails to Trail
- 31 Stan Hedwall Spur Trail
- 32 Recreation Park Spur Trail
- 33 Chehalis/Centralia Airport Loop
- 34 Salzer/Coal Creek Spur Trail
- 35 Dillenbaugh/Berwick Creek Loop
- 36 Dillenbaugh/Alexander Park Spur

* Subject to revision and approval by City Council of Port of Chehalis wetland mitigation plan.

Rail trails, which may combine railroad trains with other forms of non-motorized trail use, will preserve historic railroad corridors linking urban areas with major parks, landscapes, and scenic corridors.

Rail trails will maintain existing railroad tracks to allow recreational or scenic train rides with possible shared use for general freight, passenger, and other more commercial rail activities where compatible. Recreational or scenic train rides will in turn, extend and incorporate hike and bike opportunities between the train destinations, as return trips, and for spur or short trips off the main line.

To the extent possible, rail trails will utilize historic or period running stock to preserve the original experience and maintain equipment. Rail trail stations, destinations, and stopping points will be improved with trailhead services including rest stops, parking lots, and transit connections. Where the rail trail is located in conjunction with another trail use or park or public facility, the trailhead may be improved with active picnic, playgrounds, and play areas, restrooms, water, and other utilities.

Rail trails may be contained within the original railroad easements or ownership, or as extensions of the public road right-of-way or include portions of other public sites. Rail trail improvements and/or rolling stock may also be developed and maintained on privately owned lands or operations subject to public use agreements or public access easements.

Vision

As described, the rail trail vision will preserve historic, scenic, and recreational trail opportunities between the most urban developed areas and scenic destinations that:

- conserve natural features,
- preserve historic improvements and artifacts,
- link urban areas and recreational destinations,
- serve persons with varied physical abilities and skills, and
- link rail trail uses with other non-motorized trails.

Historic Steam Train

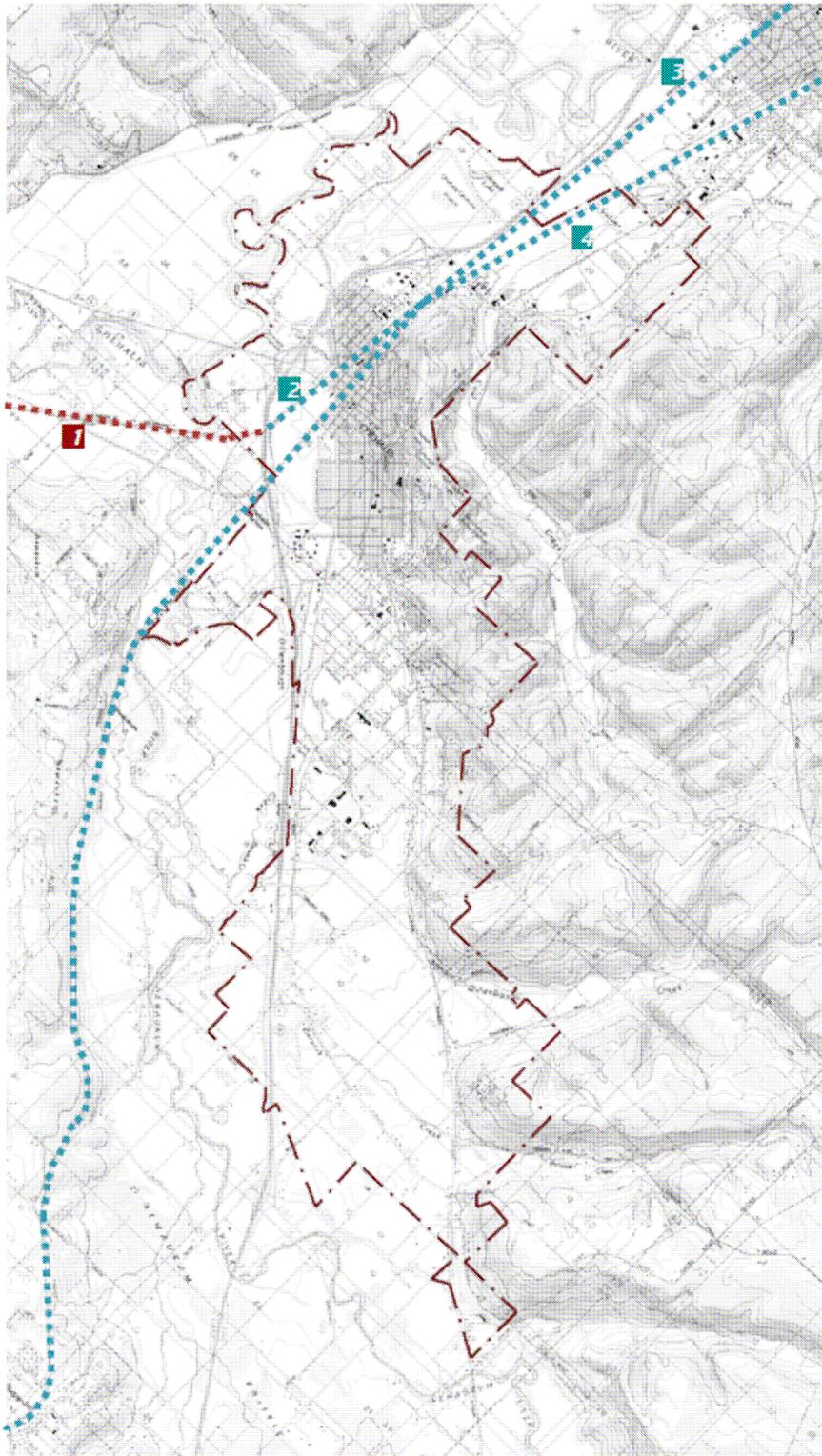
The Chehalis-Centralia Railroad Association was formed in 1986 as a non-profit corporation. The founders were a group of local citizens whose goal was to restore a 1916 logging locomotive that had been placed in a Chehalis park thirty years earlier.

Early the following year, the restoration was begun; and over the next two years, several railroad cars were acquired. With restoration completed, scheduled operations began in the summer of 1989 over a section of former Milwaukee Road track in the Chehalis-Centralia area.



It is one of only a few steam powered standard gauge tourist railroads in the State of Washington. The trains operate over a nine-mile section of track that extends southwest from Chehalis. This historic rail line was previously operated by the Milwaukee Road, and later the Chehalis Western Railroad. The line winds through scenic hills, farmland, and over several wooden trestles.

Figure T-9



Rail trails

Existing rail trail

1 Chehalis-Centralia Steam Train

Proposed rail trails

2 Dillenbaugh Creek Station

3 Tacoma Rail

4 BNSF Railroad Excursions

Parking. The provision of adequate, off-street parking is a basic requirement of new development within the city. In addition, on-street parking is provided on many city streets, especially in the CBD and surrounding area. While there are occasional times when the availability of parking within the CBD is at a premium, there is generally adequate parking at this time to serve the various needs of this area. Future development or re-development within the CBD may require a closer examination of parking needs.

FUNCTIONAL CLASSIFICATION

State law requires that cities and counties have a street classification system that is consistent with state and federal guidelines. The legal basis for the classification of streets is found in RCW 35.78.10 and RCW 47.26.180, which state in part that arterial designation and classification shall be an integral and

coordinated portion of the planning process. The functional classification of the roadways is intended to guide future use and development of the roadway and adjacent properties. It directly relates to the design standards that are adopted through city ordinance.

The city of Chehalis classifies streets as major (principal) arterials, minor (secondary) arterials, collectors, and local streets. Arterial streets are designed to provide a continuing network for efficient flow of through traffic, with minimal direct access to abutting land uses.

Collectors connect residential and commercial areas to through streets. Local streets serve local abutting land uses and neighborhoods (primarily residential).

Most arterial intersections are stop sign controlled. Several intersections are traffic signal controlled. These signals are concentrated along Chamber of Commerce Way and Market Boulevard. Additional signalization, particularly at the intersections of Main Street with Market Boulevard, Cascade Avenue, Chehalis Avenue, and State Avenue, is now under construction.

ROADWAY CAPACITY

The Washington State Growth Management Act requires jurisdictions to establish level of service (LOS) standards for arterials and transit. Local governments have broad discretion to choose which standards make sense for them and how the level of service will be measured. Typically, such standards describe only the level of congestion or traffic flow, not the type or quality of the roadway itself. LOS is a key measure for determining transportation concurrency, as summarized below.

“Transportation concurrency” is a term that describes whether a roadway is operating at its adopted LOS standard. The adopted standard indicates a jurisdiction’s intent to maintain transportation service at that level. Clearly, this has budgetary implications. If a city adopts a high LOS standard, it will have to spend more money to maintain the roadways than if it adopts a low LOS standard. On the other hand, a standard that is too low may lead to an unacceptable service level and reduce livability for the community or neighborhood. Under the Growth Management Act, if a development would cause the LOS to fall below the jurisdiction’s adopted standard, it must be denied unless adequate improvements

or demand strategies can be provided concurrent with the development. The key is to select a balanced standard—not so high as to be unreasonable to maintain and not so low as to allow unacceptable traffic congestion.

LOS is frequently considered a quantitative measure meant to indicate the operating condition, related to traffic flow or congestion, of either a roadway segment or an intersection. While some cities are exploring alternative LOS indicators, many use LOS standards that indicate levels of congestion based on the amount of delay at **intersections**.

Delay is considered to be a measure of mobility and access; it reflects the excess travel time accrued by motorists due to less than ideal traffic conditions. The amount of delay at intersections has been categorized into levels of service. Schematic illustrations of the methodology used in determination of LOS and LOS criteria for signalized and non-signalized intersections are shown in Appendix B.

Some jurisdictions prefer to measure LOS based on **roadway segments**, rather than (or in addition to) intersections. LOS for roadway segments is based on calculations of traffic flow and speed. For more explanation of how LOS is measured on arterial segments, see Appendix C.

The *Highway Capacity Manual* (HCM, 2000 edition) is the recognized source for techniques used to measure transportation facility performance. Using the highway manual procedures, the quality of the traffic operation is graded into one of six levels of service: A, B, C, D, E, or F. Appendix D illustrates characteristic traffic flows for each of the six levels. LOS is typically measured for the heaviest travel time during a given day; for the City of Chehalis and most communities within the region, this is the evening commute hour (i.e., “PM Peak Hour”) during a weekday.

When determining appropriate LOS standards, a community must consider and balance issues such as:

- Cost of construction, right-of-way, maintenance, and operation
- Consequences of congestion and inconvenience, including the potential for diverting through-traffic to local streets, and driver costs in vehicle maintenance
- Safety, to include accident prevention and emergency response
- Impacts to residents, motorists, and businesses
- Impacts to pedestrians and bicyclists using the roadway
- Impacts to the natural environment, including reduced air or water quality
- LOS standards in adjacent jurisdictions and the sharing of roads and intersections. (See *Figure T-13*)

Appropriate level of service standards will help ensure that the transportation system can adequately serve expected growth and development. In addition, the service level policy can become the basis for establishing a traffic impact mitigation fee system to provide “fair share” funding of needed transportation improvements. The level of service policy can also be used as an environmental impact review criteria under the State Environmental Policy Act (SEPA) or any law that provides for impact mitigation as a basis for conditioning or denying proposed developments.

Level of Service Methodology for Intersections'

Level of Service' is a qualitative measure describing operational conditions within a traffic stream, and the perception of those conditions by motorists. LOS is computed using procedures outlined in

the 1994 Highway Capacity Manual (Transportation Research Board, Special Report 209, 1994).

Figure T-10 Level of Service (LOS) Criteria

LEVEL OF SERVICE (LOS)	SIGNALIZED INTERSECTION STOPPED DELAY/VEHICLE	UNSIGNALIZED INTERSECTION STOPPED DELAY/VEHICLE	EXPECTED DELAYS
A	< 5.0 seconds	< 5.0 seconds	Little or no delay
B	5.1 to 15.0 seconds	5.1 to 10.0 seconds	Short traffic delays
C	15.1 to 25.0 seconds	10.1 to 20.0 seconds	Average traffic delays
D	25.1 to 40.0 seconds	20.1 to 30.0 seconds	Long traffic delays
E	40.1 to 60.0 seconds	30.1 to 45.0 seconds	Very long traffic delays
F	> 60.0 seconds	> 45.0 seconds	Extreme delays*

For both unsignalized and signalized intersections, LOS is defined in terms of delay, driver frustration, fuel consumption, and lost travel time. There are six levels of service ranging from LOS A to LOS F, with LOS A representing the best operating conditions and LOS F the worst. Specifically, LOS criteria is stated in terms of the average stopped vehicle delay for a peak 15-minute analysis period, factored to a full hour, for the intersection as a whole. **Figure T-10** provides the LOS criteria for both signalized and unsignalized intersections. For signalized intersections, delay is a complex measure and is dependent upon a number of variables, including the quality of progression, the cycle length, the ratio of green signal time to total cycle length, and the volume-to-capacity ratio for the lane group in question. *When demand volume exceeds the capacity of the movement, extreme delays will be encountered with queuing that may cause severe congestion affecting other traffic movements in the intersection.

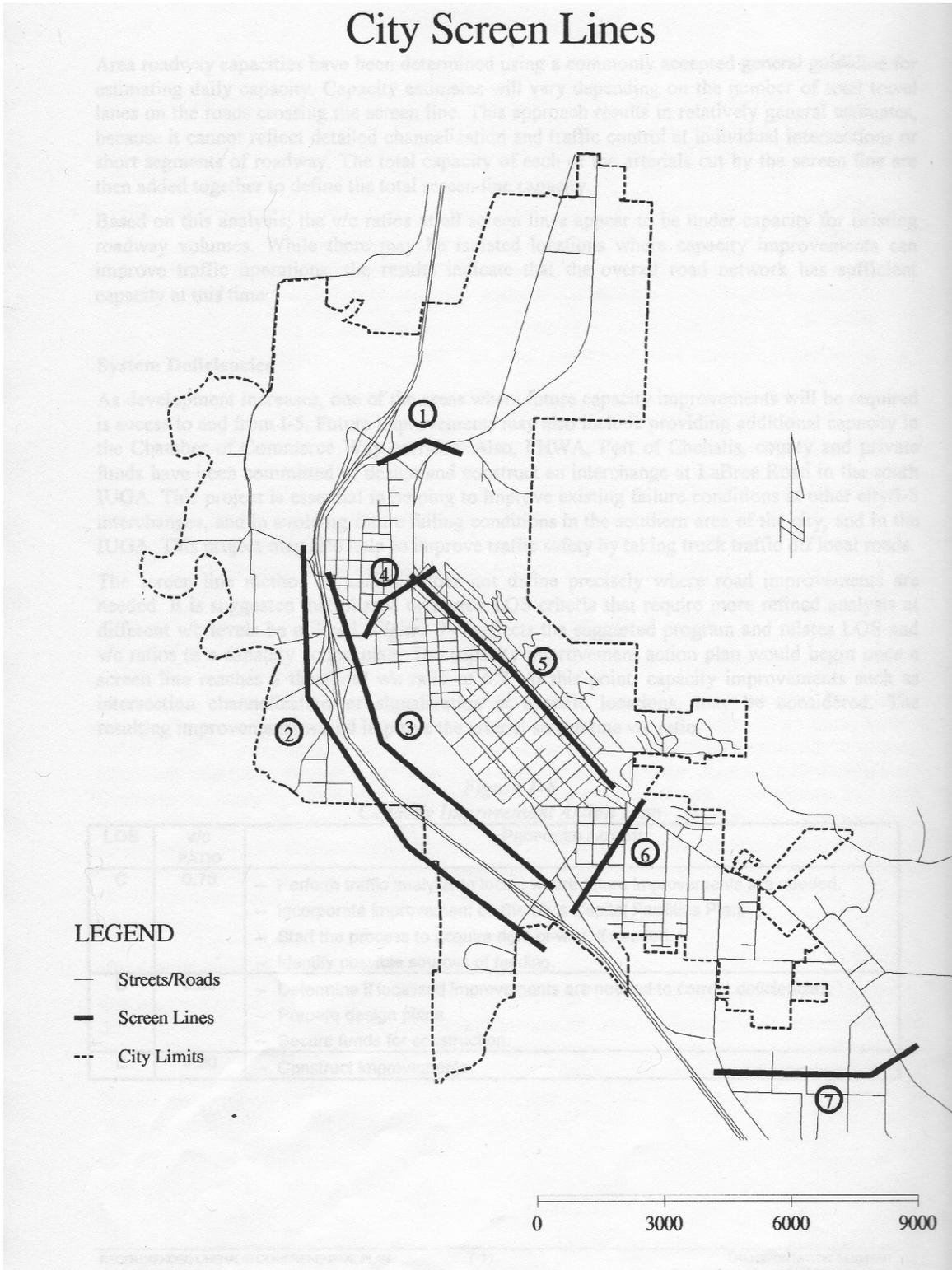
The LOS criteria for non-signalized intersections differ from the criteria used for signalized intersections. The primary reason for the difference is that drivers expect different levels of performance from different kinds of intersections. Drivers expect that signalized intersections will carry higher traffic volumes than non-signalized intersections. Additionally, several driver behavior considerations (such as driver attentiveness and delay) combine to make delays at signalized intersections appear to be less onerous than at non-signalized intersections. Thus, it is considered that the delay threshold for any LOS is less for a non-signalized intersection than for a signalized intersection.

SOURCE: David Evans and Associates, Inc.

Capacity Analysis and Screen Lines

To evaluate how the roadway network is operating, the peak-hour volume traveling on a street is compared with the street's capacity. A way to estimate LOS is to examine the volume-to-capacity (v/c) ratio of a roadway. When the v/c ratio approaches 1.0, then the street system is approaching capacity. To analyze the city's street network, groups of streets leading to and from sub-areas of the city were defined as 'screen lines' to measure the amount of traffic crossing them. Screen lines are a commonly accepted tool for evaluating the transportation network that serves a large geographic area. They assume that travel behavior will change, and that drivers will seek alternate routes as traffic congestion increases. They are effective in testing the effects of long-range land use plans on

Figure T-12 is a map showing the general locations of the screen lines used.



SOURCE:
 David
 Evans
 and
 Associates, Inc

Area roadway capacities have been determined using a commonly accepted general guideline for estimating daily capacity. Capacity estimates will vary depending on the number of total travel lanes on the roads crossing the screen line. This approach results in relatively general estimates, because it cannot reflect detailed channelization and traffic control at individual intersections or short segments of roadway. The total capacities of each of the arterials cut by the screen line are then added together to define the total screen line capacity.

Based on this analysis, the v/c ratios at all screen lines appear to be under capacity for existing roadway volumes. While there may be isolated locations where capacity improvements can improve traffic operations, the results indicate that the overall road network has sufficient capacity at this time.

System Deficiencies As development increases, one of the areas where future capacity improvements will be required is access to and from I-5. Future improvements may also include providing additional capacity in the Chamber of Commerce Way corridor. Also, FHWA, Port of Chehalis, county and private funds have been committed to design and construct an interchange at LaBree Road in the south IUGA. This project is essential in helping to improve existing failure conditions at other city/I-5 interchanges, and in avoiding future failing conditions in the southern area of the city, and in the IUGA. This project may also help to improve traffic safety by taking truck traffic off local roads.

The screen line method of analysis does not define precisely where road improvements are needed. It is suggested that phased or staged LOS criteria that require more refined analysis at different v/c levels be utilized. *Figure T-13* reflects the suggested program and relates LOS and v/c ratios to a capacity action plan. The capacity improvement action plan would begin once a screen line reaches a threshold v/c ratio of 0.8. At this point, capacity

Figure T-13 Capacity Improvement Action Plan

LOS	V/C RATIO	PROPOSED ACTION
D	0.80	-Perform traffic analysis to locate where future improvements are needed. -- Incorporate improvement on the city's Capital Facilities Plan. -Start the process to acquire right-of-way, if needed. -Identify possible sources of funding.
E	0.90	-Determine if localized improvements are needed to correct deficiencies (e.g. mitigation identified in a project TIA). -Prepare design plans. -Secure funds for construction.
F	1.00	-Construct improvements.

Figure T-14 Design Year Screen Line Results

SCREEN LINE AREA	DESCRIPTION	1998 v/c RATIO	2004 v/c RATIO	2018 v/c RATIO
1	North Commercial	.74	.85	1.17
2	West City @ I-5	.62	.74	1.00
3	Central City @ I-5	1.05	1.22	1.59
4	South CBD	.35	.43	.62
5	East-West Central City	.12	.14	.19
6	South City Center	.81	1.15	1.83
7	South IUGA	.68	1.28	2.50



Six Year Transportation Improvement Program
From 2010 to 2015

Agency: Chehalis
 Co. No.: 21 Co. Name: Lewis Co.
 City No.: 0190 MPO/RTPO: NON/SWW
 Hearing Date: 6/8/2009 Adoption Date: 6/22/2009
 Amend Date: 3/6/2010 Resolution No.: 6-2010

Functional Class	Priority Number	Project Identification A. PIN/Federal Aid No. B. Bridge No. C. Project Title D. Street/Road Name or Number E. Beginning MP or Road - Ending MP or Road F. Describe Work to be Done	Improvement Type(s)	Status	Total Length	Utility Codes	Project Costs in Thousands of Dollars						Expenditure Schedule (Local Agency)				Federally Funded Projects Only										
							Federal Funding		State Fund Code		State Funds		Local Funds		Total Funds		1st	2nd	3rd	4th Thru 6th	Evis. Type	RW Required Date (MM/YY)					
							Federal Fund Code	Federal Cost by Phase	State Fund Code	State Fund Code	State Funds	Local Funds	Local Funds	Total Funds													
19	8	Shively Avenue Improvements from: SW 16th to: SW 20th Planing, design and construction of street improvements including roadway reconstruction & widening, bike lanes, streetlights, sidewalks and other related work.	06 12 03 04	P	.44		10	11	12	13	14	15	16	17	18	19	20	21	Yes	06/1/2011							
14	9	Kraskey Avenue Flood Mitigation Project from: NE Exhibitioner to: NE Scott Johnson Blvd Project to raise roadway to allow NE Kraskey to remain open during flood events. Kraskey to be raised between NE Exhibitioner and NE Scott Johnson Blvd (City Limits)	06	P	.25	C O D P W																No					
Totals													1260	974	2234	320	1014										
Totals																											
Grand Totals for Chehalis														1162	1006	2168	105	2003									

In addition, the city has been working cooperatively with WSDOT to ensure that the project to construct the additional I-5 interchange at LaBree Road is designed and constructed as quickly as possible, in order to help correct existing and anticipated future deficiencies.

The CIP and the STIP are also expected to be updated annually.

Lewis County Strategic Plan 2009-2012

Numerous highway improvements are needed to ensure that Lewis County continues to function as a vital economic engine that sustains its own citizens and actively contributes to the overall economy of Washington State. In close coordination with the City of Chehalis and the State of Washington, Lewis County is planning the following improvements from 2009-2012:

- Completion of improvements to the Chamber Way Interchange;
- LeBree Interchange and 13th Street to Rush Road widening;
- Completion of the Louisiana Street – Airport Way improvement project.

Longer-term improvements include:

- Integrated flood mitigation for Centralia-Chehalis-Interstate 5 corridor;
- Freeway widening from Harrison to 13th Street;
- Freeway widening from Rush Road to the Cowlitz County Line.

Methodology for Traffic Forecasts

The GMA requires that the Transportation element include a 'forecast of traffic for at least ten years based on the adopted land use to provide information on the location, timing and capacity needs of future growth.' This element uses the same 20-year horizon used in the land use element. Travel forecasts were developed based on growth projections for Chehalis, the IUGA, and surrounding areas. Based upon these forecasts and an analysis of the alternatives considered, a framework was established for development of a transportation plan. This framework permits the identification and prioritization of transportation system improvements shown in the Capital Facilities plan (CFP). The methodology examines future travel demands by analyzing local traffic and through traffic using commonly accepted methods. A full description of the methodology is included in *Appendix B*.

Level of Service Standards and Forecast Levels of Service

Traffic volumes and capacities were defined for the preferred alternative for each of the screen lines for each horizon year. They are summarized in *Figure T-14*.

This analysis indicates that area 3 (Central City at I-5) is currently failing, and that areas 6 and 7 (South City Center and South IUGA) will fail by 2004 unless improvements are undertaken. The planned LaBree Road interchange will be an important component of the strategy needed to improve conditions. By 2018 additional steps in these areas may also be necessary. The analysis also indicates that area 5 (East-West Central City) will retain significant traffic capacity throughout this planning period. The analysis may lead to strategies to channel development to areas with sufficient capacity, while discouraging growth in areas experiencing higher congestion. As another observation, screen line area 6 (South City Center) is the city's 'gateway' to the industrial area in the IUGA. Capacity limitations in this

area may tend to limit north-south access, thus isolating the industrial area from the city. Strategies to address this potential problem will need to be examined. Depending on the pace of development, strategies may include increasing the capacity of Market Boulevard or other north-south streets in this area.

Maintenance

Recent flooding has accelerated the deterioration of the substructure of some arterial roads in Chehalis. The severity of these floods has caused some of the sub-bases to deteriorate and, with continued heavy traffic demand, is resulting in structural damage to the sub-base and pavement. Considering the investment in right-of-way and construction that the city has in these facilities, maintaining existing arterial streets (particularly those adversely impacted by the recent flooding) should be a priority for the city.

Targeted Capacity Improvements

During the first 15 years of this plan, the majority of growth and development within the city is likely to involve the use or re-use of underutilized land, and infill of properties served by the existing infrastructure. There will also be continued growth due to increases in general mobility. Without improvements in road capacity, there will be added pressures on the roadway network. Recent improvements to Chamber of Commerce Way and Main Street reflect the city's attention to these aspects of the road improvement program.

Periodic monitoring of capacity condition within the study area, and particularly at arterial and collector intersections, should be continued and, where improvement is possible, changes to improve capacity and safety should be pursued. As growth to the south occurs, such intersection capacity improvements are likely along the Jackson Highway where Port-related development may occur.

Arterial Street Extensions

Local infrastructure to serve major new developments will be needed to carry traffic between the new development, other areas within the city, and I-5. A more concise development plan for this area should be pursued so that more refined alignments can be defined. Then, as new development opportunities arise, the city and new development can use this basic structure to guide construction. Initial planning for these alignments should occur as early as possible so that a plan is in place when new development opportunities present themselves.

GOALS AND POLICIES

Growth Management Act Goals

RCW 36.70A.020 lists 13 growth management goals. Two of those goals apply most directly to the

Transportation element:

3. *Transportation.* Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

12. *Public facilities and services.* Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

Countywide Planning Policies

The following goal and its 17 implementing policies are excerpted directly from Lewis County's County-wide Planning Policies. Under GMA, the city's goals and policies may not conflict with these policies.

3. *Transportation.* Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with County and City comprehensive plans.

3.0 The Transportation Element of the Comprehensive Plan should be designed to: 1) facilitate the flow of people, goods and services so as to strengthen the local and regional economy; and 2) conform with the Land Use Element of the Comprehensive Plan.

3.1 Level of Service (LOS) standards and safety standards shall be established that coordinate and link with the urban growth and urban areas to optimize land use and traffic compatibility over the long term. New or expansion of existing private and public development shall mitigate transportation impacts concurrently with the development and occupancy of the project.

3.2 The County and cities should coordinate agreements to cover situations where the impacts created by new or expanded existing private or public development affect adjoining jurisdictions such as between cities or between the County and cities.

3.3 All-weather road systems that serve industrial and commercial areas shall be coordinated with state and local governments.

3.4 Local jurisdictions should coordinate plans, programs and projects with regional, state and federal agencies to ensure consistency between land use development and transportation facilities.

3.5 State and local governments should ensure adequate road access to scenic and recreational areas, to accommodate local and tourist traffic.

3.6 Airport authorities should maintain and improve airport facilities to safely accommodate current and future air service demands.

- 3.7** State and local agencies should reduce conflicts between rail and vehicular traffic wherever possible and support enhancement of rail and high-speed rail planning efforts in the region.
- 3.8** The County and cities should encourage the use of alternative transportation modes, including mass transit, bicycles, and carpooling when developing improvement programs, designing new development and standards.
- 3.9** Cost effectiveness shall be a consideration in transportation expenditures decisions and a balance established for both safety and service improvements.
- 3.10** Local and State agencies should investigate a full range of actions when improving regional transportation facilities, including transportation systems and demand management programs to improve efficiency and mitigate environmental impacts.
- 3.11** State and local agencies should identify hazardous locations on the regional road system and target resources toward those goals.

City Goals and Policies

Streets

T.01 *To provide facilities, access and circulation for all land uses to promote the free and safe movement of people and goods.*

T.01.01 Utilize the 'screen line' system or another appropriate method to monitor changes in traffic volume over time.

T.01.02 Establish a screen line volume/capacity ratio of 0.70 (corresponding with LOS C) as the level at which planning for circulation improvements will begin.

T.01.03 Establish a screen line volume/capacity ratio of 0.80 (or LOS D) as the minimum acceptable service level.

T.01.04 Require new development to mitigate its traffic impacts through construction of improvements.

T.01.05 Design roadway networks to minimize or eliminate the intrusion of non-residential traffic into residential areas.

T.01.06 Develop and implement access control policies to improve safety and circulation on arterial and collector streets.

T.01.07 Ensure that existing arterial streets are maintained and are structurally sound.

T.01.08 Increase intersection capacity at critical locations with auxiliary turn lanes and other traffic operations improvements, as needed.

T.01.09 Work cooperatively with Lewis County and the Washington State Department of Transportation to secure funding for an additional highway interchange to serve the Port of Chehalis industrial area.

T.01.10 Adopt appropriate classification and design standards for all streets and alleys.

T.01.11 Adopt street design standards that include landscaping and other appropriate amenities.

T.01.12 Minimize curb cuts on arterial and collector streets to reduce turning movement conflicts and increase traffic capacity.

Parking

T.02 *To ensure that adequate parking facilities are available for residential and nonresidential uses.*

T.02.01 Provide for adequate off-street parking for all new development.

T.02.02 Permit development and re-development within the Central Business District to utilize on-street parking where feasible.

T.02.03 Prohibit parking for non-residential uses from locating in residential areas.

T.02.04 Adopt parking design standards that include landscaping and other appropriate amenities.

Public Transit

T.03 *To support a local and regional public transit system that provides affordable service to those who do not, cannot, or choose not to drive.*

T.03.01 Promote routes that connect concentrated populations of elderly, youth, low income persons, or persons with disabilities to the hospital, clinics, schools, downtown and other generators of usage.

T.03.02 Promote scheduling of service that best meets the needs of the target populations.

T.03.03 Require the construction of bus shelters and turn-outs (as appropriate) when development, re-development, or rehabilitation projects are considered.

T.03.04 Encourage the provision of passenger transfer stations for inter-city bus lines, adequate to meet needs for movement of passengers and goods to and from Chehalis.

T.03.05 Encourage ridesharing, van pool programs, and other Transportation Demand Management measures that may serve to reduce peak-hour automobile traffic.

Air

T.04 *To promote the use of the Chehalis-Centralia airport to serve specialized transportation needs.*

T.04.01 Continue as an active participant on the Chehalis-Centralia Airport Board.

T.04.02 Develop land use policies for properties surrounding the airport so that the ability of the airport to serve the needs of the public will not be impaired.

Rail

T.05 *To promote rail access that permits the safe, convenient and cost-effective movement of people and goods.*

T.05.01 Encourage the development of terminal and transloading facilities for rail lines that meet the needs of local businesses and industries.

T.05.02 Encourage the construction of rail sidings in industrial areas.

T.05.03 Work cooperatively with rail line owners and WSDOT to maintain existing rail crossings in a safe condition and in good repair.

T.05.04 Encourage the preservation of existing rail lines serving industrial areas.

Non-Motorized Facilities

T.06 To promote a reduction in the use of automobiles by providing for appropriate facilities for pedestrians and bicyclists.

T.06.01 Require the construction of sidewalks in new development where appropriate.

T.06.02 Require new residential development to provide pedestrian pathways to connect to surrounding properties, where appropriate.

T.06.03 Promote the development of bicycle paths, where practicable, when arterial and collector streets undergo significant reconstruction.

T.06.04 Identify areas appropriate for the development of bicycle and pedestrian pathways that can link residential, commercial, industrial, and recreational areas.